

Klickitat County Solid Waste Management Plan - DRAFT



October 2020

Klickitat County Solid Waste Management Plan

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Prepared for:

**Klickitat County
Solid Waste Department
Goldendale, Washington**

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Acronyms and Abbreviations

2013 Plan	Klickitat County Solid Waste Management Plan Update, March 2013
BEI	Burlington Environmental, Inc.
BSE	Bovine Spongiform Encephalopathy
C&D	Construction and Demolition
CEMP	Comprehensive Emergency Management Plan
CFCs	Chlorofluorocarbons
CRD	Columbia River Disposal
CROP	Contamination Reduction and Outreach Plan
CUP	Conditional Use Permit
dba	doing business as
DDMP	Disaster Debris Management Plan
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
ESHB	Engrossed Substitute House Bill
E-Waste	Electronic Wastes
FEMA	Federal Emergency Management Agency
GMA	Washington State Growth Management Act
H5N1	Highly Pathogenic Asian Avian Influenza A
HB	House Bill
HDR	HDR Engineering, Inc.
Health Department	Klickitat County Health Department
HHW	Household Hazardous Waste
LSWFA	Local Solid Waste Funding Assistance
MRW	Moderate Risk Waste
MSW	Municipal Solid Waste
MTCA	Model Toxics Control Act
MW	Megawatts
OFM	Washington State Office of Financial Management
PCS	Petroleum Contaminated Soils
Plan	Solid Waste and Moderate Risk Waste Management Plan
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington



Acronyms and Abbreviations

RFQ/P	Request for Qualifications and Proposals
RRL	Roosevelt Regional Landfill
RRLC	Rabanco Regional Landfill Company
RS	Republic Services, Inc.
SEPA	State Environmental Policy Act
SHB	Substitute House Bill
SQG	Small Quantity Generator
SR	State Route
SWAC	Solid Waste Advisory Committee
SWD	Klickitat County Solid Waste Department
TPY	Tons Per Year
WAC	Washington Administrative Code
WGA	Waste Generation Area
WSDA	Washington State Department of Agriculture
WUTC	Washington Utilities and Transportation Commission



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Executive Summary

Introduction

This Solid Waste Management Plan (Plan) recommends strategies to manage solid waste generated in Klickitat County, Washington, including the cities and towns of Bingen, Goldendale, and White Salmon. Solid waste handling includes management, storage, collection, diversion, transportation, treatment, use, processing and final disposal. Recommendations are provided for municipal solid waste, special wastes, and moderate risk waste.

This Plan was prepared in accordance with Revised Code of Washington 70.95, Solid Waste Management – Reduction and Recycling under the guidance and direction of Klickitat County Solid Waste Department and the Klickitat County Solid Waste Advisory Committee, and supersedes previous Solid Waste Management Plans in Klickitat County.

An important motivation behind the development of this Plan is the need to establish a coordinated, regional approach to solid waste management within counties that enables decision makers to manage resources most effectively, while assuring adequate protection of the environment and public health.

Summary of Recommended Strategies and Additional Costs

A summary of recommended strategies and potential additional costs are presented in Table ES-1. Over the next six years, implementation of recommended strategies is estimated to cost approximately \$73,500 in 2020 dollars. This cost estimate reflects only the new services or programs to be implemented by Klickitat County. It does not reflect costs associated with existing programs, nor does it reflect the significant costs incurred by private firms, public agencies, or residents who also have roles in managing solid waste in Klickitat County.

Table ES-1 Summary of Recommended Strategies and Costs:

Table ES-1. Six-Year Implementation Budget for Additional Costs

Recommendation	Additional Cost by Implementation Year ¹					
	2020	2021	2022	2023	2024	2025
3. Waste Reduction, Recycling and Education						
WWR1) Adopt the updated list of designated materials (Table 3-2) and maintain it through periodic review and updates.	No Additional Costs					
WWR2) Update the Model Rural Recycling Program Plan.	No Additional Costs					
WWR3) Incorporate and expand the education and promotion program.	No Additional Costs					

Table ES-1. Six-Year Implementation Budget for Additional Costs

Recommendation	Additional Cost by Implementation Year ¹					
	2020	2021	2022	2023	2024	2025
WWR4) Continue to provide support for recycling at public events.	No Additional Costs					
WWR5) Consider converting the curbside recycling collection program to a cart based system.	No Additional Costs					
4. Organics						
O1) Continue to develop and distribute educational materials related to organics management as programs are established and implemented.	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
O2) Consider developing a pilot yard debris collection and composting program to assess public interest and participation.	-	-	\$5,000	\$5,000	\$5,000	\$5,000
O3) Monitor the pilot food waste collection program for participation and customer satisfaction and consider expanding the program as appropriate.	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
O4) Consider developing a Christmas tree recycling pilot program to assess public interest and participation.	-	\$3,000	-	-	-	-
5. Solid Waste Collection						
SWC1) Encourage the use of curbside collection services when possible and ensure collection services are available to all residents.	No Additional Costs					
SWC2) The County should continue to enforce solid waste regulations and laws to encourage the proper collection and disposal of solid waste.	No Additional Costs					
SWC3) Cities should continue to enforce compliance with their respective codes for solid waste collection and disposal.	No Additional Costs					
SWC4) Education efforts should be undertaken by both Klickitat County and the franchised haulers to provide information to customers that describe collection and recycling services availability.	No Additional Costs					
6. Transfer Facilities						
TF1) Monitor population growth and tonnage and consider transfer facility expansion as necessary.	No Additional Costs					

Table ES-1. Six-Year Implementation Budget for Additional Costs

Recommendation	Additional Cost by Implementation Year ¹					
	2020	2021	2022	2023	2024	2025
TF2) Monitor waste importation tonnages and the current Agreement with Republic Services and consider intermodal facility expansion as needed.	No Additional Costs					
TF3) Annually review permits and the contract for compliance and potential transfer facility modifications or expansions.	No Additional Costs					
7. Waste Import/Export						
IE1) Importation of waste should continue in compliance with the Agreement.	No Additional Costs					
IE2) Continue to monitor compliance with the Agreement.	No Additional Costs					
IE3) Yakama Nation and Gorge Commission preferences regarding waste transportation through specific areas under their jurisdictions should be implemented through permit conditions and should be monitored for compliance.	No Additional Costs					
IE4) Exportation will not be considered during this planning period.	No Additional Costs					
8. Disposal						
D1) Waste should continue to be disposed per the Agreement.	No Additional Costs					
D2) Continue to maintain, monitor and update the Agreement.	No Additional Costs					
D3) Ensure continued compliance with permits by monitoring, including retention of an Inspector.	No Additional Costs					
9. Energy Recovery						
ER1) Monitor developments and progress in waste processing and conversion technologies utilized and support the continued use of landfill gas to energy operations.	No Additional Costs					
10. Moderate Risk Waste						
MRW1) Enhance the public education and outreach program for handling of MRW waste for households and businesses as a cooperative effort.	\$2,500	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
MRW2) Consider re-establishment of the used oil collection program at more transfer station and drop box sites.	No Additional Costs					

Table ES-1. Six-Year Implementation Budget for Additional Costs

Recommendation	Additional Cost by Implementation Year ¹					
	2020	2021	2022	2023	2024	2025
MRW3) Continue to coordinate the schedule and process for updating the MRW Plan with the solid waste management plan (as is the current practice).	No Additional Costs					
MRW4) If grant funding is reduced or eliminated, consider implementing a fee based program to accept business waste and setting aside a fraction of the “host fee” from the Agreement for the MRW program.	No Additional Costs					
MRW5) Update the MRW implementation plan, as appropriate, for review and approval by Klickitat County.	No Additional Costs					
11. Special Wastes						
SW1) Continue to dispose special wastes through a cooperative effort with Klickitat County, Republic Services and Ecology.	No Additional Costs					
SW2) Monitor federal and state guidance regarding pharmaceutical waste and implement changes as needed to comply with statewide medicine take-back program.	No Additional Costs					
SW3) Promote proper reuse, recycling and disposal of C&D debris.	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
SW4) Partner with private organizations to promote recycling and reuse of C&D wastes and building materials.	No Additional Costs					
SW5) Develop an internal plan for handling disaster debris, in coordination with the Klickitat County Emergency Management Department.	-	-	\$25,000	-	-	-
SW6) Consider adding an additional E-Waste collection site.	No Additional Cost					
12. Administration/Enforcement						
AE1) Consider pursuing some of the additional funding strategies listed in Table 12-2 that can be implemented by Klickitat County directly and independently from other alternatives.	No Additional Costs					
AE2) Provide adequate funding to maintain or increase staff at county levels, as needed.	No Additional Costs					
AE3) Include the SWAC in the review of new solid waste facility permit requests.	No Additional Costs					
TOTAL	\$5,500	\$7,000	\$34,000	\$9,000	\$9,000	\$9,000



Table ES-1. Six-Year Implementation Budget for Additional Costs

Recommendation	Additional Cost by Implementation Year ¹					
	2020	2021	2022	2023	2024	2025

Notes:

- 1. Monetary figures are approximate and subject to update.

1 Background

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

1.1 Purpose

Washington State law assigns primary responsibility for managing MSW and MRW to local governments. Revised Code of Washington (RCW) 70A.205 requires local government to maintain current solid waste management plans. RCW 70A.300 requires local government to develop plans for managing hazardous waste, which in this Plan is covered in Chapter 10 Moderate Risk Waste.

The purpose of this Plan is to develop recommended waste management strategies for the period years 2020 through 2026. The Plan also looks forward to ensure that sufficient processing and disposal options will be available for at least the next 20 years, or through year 2040.

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.

1.2 Goals and Objectives

The mission statement for this Plan is as follows:

The overall goal of Klickitat County and the participating jurisdictions is to 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:

- Provide convenient and reliable services for managing solid waste materials.
- Promote the use of innovative and economical waste handling methods.
- Emphasize waste reduction as a fundamental management strategy.
- Encourage recovery of marketable resources from solid waste.
- Encourage public/private partnerships for waste reduction and recycling programs.

- Maintain a solid waste management system and suitable agreements between Klickitat County, incorporated cities, franchise haulers, contract haulers, and other users of the solid waste facilities that result in minimizing tariffs on Klickitat County’s citizens.
- Evaluate, consider, and maintain the regional approach to solid waste management in Klickitat County to include waste from outside Klickitat County.
- Increase public awareness on solid waste issues and provide citizens with information and education to implement recommended waste management practices.
- Minimize the environmental impacts to climate, air, water and land that are associated with waste generation, transportation, handling, recycling and disposal.
- Comply with applicable federal, state and local regulations.
- Recognize and support local conditions associated with the management of solid waste and MRW.

1.3 Participants in the Planning Process

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

Table 1-1. Klickitat County Solid Waste Advisory Committee

Name	Affiliation/Title
Laura Mann	City of Bingen
Mike Cannon	City of Goldendale
Donna Rockwell	Citizen Representative Commissioner District #2
Steven Randall	School Representative
John Longfellow	Citizen Representative Commissioner District #3
Jason Hartmann	City of White Salmon Council Member
Joe Johnson	Landfill Compliance Officer
James Beeks	Citizen Representative At-Large / Agricultural Representative
David Kavanagh	Klickitat County Public Health Department
Pierce Louis	Agricultural Industry Representative / Business Representative
Greg Bringle	Waste Industry Representative
Kevin Barry	Citizen Representative-At_Large

1.4 Planning Area

The planning area includes the incorporated and unincorporated areas of Klickitat County. The incorporated areas include the cities and towns of Bingen, Goldendale, and White Salmon.

1.5 Planning Authority

This Plan is intended to satisfy the participating jurisdictions' responsibilities for maintaining a current solid waste management plan in accordance with RCW 70A.205, and to provide a local hazardous waste management plan in accordance with RCW 70A.300.

Cities and counties share the responsibility for developing and maintaining a local solid waste management plan. RCW 70A.205 provides cities with three alternatives for satisfying their planning responsibilities:

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

The incorporated communities of Bingen, Goldendale, and White Salmon executed interlocal agreements with Klickitat County regarding solid waste management. The agreements authorize Klickitat 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.

1.6 Plan Development Process

The Plan was developed over a period of approximately 15 months. The process began in June 2019 with the contract execution for HDR Engineering, Inc. (HDR), as the team that would assist with starting the update process. During the 15 months, technical research, analysis, and recommendations were prepared by HDR and Klickitat County staff and discussed with the Klickitat County Health Department (Health Department), the SWAC, stakeholders and interested members of the public. This 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 appointed 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 Klickitat County Solid Waste Department (SWD) in the development of programs and policies concerning solid waste handling and disposal.

The SWAC can review and comment, on rules, policies, resolutions, and ordinances. 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.

1.7 Status of Previous Plans

This Plan supersedes previous solid waste and MRW management plans including the *2013 Klickitat County Solid Waste Management Plan Update* (2013 Plan). Status of the 2013 Plan recommendations and previous Plan recommendations and planning history can be found in Appendix D.

1.8 Relationship to Other Plans

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

1.8.1 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.

1.8.2 Klickitat County Planning

RCW 36.70A.040 provides counties with planning requirements as required under the Growth Management Act. Klickitat County has chosen to "partially plan" under the Growth Management Act requirements and has adopted development regulations that designate and protect critical areas and designate natural resource lands. The Klickitat County Zoning Ordinance includes solid waste disposal as a conditional use in certain residential zones and in other zones, solid waste disposal, handling and processing are

considered to be an essential public utility facility and subject to conditional use approval by the Board of Adjustment. In addition, Klickitat County complies with the Shoreline Management Act through its Shoreline Management Plan that recommends that environmentally hazardous uses be prevented from locating within 200 feet of designated shoreline areas.

1.9 Required Plan Elements

This Plan is intended to meet or exceed applicable requirements set by Washington State. RCW 70A.205 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 6-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.

RCW 70A.300 establishes the required elements for local hazardous waste management plans identified below:

- A plan or program to manage MRW including an assessment of the quantities, types, generators, and fate of MRW in the jurisdiction;
- A plan or program to provide for ongoing public involvement and education including the potential hazards to human health and the environment resulting from improper use and disposal of the waste;
- An inventory of existing generators of hazardous waste and facilities managing hazardous waste within the jurisdiction;
- A description of the public involvement process used in developing the plan; and
- A description of the eligible zones designation in accordance with RCW 70A.300.225.

1.9.1 Regulatory Overview

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

1.9.2 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. On August 1, 2018, Ecology adopted a comprehensive amendment to WAC 173-350.

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. Klickitat County has issued an active permit to Republic Services, Inc. (RS) for operation of a Municipal Solid Waste Landfill 45 miles east of Goldendale near Roosevelt Washington. See Chapter 8 Disposal for additional information.

1.9.3 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 Washington State. In 1983, the State Legislature adopted a hierarchy of hazardous waste management methods in RCW 70A.300. 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 70A.300 in 1985 and 1986 defined MRW and required that local governments (counties) develop plans for the proper management of MRW. As stated in RCW 70A.300, 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 70A.205. 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.

1.9.4 Summary of Changes in Solid Waste Regulation and Policy Since 2013

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

1.9.5 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.

Refer to Chapter 10 Moderate Risk Waste for additional information.

1.9.6 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.

1.9.7 County Comprehensive Solid Waste Management Plan

RCW 70A.205 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.

1.9.8 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 11 Special Wastes for additional information regarding how these rules affect solid waste in Klickitat County.

1.9.9 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). Klickitat County will oversee the

establishment of the program, monitor on-going operations, manage enforcement when compliance issues arise, and evaluate program effectiveness.

1.9.10 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 on recycling market research and development. Ecology and Commerce will appoint an advisory board and enter into an interagency agreement. The Washington State Association of Counties will appoint two Solid Waste Managers to the advisory board. Ecology will 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.

1.9.11 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.

1.9.12 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.

1.9.13 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.

2 Waste Stream

This chapter provides information on population and waste generation rates. This data is used in various ways in the following chapters, such as assessing the need for or determining the impact of a proposed new program.

2.1 Waste Stream and Population Projections

This section presents information regarding past and present information and future projections regarding waste generated in Klickitat County.

2.1.1 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 Klickitat County population which is approximately two-thirds rural. 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 2018. For future population projections, the OFM actually 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. Population Estimates

Area	2010 ¹	2016 ¹	2018 ¹	2025 ²	2030 ²	2040 ²
Klickitat County, Total	20,318	21,270	21,980	21,882	22,189	21,930
Unincorporated Areas	13,975	14,660	15,210	15,098	15,310	15,131
Incorporated Areas	6,343	6,610	6,770	6,784	6,879	6,799
Cities:						
Bingen	712	735	735	746	757	748
Goldendale	3,407	3,435	3,530	3,528	3,577	3,535
White Salmon	2,224	2,440	2,505	2,510	2,545	2,516

Notes:

1. Data for these years are from the Office of Financial Management's "April 1, 2018 Population of Cities, Towns, and Counties, 2010-2018," <http://www.ofm.wa.gov/pop/april1/default.asp>. (OFM 2018).
2. Total population data for the years 2025 through 2040 is from the OFM's "Projections of the Total Resident Population for the Growth Management Act, Medium Series: 2010 to 2040 by 5-year intervals," <http://www.ofm.wa.gov/pop/gma/projections12/projections12.asp>. Population figures by area and city for the years 2025 through 2040 assume the same breakdown as 2018.

According to the OFM, April 2018 Population Changes and Rank Report, Klickitat County is the thirtieth most populated county in Washington State and incurred an 8.18 percent growth in population from April 2010 to April 2018.



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 Klickitat 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 Klickitat 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 2016 solid waste disposed of in Klickitat 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 Klickitat County as well as the amounts of C&D debris and other special wastes that have similarities to “normal” MSW and can be managed in a similar fashion with additional precautions or special handling procedures, disposed of in Klickitat County. 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.

Table 2-2. Current Waste Generation Rate (2016)

Facility and Waste Stream	Annual Amount
MSW Disposed Tonnage at Roosevelt Regional Landfill	20,727 Tons
Recycling Tonnages	4,262 Tons
Total	24,989 Tons
Materials to Other Landfills/Facilities	2,806 Tons
Additional Diverted Materials ¹	2,739 Tons
Grand Total, All Solid Waste	30,534 Tons
Population (2016 Estimate)	21,270 Persons
Waste Generation Rate, per person per year	2,871 Pounds
Waste Generation Rate, per person per day	7.87 Pounds

Notes: MSW and Recycling tonnages are 2016 figures from Ecology tonnage records.

1. One-time diversion of asphaltic materials from road construction deducted from Additional Diverted Materials total.

In Table 2-3, waste quantities have been projected using the most current (2016) available per capita generation rate multiplied by population forecasts for Klickitat County. The current generation rate was calculated by combining the tons disposed in 2016 with the tons recycled, or diverted, in 2016 and then dividing by the population in 2016. By applying the current per capita rate to future years, the projected figures for 2025 through 2040 assume no change in waste generation rate 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).

Table 2-3. Project Waste Quantities (2016)

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:						
2016	21,270	30,534	7.87	4,262 (14%)	2,739 (9%)	23,533 (77%)
Projected Amounts:						
2025	21,882	31,429	7.87	4,400	2,829	24,200
2030	22,189	31,870	7.87	4,462	2,868	24,540
2040	21,930	31,498	7.87	4,410	2,835	24,253

Notes:

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 2016 (7.87 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.

2.1.2 Recycling Data

The most recent recycling survey conducted by Ecology suggests that 15 percent of Klickitat County’s MSW was recycled or composted (see Table 2-4). This figure is generally called a *recycling* rate, although it sometimes includes composting and some reuse as well.

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 such as household hazardous waste. Including these other wastes equates to an overall diversion rate of 23 percent of the total tons generated.

Table 2-4. Recycled and Diverted Materials (2016)

Materials	Annual Tons	% of Total Tons of MSW Disposed	% of Total Tons Generated
Recycled			
Aluminum Cans	43.62	-	-
Cardboard	533.49	2.0	1.9
Electronics	5.86	-	-
Fluorescent Light Bulbs	.10	-	-
Grease, Other Rendering	100.07	0.5	0.3
High-Density Polyethylene (HDPE) Plastics	66.28	-	-
Low-Density Polyethylene Plastics	35.57	-	-



Materials	Annual Tons	% of Total Tons of MSW Disposed	% of Total Tons Generated
Metals/Appliances	710.97	3.0	2.8
Mixed Waste Paper	1,571.10	7.0	6.0
Other Plastics/Plastic Film	166.20	1.0	0.6
Tires	2.76	-	-
Tin Cans	93.95	0.5	0.3
Used Motor Oil	200.18	1.0	0.7
Vehicle Batteries	61.00	-	-
Wood Waste/Yard Debris	7.32	-	-
Glass	663.75	3.0	2.4
Tons Recycled/Composted	4,262.22	18.0	15.0
Tons MSW Disposed	23,533.00	-	-
Total Tons of MSW	27,795.22	-	-
Recycling Rate	15%	-	-
Diverted			
Concrete	171.00	0.7	0.5
Antifreeze	7.19	-	-
Batteries	2.18	-	-
Oil Filters	25.01	0.1	0.1
Used Oil	7.89	-	-
Organics-Agricultural/Other	2,514.85	10.8	8.3
Tires (Energy Recovery, Baled, and Reuse)	11.04	-	-
Other	.31	-	-
Tons Diverted	2,739.47	11.6	8.9
Tons Diverted or Recycled/Composted	7,001.69	29.7	22.9
Tons Disposed	23,533.00	-	-
Total Tons Generated	30,534.27	-	-
Overall Diversion Rate	23%	-	-

Notes: Data for recycled and diverted materials, and for the amount of “other wastes,” are from the 2016 annual survey conducted by Ecology.

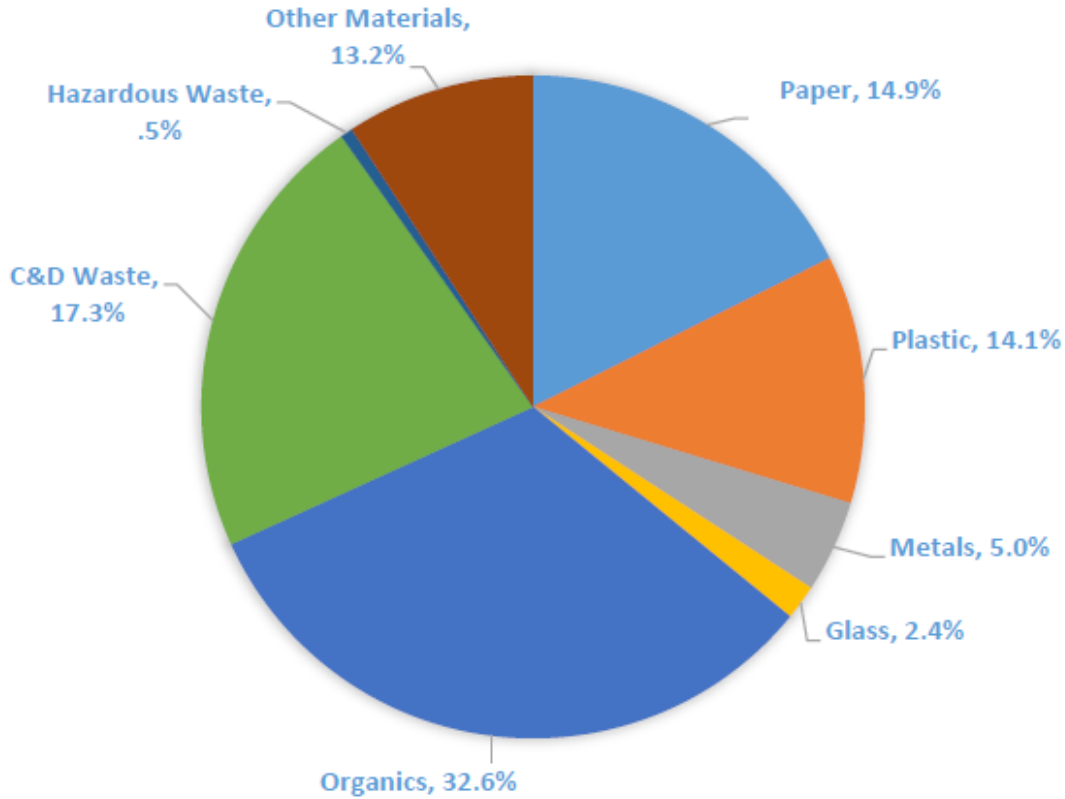
2.1.3 Composition of Disposed Municipal Solid Waste

Ecology commissioned Cascadia Consulting Group (Cascadia) to conduct a four-season MSW characterization study during 2015–2016. The study characterizes the disposed MSW stream in Washington State in support of the state Solid and Hazardous Waste Plan and incorporates a packaging versus product analysis, detailed composition results for six waste generation areas, and a supplementary analysis, which combines the statewide results with existing county waste composition studies.

Before any discussions of data collection began, Ecology first selected ten counties in which to collect and sort waste samples. These ten counties represent Washington’s six Waste Generation Areas (WGAs): Central, East, Northwest, Puget Sound, Southwest, and West. Klickitat County is in the Central WGA. The six WGAs combine similar regions and take into account the geographic, demographic, and economic variation found

throughout the state. Figure 2-1 presents an overview of the 2016 Central Washington Waste Composition Study by material type disposed and percentage of the waste stream.

Figure 2-1. 2016 Central Washington 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 Klickitat County by changing purchasing and disposal habits. Utilizing the compositional analysis derived for the Central WGA, Table 2-5 illustrates composition of the total measured Klickitat County waste stream.

Table 2-5. Waste Stream Composition (2016)

Materials	Waste Stream	
	Percent by Weight	Tons of Material
Paper	14.9	3,506
Cardboard	3.9	918
Newspaper	0.5	118
Other Recyclable Paper	6.4	1,506
Compostable Paper	3.5	824
Non-Recoverable Paper	0.6	140



Materials	Waste Stream	
	Percent by Weight	Tons of Material
Plastic	14.1	3,318
Polyethylene Terephthalate Bottles	2.5	588
HDPE Bottles	1.4	329
Other Recyclable Plastic	6.0	1,412
Recyclable Film	4.2	989
Glass	2.4	565
Clear Containers	1.1	259
Brown Containers	0.6	140
Green Containers	0.4	94
Non-Recyclable Glass	0.3	72
Metals	4.3	1,012
Aluminum Cans	0.5	118
Tin Cans	0.8	188
Other Ferrous	0.1	24
Other Non-Ferrous	2.0	470
Computers, Electronics	0.6	140
Non-Recyclable Metal	0.3	72
Organics	32.6	7,672
Food Waste	18.4	4,330
Yard Debris	10.9	2,565
Non-Recoverable Organics	3.3	777
Other Materials	13.8	3,248
Carpeting	1.4	329
Textiles	2.5	588
Mattresses	0.6	140
Tires, Rubber Products	1.0	235
Recoverable Hazardous / Special Wastes	0.5	118
Other Hazardous / Special Wastes	0.0	-
Other Non-Recoverable Materials	7.8	1,838
Construction Debris	17.9	4,212
Clean Wood	6.3	1,483
Recoverable C&D	7.0	1,647
Non-Recoverable C&D	4.6	1,082
Total Tons Disposed (in tons)		23,533

3 Waste Reduction, Recycling, and Education

This chapter discusses existing waste reduction, recycling and education programs, identifies relevant planning issues to meet local and state goals, and develops and evaluates alternative strategies for future implementation.

3.1 Background

This section describes applicable Washington State laws and rules regarding waste reduction and recycling programs.

3.1.1 State Legislation, Regulations, and Guidelines

Chapter 3 provides an update of Klickitat 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. Washington State's requirements are based on 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 70A.205 includes the following goals (among others) and requires that solid waste management plans demonstrate how these goals will be met:

- Washington State is to achieve a statewide recycling rate of 50 percent of the total tons of solid waste generated and recovered statewide. Ecology conducts waste composition studies and recycling surveys on an annual basis to track achievement of waste reduction and recycling goals.
- 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.

Other applicable state requirements are as follows:

- Programs for the collection of source separated materials from residences in urban and rural areas. In rural areas, these programs shall include, but not be limited to, drop-off boxes, buy-back centers, or a combination of both, at each solid waste transfer, processing, or disposal site, or at locations convenient to the residents. The drop-off boxes and buy-back centers may be owned or operated by public, nonprofit or private person.
- Programs to educate and promote concepts of waste reduction and recycling.
- Monitor the collection of source-separated waste from non-residential sources when there is sufficient density to economically sustain a commercial collection program. Planning guidelines can include criteria such as anticipated recovery rates and levels of public participations, availability of environmentally sound disposal capacity, access to markets for recyclable materials, unreasonable cost impacts on the ratepayer, utilization of environmentally sound waste reduction and recycling technologies and other factors as appropriate.

RCW 70A.205 requires that counties develop clear criteria for designating areas as urban or rural for the purpose of providing solid waste and recycling services. RCW 70A.205 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. According to the Washington State OFM, a “rural county” is defined as “...a county with a population density less than 100 persons per square mile”. Using this definition, Klickitat County is considered a rural county. According to the Washington State Department of Health, Small Town/Rural Areas are towns with populations below 10,000 and surrounding commuter areas with more than a one-hour driving distance to the closest city. Cities and Towns within Klickitat County are considered rural.

RCW 70A.205 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. Klickitat County achieves this by working cooperatively with Ecology and using the data Ecology collects through the annual Washington State Recycling Survey.

In addition, public education is an important element for solid waste management systems. Klickitat County residents and businesses need to be informed as to the proper and available methods for waste reduction, disposal and recycling. The programs described in this chapter encourage residents and businesses to take the extra steps to recycle or compost appropriate waste streams, or to avoid generating waste in the first place.

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. Based on Klickitat County population projections, it was not required to adopt a CROP during this plan implementation timeline. However, Klickitat County chose to proactively create their own CROP which can be found in Appendix K.

3.1.2 Local Regulations, and Guidelines

Klickitat County and RS have an Agreement in place for operations of Roosevelt Regional Landfill (RRL) and various other negotiated services. Additional information on the Agreement is located in Chapter 8 Disposal. As part of the Agreement, RS is obligated to implement and maintain a County-wide model rural recycling plan. See Appendix E for the Model Rural Recycling Program Plan.

The Model Rural Recycling Program Plan, which was implemented in 1999, identifies specific facilities, programs and support services that RS will provide within Klickitat County and how these facilities, programs and support services will be coordinated with the waste reduction and recycling efforts sponsored by Klickitat County to help make substantial progress towards achieving a reduced generation rate per person.

3.2 Existing Program Elements

This section provides background information regarding waste reduction, recycling and education and discusses Klickitat County’s existing programs.

3.2.1 Waste Reduction and Reuse

Waste reduction is the highest priority for solid waste management according to RCW 70A.205 and is preferred over recycling and composting because the social, environmental, and economic costs are typically lower for avoiding the creation of waste.

Onsite composting can reduce the amount of yard debris disposed of as garbage or composted commercially.

Other opportunities for reuse and waste reduction that are available in Klickitat County include yard sales, material donations and reuse, local government public surplus sales, upcycling and classified advertisements websites which may be used to buy and sell second-hand goods locally.

3.2.2 Public Education

Public education and outreach programs supporting waste reduction and reuse, recycling, and organics management activities are ongoing when grant funding is available. Klickitat County has several educational programs aimed at youth, the general public, and local businesses. Information about solid waste management is provided on the website <https://www.klickitatcounty.org/374/Solid-Waste>. Additional education efforts include the following:

- Klickitat County develops a yearly recycling newsletter which provides information on recycling and curbside pickup schedules, household hazardous waste acceptance, and used oil recycling opportunities.
- Media advertising, including radio and newspaper spots, are developed to share information about Klickitat County's solid waste management programs, special events and recycling and diversion opportunities.
- Klickitat County maintains an Instagram account, @ recycle_klickitatco, and a Facebook page, <https://www.facebook.com/KCRecycles/> to share information relating to programs, events and recycling and diversion opportunities.
- Klickitat County has a YouTube channel, <https://www.youtube.com/channel/UC2DB4ai46i3Zh57aHiEBjeA>, dedicated to waste reduction such as recycling and upcycling.
- Klickitat County develops promotional materials educating the public about waste reduction and keeping hazardous materials out of the waste stream.
- Klickitat County provides information on backyard composting and provides home composting bins to residents for a fee when grant funding is available.
- A food waste composting pilot project was established in 2019 with information available on participation, drop sites and acceptable materials. Additional information on this pilot program can be found in Chapter 4 Organics.

3.2.3 Residential Recycling

Currently, curbside residential recycling collection service is available through the established recycling program, free of charge. The recycling program is provided

through the Agreement with RS which requires recycling and countywide curbside collection at no cost to County residents. Currently, blue plastic bags are provided by RS for the program with participants placing a limited type, and amount, of commingled recyclables in the bags before setting the bags curbside for collection on specified collection days. Figure 3-1 presents a picture of recycling bags being distributed at BZ Corner Transfer Station. The bags are loaded into containers and hauled by train to the Republic Services Recycling Facility in Seattle for processing.

Figure 3-1. Blue Bags Distribution



In addition, each of the transfer stations, drop box sites, and the Bingen Point Recycling Drop Site have residential recycling opportunities available. Collection methods for residential recyclables may be subject to change during the planning period.

3.2.4 Commercial Recycling

Commercial-sector recycling is available, for a fee, through the private haulers in Klickitat County.

3.2.5 Public Event Recycling

RCW 70A.200.100 requires public event recycling in communities where there is an established curbside service and where recycling service is available to businesses. A recycling program must be provided at every official gathering and at every sports facility by the vendors who sell beverages in single-use aluminum, glass, or plastic bottles or cans. A recycling program includes provision of receptacles or reverse vending machines, and provisions to transport and recycle the collected materials. Facility managers or event coordinators may choose to work with vendors to coordinate the recycling program. The recycling receptacles or reverse vending machines must be clearly marked, and must be provided for the aluminum, glass, or plastic bottles or cans that contain the beverages sold by the vendor.

To support this requirement, Klickitat County is currently offering portable recycling containers specifically designed to collect beverage containers at public events which can be reserved through the Solid Waste Division. This program is a low-cost public service with high visibility that provides a positive benefit for those involved.

3.2.6 Incentives for Recycling

As previously discussed, Klickitat County provides recycling opportunities at the transfer station, drop box sites and through the residential curbside collection program of designated recyclable materials.

Recycling can enable residents and businesses to divert recyclable materials such as aluminum, plastics, mixed paper, and cardboard from the landfill.

3.2.7 Monitoring and Evaluation

Klickitat County gathers information from Ecology on recycled quantities and an estimate of its countywide recycling rate. Annual figures for recycled tonnages are reported on a voluntary basis by both public- and private-sector entities.

3.2.8 Recycling Processing Facilities

There are currently no recycling processing facilities located in Klickitat County. Recyclable materials are collected and transported to material recovery facilities within Washington State and other facilities located outside of the State.

3.2.9 Markets

Washington State regulations (RCW 70A.205) 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.

3.2.10 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 import 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 in a solid waste handling facility.

An important factor for marketing of recyclable materials collected in Klickitat County is the cost of transporting them to end-markets, some of which are outside of Washington State. Recyclers in eastern Washington are farther from most markets than recyclers along the Interstate 5 corridor, reducing market access and creating a transportation cost barrier. 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 3-1.

Table 3-1. Markets for Recyclables Materials

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 Newspaper	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 polyethylene terephthalate and high-density polyethylene 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 stable in 2018.
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.



Table 3-1. Markets for Recyclables Materials

Material	Primary Market(s)	Comments
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.

3.2.11 Designation of Recyclable Materials

Table 3-2 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 Klickitat County collect every designated material. Instead, the intent is that if materials become feasible for recycling, Klickitat 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 3-2. List of Designated Recyclable Materials

Priority Level	Material
<p>Routine Collection: Materials feasible to be collected by curbside collection and/or drop-off programs throughout Klickitat County.</p>	<ol style="list-style-type: none"> 1. Aluminum 2. Tin Cans 3. Cardboard 4. High Grade Paper 5. Mixed Paper 6. Newspaper 7. Plastics, #1 and #2 8. Milk/Juice Cartons



Table 3-2. List of Designated Recyclable Materials

Priority Level	Material
<p>Limited Collection: Materials that can be recycled but that have collection or marketing limitations in Klickitat County.</p>	<ol style="list-style-type: none"> 1. Electronics covered by E-Cycle Washington 2. Mercury-Containing Lights covered by LightRecycle Washington 3. Glass 4. Textiles 5. Ferrous Metals 6. Non-Ferrous Metals 7. Vehicle Batteries 8. Yard Waste/Food Waste 9. Wood Waste 10. Cell Phones 11. Ink Cartridges 12. Motor Oil 13. Antifreeze
<p>Potentially Recyclable: Hard to recycle materials that could be recycled if markets are available.</p>	<ol style="list-style-type: none"> 1. Latex Paint 2. Plastics, #3 through #7 3. Plastic Containers (Non-Bottle) 4. Plastic Film 5. Poly-Coated Paper 6. Food Waste (Compostable) 7. Extruded polystyrene foam

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

- Legislative mandate.
- The potential for increased amounts of diversion.
- 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 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.
- Other conditions not anticipated at this time.

Proposed changes to the list of designated materials should be submitted to the Board of Commissioners for review through the Solid Waste Department before adoption. These can be adopted without formally amending the Plan. If a major change is required to the list of designated materials then Ecology should be notified prior to the initiation of that change and may require an amendment process.

3.3 Status of Previous Recommendations

Status of the recommendations made by the 2013 Plan can be found in Appendix D.

3.4 Alternatives and Evaluations

Existing service gaps and other issues connected to the Waste Reduction, Recycling and Education component of solid waste management are discussed below.

3.4.1 Recycling Rates by Material

Overall, Klickitat County's waste diversion rate is estimated to be 23 percent. In 2016, a total of 7,002 tons was reported as recycled, composted, or otherwise diverted. Refer to Chapter 2 Waste Stream for data sources and detailed information. Recovery rates in Klickitat County appear to be highest for mixed waste paper, cardboard, metals, glass, and organics. However, organics are not well calculated due to backyard composting.

3.4.2 Model Rural Recycling Program Plan

The Model Rural Recycling Program Plan was adopted in 1999 between Klickitat County and RS and has not been amended since adoption. The original Model Rural Recycling Program's objective was to make substantial progress towards achievement of a 50 percent waste reduction and recycling rate and to coordinate activities as they relate to programs and participation levels.

Updating the Model Rural Recycling Program Plan to include relevant practices, activities, reporting requirements and program evaluation benchmarks should be accomplished during this planning period.

3.4.3 Service Equity and Cost

As Klickitat County establishes recycling goals and service levels for the next five to seven years, questions of equity and cost arise when considering what type of service to provide in the incorporated and unincorporated areas of Klickitat County. Issues to consider included the following:

- Addressing how to provide equity between residents in terms of opportunities for and convenience of recycling.
- Providing rural residents with adequate service.
- Planning for whether these service levels will need to be adjusted in the future.

3.4.4 Sham Recycling

Some facilities may claim they are recycling materials without actually doing so. Others haul mixed loads 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 (Chapter 173-345 WAC) 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 Klickitat County.

3.4.5 Modifying Curbside Collection to Carts

Klickitat County and RS should consider modifying the current bag recycling collection system to a cart system. Collecting and processing recyclables in blue plastic bags can be time consuming to remove recyclables from the bags, with the current bags not having an end-market and requiring shipment back to the RRL for disposal. Converting to a cart based system would eliminate the additional processing time required, shipment of the non-recyclable blue bags back to RRL for disposal and would provide participants with a larger recycling container for placement of recyclable materials.

3.4.6 Establish Specific Waste Diversion Goals

Klickitat County and signatory cities could set specific performance targets for waste reduction, recycling, and composting programs. Setting specific diversion goals for various waste streams, such as recyclables and organics, provides a benchmark for measuring future performance.

3.4.7 Expand the Public Education Program

Klickitat County and RS, should continue to take the lead in establishing, expanding, and incorporating public education and promotion of waste management programs to inform residents and businesses regarding opportunities and program available when managing waste. Efforts to inform residents and businesses about recycling and waste reduction options should be conducted on an ongoing basis and coordinated with the participating municipalities, schools, businesses, and waste collection companies.

3.4.8 Provide Support for Recycling at Public Events

Washington State law requires public events to provide recycling containers in communities where there is an established curbside service and where recycling service is available to businesses (RCW 70A.200.100). To support this requirement, Klickitat County is currently offering portable recycling containers specifically designed to collect beverage containers at public 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 Klickitat County to support and increase promotion of this program.

3.4.9 CROP

Klickitat County has chosen to complete a CROP which is included in Appendix K. The CROP will be implemented and maintained as outlined in the six-year implementation schedule.

3.5 Recommended Actions

The following recommendations are made for waste reduction, recycling, and education programs by Klickitat County:

- WWR1) Maintain the updated list of designated materials (Table 3-2) through periodic reviews and updates.



- WWR2) Update the Model Rural Recycling Program Plan.
- WWR3) Incorporate and expand the education and promotion program.
- WWR4) Continue to provide support for recycling at public events.
- WWR5) Consider converting the current curbside recycling collection program to a cart based system.

4 Organics

This chapter discusses existing programs, identifies relevant planning issues, and develops/evaluates alternative strategies for organic materials, including yard debris and food waste.

4.1 Background

This Chapter and Chapter 3 – Waste Reduction, Recycling, and Education provide an update of waste diversion methods that comply with state requirements regarding waste diversion programs.

4.1.1 State Legislation and Regulations

Beginning in 1989, the Waste Not Washington Act (ESHB 1671) declared that waste reduction and recycling must become a fundamental strategy of solid waste management. To that end, RCW 70A.205 includes a statement encouraging yard debris to be eliminated from landfills by 2012 in those areas where alternatives exist.

RCW 70A.205 also 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.

4.1.2 Washington State Department of Agriculture Regulations

In 2016, the WSDA amended WAC 16-470 Quarantine – Agricultural Pests as follows:

1. Adding MSW, yard debris, organic feedstocks, organic materials, and agricultural wastes to the list of commodities regulated under the apple maggot quarantine;
2. 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
3. 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.

Klickitat County is designated as a quarantined area by the WSDA and so can accept solid waste from quarantined and non-quarantined areas.

4.2 Existing Program Elements

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

4.2.1 Yard Debris Collection Program

Prior to 2005, Klickitat County operated a yard debris chipping service where residents could drop off brush and similar materials at no charge. Due to volumes of material and

lack of funding, the yard debris chipping service was cancelled. Currently, yard debris collection programs are offered during different times of the year, with the City of Bingen currently offering collection in April and November.

4.2.2 Food Waste

In 2019, Klickitat County established a food waste collection pilot program in Goldendale with plans to roll out the program countywide. The program is free to residents. Food waste is collected at designated drop sites that are available seven days per week to participants. Food waste collected is composted at the Dirt Hugger composting facility in Dallesport for a fee. Section 4.2.4 provides additional information on the Dirt Hugger facility.

4.2.3 Home Composting

Klickitat County offers home composting bins to residents for a small fee. In addition, a comprehensive website, <https://www.klickitatcounty.org/455/Compost-Organics>, is maintained with information on composting techniques, worm composting, livestock manure composting, and a composting calculator.

4.2.4 Dirt Hugger

The Dirt Hugger composting facility is located at 111 East Rockland Road, Dallesport, Washington, 98617, and is open Monday through Friday 8 a.m. to 4 p.m. The facility began operations in 2015 and sells for various fees both retail and wholesale products offering compost, soil blends, potting mixes, and landscape barks.

4.3 Status of Previous Recommendations

Status of recommendations made by the 2013 Plan are presented in Appendix D.

4.4 Alternatives and Evaluations

This section describes alternatives considered for implementation by Klickitat County.

4.4.1 Organics Education

Klickitat County has a home composting education program available on its website. As additional programs grow, such as the pilot food waste composting program, educational materials outlining the benefits of the programs could be developed and distributed.

4.4.2 Yard Debris Collection

With the discontinuation of the yard debris chipping program in 2005, yard debris is either disposed in RRL, taken to Dirt Hugger, or burned. Klickitat County could establish a pilot yard debris collection and composting program through source separation of the materials through either a curbside collection program or segregation at the transfer station and drop box sites.

4.4.3 Food Waste

Klickitat County and participating municipalities could evaluate the potential of increasing food waste collection programs based on response to the pilot food waste collection

program. Klickitat County should monitor the current pilot program in Goldendale, and if successful, consider expanding the program to service more customers in the other cities and unincorporated areas.

4.4.4 Christmas Tree Collection Program

Klickitat County could consider developing a Christmas tree collection program for collection and composting of trees following the holiday season. Klickitat County could work cooperatively with RS and Dirt Hugger to develop a pilot program and conduct a survey to assess public participation and interest.

4.5 Recommended Actions

The following recommendations for Klickitat County are made for organics:

- O1) Continue to develop and distribute educational materials related to organics management as programs are established and implemented.
- O2) Consider developing a pilot yard debris collection and composting program to assess public interest and participation.
- O3) Monitor the pilot food waste collection program for participation and customer satisfaction and consider expanding the program as appropriate.
- O4) Consider developing a Christmas tree recycling pilot program to assess public interest and participation.



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5 Solid Waste Collection

This chapter discusses existing MSW collection services in Klickitat County and the participating cities and towns, identifies relevant planning issues, and develops and evaluates alternative collection strategies.

5.1 Background

This section provides information regarding existing programs.

5.1.1 Legal Authority

Ecology, WUTC, Klickitat County, cities and towns, share the legal authority for solid waste collection within Klickitat County. RCW 70A.205 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 70A.205).

For information regarding establishment of collection and disposal districts as allowed by RCW 36.58A, refer to Chapter 12 Administration and Enforcement. Refer to Chapter 11 Special Wastes – Section 11.8 Construction and Demolition Debris for information on the "Sham Recycling Bill" and the Recyclable Materials Transporter and Facility Requirements (WAC 173-345).

5.1.2 Incorporated Areas

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

1. Municipal collection: Collect waste using municipal employees.
2. Contract collection: The municipality conducts a competitive procurement process and selects a private company to provide collection services.
3. 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. Cities within Klickitat County are utilizing the permitted solid waste carrier's alternative.

5.1.3 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 70A.205 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 are two collection companies with authority to operate in Klickitat County, RS Certificate G-12 as issued to Rabanco Ltd, doing business as (dba) Republic Services of Klickitat County, and Columbia River Disposal (CRD) Certificate G-51 as issued to Waste Connections dba Columbia River Disposal, Inc. The service area map is included as Appendix F.

5.2 Existing Conditions

Residential curbside waste collection is mandatory in the City of White Salmon and not mandatory in all other areas of Klickitat County. In Bingen and the unincorporated areas around Lyle and Dallesport, residential waste collection service can be provided by either RS or CRD. Other areas in Klickitat County are serviced by RS.

In both incorporated and unincorporated Klickitat County, the franchised haulers collect the MSW in trucks and deliver it to either the closest transfer station (Dallesport or Goldendale) or RRL for final disposal. More detailed information about the haulers' service areas can be found at the WUTC's website:

<http://www.utc.wa.gov/regulatedIndustries/transportation/solidWaste/Pages/default.aspx>.

5.2.1 Waste Collection Programs

Table 5-1 lists the style of residential garbage collection and the rates per household per month in Klickitat County.

Table 5-1. Solid Waste Collection Data

City or Town	Population ¹ 2018	Residential Garbage Cart Size	Collection Entity	Mandatory Service	Rate per Household per Month
Bingen	735	35 gallon	CRD RS	No	\$15.87 \$13.31
Goldendale	3,407	35 gallon	RS	No	\$13.31
White Salmon	2,224	35 gallon	RS	Yes	\$13.31
Unincorporated Area ²	13,975	35 gallon	CRD RS	No	\$15.87 \$13.31

Notes:

1. Population information from Table 2-1. Data current as of July 2019.

2. In the unincorporated area around Bingen, Lyle and Dallesport, service can be provided by either CRD or RS.

The private haulers that currently hold the rights to operate in Klickitat County are:

- RS. RS is located at 925 Fairgrounds Road, Goldendale, Washington, 98620, and can be contacted at (509) 773-5825.
- CRD. CRD is located at 41 Carson Frontage Road, Carson, Washington, 98610, and can be contacted at (509) 493-3930.

Current information on the service area for these companies can be found on the WUTC web page and in Appendix F.

Curbside recycling is offered within Klickitat County and the participating municipalities through RS. Additional information on curbside recycling can be found in Chapter 3 Waste Reduction, Recycling, and Education.

5.2.2 Bulky Waste Collection Service

Bulky waste collection is available countywide through both RS and CRD.

5.2.3 Commercial Collection Service

Similar to residential garbage collection, commercial garbage collection is non-mandatory in most jurisdictions and the unincorporated areas of Klickitat County. Style and frequency of service as well as rates charged vary by commercial customer.

5.2.4 Disposition of Collected Waste

Waste collected within Klickitat County is delivered to RRL for final disposal.

5.3 Status of Previous Recommendations

Status of recommendations made by the 2013 Plan are presented in Appendix D.

5.4 Alternatives

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

5.4.1 Alternatives

SOLID WASTE COLLECTION

Curbside garbage collection appears to be operating satisfactorily. Because of the rural nature of Klickitat County and the high level of self-hauling of waste to the transfer stations, the potential exists for nuisances resulting from illegal garbage disposal and contributes to roadside litter from unsecured loads. Rural residents should be encouraged to use regular garbage collection service, when practical, and Klickitat County should continue to enforce the appropriate solid waste regulations and laws to ensure proper disposal of solid waste.

CURBSIDE RECYCLING

There are currently curbside recycling services offered in Klickitat County and the participating municipalities. The relationship of collection and recycling is addressed in



greater detail in Chapter 3 Waste Reduction and Recycling. Chapter 3 Waste Reduction and Recycling includes certain collection system alternatives to be considered in order to promote recycling.

5.5 Recommended Actions

The following recommendations are made for solid waste collection programs by Klickitat County:

- SWC1) Encourage the use of curbside collection services when possible and ensure collection services are available to all residents.
- SWC2) The County should continue to enforce solid waste regulations and laws to encourage the proper collection and disposal of solid waste.
- SWC3) Cities should continue to enforce compliance with their respective codes for solid waste collection and disposal.
- SWC4) Education efforts should continue to be undertaken by both Klickitat County and the franchised haulers to provide information to customers that describe collection and recycling services availability.

6 Transfer Facilities

This chapter discusses existing transfer facilities and programs, identifies relevant planning issues, and develops alternative strategies for transfer of solid waste for disposal.

6.1 Background

In 1989, Klickitat County contracted with Regional Landfill Company to provide transfer station and drop box services. The contract was amended and restated in 2002 due to the acquisition of Regional Landfill Company by Allied Waste Industries, Inc. In 2008, Allied Waste Industries, Inc. was purchased by RS who now owns and operates transfer stations, drops box facilities, and the intermodal facility.

The transfer system in Klickitat County includes two transfer station facilities, two drop box facilities and one intermodal facility: the Dallesport Transfer Station, the Goldendale Transfer Station, the BZ Corners Drop Box, the Roosevelt Drop Box, and the RS Intermodal Facility. Both transfer stations serve commercial and self-haul waste, the two drop box facilities serve self-haul waste and the intermodal facility serves to transfer containers imported from outside of Klickitat County for transfer to final disposal.

Republic Services, under the contract agreement, does not assess a disposal fee for in-County waste received at the disposal site, transfer stations or drop boxes. The fee assessed at each site covers the haul of waste to the landfill only. A disposal fee is allowed for waste from any business or entity disposing of more than 1,000 tons per year, in-County waste from construction and demolition sites, out-of-County waste, or in-County problem wastes.

6.1.1 State Legislation, Regulations, and Guidelines for Waste Transfer

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

6.2 Existing Conditions

The following sections provide information on the existing transfer stations, drop boxes and the intermodal facility operated by RS and acceptable wastes at each facility. Figure 6-1 on the following page presents a map of the existing waste transfer, disposal and recycling facilities.

6.2.1 Dallesport Transfer Station

The Dallesport Transfer Station, located at 126 Tidyman Road, Dallesport, Washington, 98617, became operational in the early 1990s and services the south-central portion of Klickitat County including the unincorporated areas around Dallesport, rural industry and residents, and the certified haulers. RS operates the facility and is responsible for daily operations, including daily receipts and reports, site maintenance, loading of trailers, transport to the disposal site and insuring an adequate number of extra containers are available on site.

Figure 6-1. Klickitat County Solid Waste Facilities



Legend

-  Public Existing Transfer Station (owned by Klickitat County)
 - 1 Bingen Recycling Center
-  Private Existing Landfill/Transfer Station
 - 1 BZ Corners Transfer Station
 - 2 Dallesport Transfer Station
 - 3 Goldendale Transfer Station
 - 4 Roosevelt Regional Landfill
-  Closed/Abandoned Disposal Sites
 - 1 Horsethief Landfill
-  Private Compost Centers
 - 1 Dirt Huggers

October 2019

Figure 6-1



Klickitat County Solid Waste Facilities

Klickitat County Comprehensive Solid Waste Management Plan

This station accepts MSW and C&D wastes as well as asbestos containing materials with prior notice. The Dallesport Transfer Station also provides for recycling, HHW collection, scrap metal recycling, and bulky appliance drop off.

Regular hours of operation at the Dallesport Transfer Station are Tuesday through Saturday, 9 a.m. to 5 p.m. The current rate for disposal of regular solid waste is \$5.18 per yard for Klickitat County residents with a gate fee of \$1.82. The out of County disposal fee for the first cubic yard is \$30 plus the gate fee, and \$20 for each additional cubic yard. The out of County fees are scheduled to increase at the beginning of 2021 to \$35 plus the gate fee for the first cubic yard, and \$25 for each additional cubic yard.

The Dallesport Transfer Station tip floor can accommodate 2-3 vehicles for disposal at one time depending on size of vehicles. Figure 6-2 shows a photo of the Dallesport Transfer Station tip floor.

Figure 6-2. Dallesport Transfer Station



6.2.2 Goldendale Transfer Station

The Goldendale Transfer Station, located at 1205 W. Broadway, Goldendale, Washington, 98620, services the city of Goldendale, rural residents, and the certified hauler. The facility was rebuilt in 2016. Republic Services owns and operates the facility and is responsible for day-to-day operations, including daily receipts and reports, site maintenance, loading of containers, transport to RRL and ensuring an adequate number of extra containers are available on site. This station accepts MSW and C&D wastes as

well as asbestos containing materials with prior notice. The Goldendale Transfer Station also provides for recycling, HHW collection, waste oil recycling, electronics recycling, scrap metal recycling and bulky appliance drop off.

Regular hours of operation at the Goldendale Transfer Station are Tuesday through Saturday, 9 a.m. to 5 p.m. The current rate for disposal of regular solid waste is \$5.18 per yard for Klickitat County residents with a gate fee of \$1.82. The out of County disposal fee for the first cubic yard is \$30 plus the gate fee, and \$20 for each additional cubic yard. The out of County fees are scheduled to increase at the beginning of 2021 to \$35 plus the gate fee for the first cubic yard, and \$25 for each additional cubic yard. The Goldendale Transfer Station tip floor can accommodate 2 to 3 vehicles for disposal at one time depending on size of vehicles. Figure 6-3 shows a photo of the Goldendale Transfer Station tip floor.

Figure 6-3. Goldendale Transfer Station



6.2.3 BZ Corners Drop Box

The BZ Corners Drop Box, located at 5 Fir Tree Road, Husum, Washington, 98623, opened in the 1990s to service the western area of Klickitat County and rural residents. RS owns and operates the facility and is responsible for daily operations, including daily receipts and reports, site maintenance, loading of containers, transport to the disposal site and insuring an adequate number of extra containers are available on site. This station accepts all solid waste and C&D wastes as well as asbestos containing materials with prior notice. The BZ Corners Drop Box also provides for recycling, waste oil collection, HHW collection, scrap metal recycling and bulky appliance recycling.

Regular hours of operation at the BZ Corners Drop Box are Tuesday through Saturday, 9 a.m. to 5 p.m. The current rate for disposal of regular solid waste is \$5.18 per yard for Klickitat County residents with a gate fee of \$1.82. The out of County disposal fee for the

first cubic yard is \$30 plus the gate fee, and \$20 for each additional cubic yard. The out of County fees are scheduled to increase at the beginning of 2021 to \$35 plus the gate fee for the first cubic yard, and \$25 for each additional cubic yard.

The BZ Corners Drop Box disposal area can accommodate 2 to 3 vehicles for disposal at one time depending on size of vehicles. Figure 6-4 shows a photo of the BZ Corners disposal area.

Figure 6-4. BZ Corners Dropbox



6.2.4 Roosevelt Drop Box

The Roosevelt Drop Box, located at 500 Roosevelt Grade Road, Roosevelt, Washington, 99356, opened in the 1990s to service the eastern area of Klickitat County. RS owns and operates the facility and is responsible for daily operations, including daily receipts and reports, site maintenance, loading of containers, transport to the disposal site and insuring an adequate number of extra containers are available on site. This station accepts MSW and C&D wastes as well as asbestos containing materials with prior notice. The Roosevelt Drop Box also provides for recycling, HHW collection, scrap metal recycling, and bulky appliance recycling.

Regular hours of operation at the Roosevelt Drop Box are Monday through Saturday, 7 a.m. to 3 p.m. The current rate for disposal of regular solid waste is free for Klickitat County residents. Additional fees are assessed for in county businesses exceeding 1,000 tons per year and for out of county solid waste.

The Roosevelt Drop Box unloading area can accommodate 2 to 3 vehicles for disposal at one time depending on size of vehicles.

6.2.5 Republic Services Intermodal Facility

RS operates an intermodal facility for the RRL that transfers waste imported by rail in containers from locations outside of Klickitat County. The containers are then transferred

to truck and hauled to the landfill, approximately 5 miles north, for disposal. Empty containers are returned, by truck, to the intermodal facility and reloaded onto railcars. The operating hours for the intermodal facility occur between 6 a.m. and 11 p.m. or as determined by the operating permit. If additional hours of operation are required, Klickitat County is notified.

6.2.6 Waste Disposal Statistics

As population growth occurs in the cities and Klickitat County unincorporated areas, the total tonnage of solid waste also increases. Table 6-1 summarizes quantities of solid waste received at each of the transfer station and drop box sites over the past 3 years. The Roosevelt Drop Box Site tonnage is included in RRL tonnage received and cannot be separate out by site. Solid waste quantities have shown a modest increase since 2016 at the Dallesport Transfer Station and the Goldendale Transfer Station and a modest decrease at the BZ Corners Drop Box site.

Table 6-1. Solid Waste Received at Transfer Facilities

Year	Waste Received ¹		
	Dallesport Transfer Station (cubic yards)	Goldendale Transfer Station (approximate cubic yards) ²	BZ Corners Drop Box (cubic yards)
2016	11,930	39,138	22,750
2017	13,927	41,262	21,123
2018	13,536	47,803	19,295

Notes:

¹ Data is from information reported to Ecology from RS.

² Data for Goldendale Transfer Station was reported to Ecology in tons. Weight was converted to cubic yards using a conversion of 0.1625 tons per cubic yard.

6.3 Status of Previous Recommendations

Status of recommendations made by the 2013 Plan are presented in Appendix D.

6.4 Alternatives and Evaluations

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

6.4.1 Transfer Facilities

The current transfer system, which is owned and operated by RS under contractual agreement with Klickitat County, appears to be operating satisfactorily. The permits for transfer facilities should be reviewed annually for compliance and potential system modifications.

As growth occurs, Klickitat County should analyze population and tonnage projections and consider the need for the expansion of transfer facilities or the constructions of new facilities to accommodate the needs of the citizens.

6.4.2 Intermodal Facilities

The Intermodal Facility is operated as part of the Agreement between Klickitat County and RS. As tonnages to the landfill increase, the transport facilities should be assessed for potential options such as expansion and new facilities should be considered such as a barge unloading facility. The Intermodal Facility is a necessary element to the importation of waste and is permitted and contracted for under the terms of the Agreement between Republic Services and Klickitat County. The contract, in regards to the intermodal facility, should be reviewed annually for contract compliance and potential modifications or expansion.

6.5 Recommended Actions

The following recommendations are made for transfer station facilities by Klickitat County:

- TF1) Monitor population growth and tonnage and consider transfer facility expansions as necessary.
- TF2) Monitor waste importation tonnages and the current Agreement with Republic Services and consider intermodal facility expansion as needed.
- TF3) Annually review permits, and the contract, for compliance and potential transfer facility modifications or expansions.



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7 Waste Import and Export

This chapter discusses existing waste import and export opportunities, identifies relevant planning issues, and develops alternative strategies for MSW import and export.

7.1 Background

MSW has been historically imported into Klickitat County since the early 1970s. Horsethief Landfill, a Klickitat County owned and operated landfill, depended on revenues produced from imported wastes.

In 1990, Republic Services under an Agreement with Klickitat County, noted its intent to import waste from other jurisdictions and operate RRL as a regional facility. Additional information regarding the Agreement between Klickitat County and Republic Services can be found in Chapter 8 Disposal.

Waste quantities, for years 2016, 2017 and 2018, imported to RRL for disposal are shown in Table 7-1.

7.2 Existing Conditions

This section describes current solid waste import and export conditions.

7.2.1 Waste Import

The Agreement with RS obligated Klickitat County to the importation of waste until 2032. The Agreement contains a clause that allows up to three extensions (of 5 years each), which could extend the Agreement until 2047. Klickitat County's goal, regarding waste importation, is to maintain and expand the present flow of waste to RRL in conformance with the Agreement and permits.

The Agreement has an annual waste importation limit of five million tons and other restrictions. Options under the Agreement for waste importation include no change, reduction of the annual tonnage limit, and increasing the annual tonnage limit. Table 7-1 identifies waste, by jurisdiction, imported into Klickitat County for disposal at RRL.

Prior to waste importation approval, the Agreement requires the following of exporting municipalities:

- Have an approved solid waste management plan that address exporting and includes recycling and waste reduction elements;
- Have an approved MRW plan; and
- Klickitat County be allowed to review and approve these plans for conformance.



Table 7-1. Waste Imported into Roosevelt Regional Landfill

Waste Import Origin ¹	MSW (tons)	Other ² (tons)	Total (tons)
Washington State Tonnage			
Adams County	-	812	812
Benton County	-	1,176	1,176
Chelan County	-	116	116
Clallam County	15,370	324	15,694
Cowlitz County	182	11,152	11,334
Ferry County	2,475	-	2,475
Franklin County	-	1,558	1,558
Grant County	-	1,098	1,098
Grays Harbor County	27	929	956
Island County	52,520	1,933	54,453
Jefferson County	20,700	11,943	32,643
King County	-	581,075	581,075
Kitsap County	-	7,935	7,935
Kittitas County	-	10	10
Klickitat County	25,495	2,348	27,843
Lewis County	6,598	11,441	18,039
Lincoln County	3,072	-	3,072
Mason County	37,866	180	38,046
Pacific County	-	160	160
Pend Oreille County	7,745	-	7,745
Pierce County	-	18,809	18,809
San Juan County	5,022	285	5,307
Skagit County	113,413	14,986	128,399
Snohomish County	526,098	46,739	572,837
Spokane County	36,433	70,197	106,630
Thurston County	196,421	2,882	199,303
Whatcom County	49,276	14,359	63,635
Whitman County	29,821	1,113	30,934
Yakima County	-	4,709	4,709
Washington State	-	11	11



Waste Import Origin ¹	MSW (tons)	Other ² (tons)	Total (tons)
Out of State / Out of Country Tonnage			
Out of State – Idaho	123	848	971
Out of State - Montana	18	-	18
Out of State - Alaska	22,759	7,318	30,077
Out of State - California	-	284	284
Out of State - Oregon	-	2,471	2,471
Out of State - Guam	-	82	82
Out of Country – Marshall	-	18	18
Out of Country – British Columbia	281,697	150,408	432,105
Total Waste Imported	1,433,131	969,709	2,402,840

Notes:

1. Information provided by Republic Services.

2. Includes waste imported, including MSW, ash, contaminated soils and other.

Klickitat County’s location lends itself to the importation of waste from regional population centers as the area is served by transportation corridors including State Route (SR) 14, SR 97, Burlington Northern Santa Fe Railway, and Columbia River. These transportation corridors connect Klickitat County to Washington State population centers as well as areas outside of the region.

Long-distance transportation may raise concerns about impacts to areas that lie on or adjacent to the routes utilized to move waste. Klickitat County has placed conditions on RRL’s conditional use permit (CUP) in response to concerns expressed regarding transportation impacts. The current CUP for RRL (Klickitat County CUP2006-01) restricts truck traffic through the Yakama Nation Reservation and through the Columbia River Gorge National Scenic Area.

Additional information on the Agreement between Klickitat County and RS can be found in Chapter 8 Disposal.

7.2.2 Waste Export

Biomedical and pathological wastes are typically generated by hospitals, medical clinics, dental offices, and nursing homes and are regulated under RCW 70A.205. Refer to Chapter 11 Special Wastes for detailed information regarding medical waste.

Export of Klickitat County MSW is not applicable.

7.3 Status of Previous Recommendations

Status of recommendations made by the 2013 Plan are presented in Appendix D.

7.4 Alternatives and Evaluations

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

7.4.1 Waste Import

Importation of waste into RRL appears to be currently operating in compliance with the Agreement between Klickitat County and RS. In order to maintain compliance with the Agreement in regards to importation of waste, Klickitat County will need to monitor compliance with the Agreement including review and approval of importing municipalities' solid waste and MRW management plans.

The Yakama Nation and the Gorge Commissions' preferences for trucking of waste should be honored where the location of the exporting jurisdiction allows reasonable alternatives.

7.4.2 Waste Export

The current options available for export of biomedical and pathological wastes appear to be adequately managing disposal of these waste streams. Additional materials are addressed in Chapter 11 Special Wastes for waste export and disposal options. MSW export is not considered as a viable option at this time.

7.5 Recommended Actions

The following recommendations are made for waste import and export.

- IE1) Importation of waste should continue in compliance with the Agreement.
- IE2) Continue to monitor compliance with the Agreement
- IE3) Yakama Nation and Gorge Commission preferences regarding waste transportation through specific areas under their jurisdictions should be implemented through permit conditions and should continue to be monitored for compliance.
- IE4) Exportation will not be considered during this planning period.

8 Disposal

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

8.1 Background

This section provides information on Klickitat County's waste disposal system,

8.1.1 State Legislation, Regulations, and Guidelines for Disposal

Klickitat County's waste disposal system is regulated by RCW 70A.205 Solid Waste Management, Chapter 173-350 WAC Solid Waste Handling Standards, and Chapter 173-351 WAC Criteria for Municipal Solid Waste Landfills.

8.1.2 Roosevelt Regional Landfill Agreement

Since 1977, Klickitat County has pursued regionalization of disposal facilities in order to reduce tipping fees and rates for local citizens. On August 30, 1988, the SWAC recommended Klickitat County issue a Request for Qualifications and Proposals (RFQ/P) for the private development of a landfill. Klickitat County authorized the RFQ/P and issued its Notice to Contractors on October 3, 1988. The Notice to Contractors called for proposals and negotiations concerning a possible full-service contract with a contractor for the permitting, design, construction and operation of a state-of-the-art landfill to be sited within Klickitat County.

Responses to the RFQ/P were received on January 23, 1989, from Burlington Environmental, Inc. (BEI), Rabanco Regional Landfill Company (RRLC), and Washington Waste Systems, Inc. Klickitat County reviewed these proposals, and on February 13, 1989, decided to further consider proposals of BEI and RRLC. Klickitat County conducted interviews of BEI and RRLC, as required by law.

Klickitat County received and considered recommendations from its Public Works and Planning Departments as well as from R.W. Beck and Associates, Klickitat County's consulting firm. On March 16, 1989, after review and consideration of the two finalist, RRLC was selected as "first vendor" and moved forward on contract negotiation.

Public hearings on a proposed agreement with RRLC were conducted in White Salmon on May 16, 1989, Roosevelt on May 17, 1989, and Goldendale on May 18, 1989, and written comment was received through May 25, 1989. Klickitat County considered the input received at public hearings and in writing, and considered reports and recommendations of its staff and R.W. Beck and Associates. Resolution No. 07489 authorized the Agreement concerning Solid Waste Handling ("Agreement") between Klickitat County and RRLC on May 26, 1989.

Consistent with the Agreement, RRLC commenced the process for full environmental review on the development of a regional landfill and related solid waste management projects ("Klickitat County Solid Waste Project" or "Project"). The Project proposed three related actions: a model rural recycling and waste reduction program, a new regional landfill, and regional transportation to serve the landfill. Based on public and agency



comments, the preferred alternative was to implement an augmented program of the reduction/recycling alternatives, a landfill at the Clark site near Roosevelt, and rail transportation.

A final Project environmental impact statement (EIS) was issued on December 18, 1989. The Project EIS was incorporated by reference in the 1990 Plan Update and associated environmental review (see WAC 197-11-425(6)).

RRLC sought a CUP before Board of Adjustment for the Clark site near Roosevelt under matter No. 89-13. The Board of Adjustment held public hearings and meetings on the CUP application on January 8, 11, 18, and 22, 1990. On January 22, 1990, the Board of Adjustment entered its Findings of Fact, Conclusions and Disposition, granting the CUP for development of a site now identified as RRL.

The existing Agreement was amended in 2011 and commits to continued operation through 2032 with three 5-year extensions allowable.

The Agreement can be renegotiated as both parties agree. Significant changes to the Agreement are subject to environmental review. In addition, the Agreement provides for Klickitat County options to not dispose of waste at RRL, however, disposal costs would increase from the present negotiated free disposal. Highlights of the Agreement are outlined as follows:

- Republic Services provides and pays for recycling, transfer, and disposal site access, services, labor, overtime labor, standby labor, methods, materials, equipment, transportation, power, fuel, water, taxes and other facilities and services necessary for performance under the Agreement for Klickitat County waste.
- Republic Services is responsible for preparation of technical documents, designs, environmental review, permits, testing, construction, and operating activities of facilities.
- Republic Services is responsible for local, state, and federal permits and permit requirements associated with phases of projects, including but not limited to, the siting, constructions, operation, and closing of RRL and associated improvements, the drop box and recycling stations, and the intermodal transfer facility.
- Republic Services is solely responsible for facilities' closure and post-closure activities.
- Specific areas for origination of waste are identified and approved for acceptance to RRL.
- Minimum payment to Klickitat County is guaranteed to be paid in quarterly payments. Contract reopener is established, at Klickitat County's sole option, to negotiate additional fees if waste received is in excess of five million tons in any calendar year.
- Klickitat County is to be notified of any major customers whose waste will be accepted with a copy of the exporting jurisdictions solid waste management plan and MRW management plan provided for review and approval.
- Klickitat County designates the facilities for waste collected in the unincorporated areas to be delivered to RS facilities for transfer and disposal and utilize reasonable

best efforts to maintain and enforce intergovernmental agreements with the Cities to designate these facilities for disposal.

- Klickitat County and RS work cooperatively to establish and maintain educational programs regarding hazardous waste reduction and disposal.
- RS developed a countywide Model Rural Recycling Program Plan and a MRW receiving and disposal plan and is required to implement and maintain both.

8.1.3 Roosevelt Regional Landfill Operation

The RRL began receiving wastes on November 1, 1990. Since that time, 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 2 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 (PUD) and RRL a power plant was built in 1998 to covert methane gas generated in RRL to electrical power. Methane is collected in a network of wells buried in RRL 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.

In 2017, the Klickitat PUD authorized contracts to begin the production and selling of renewable natural gas from methane utilized to generate electricity. 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 one of the largest renewable natural gas projects in the United States. Formal dedication of the renewable natural gas plant was in September 2019.

A separate ash monofill was added to RRL in 1991 and serves the disposal of incinerator ash received from the City of Spokane. In 2016, RS 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 is estimated to recover and recycle 46,200 tons of ferrous metals and 42,900 tons of non-ferrous metals annually.

8.2 Existing Conditions

This section provides information regarding disposal within Klickitat County.



8.2.1 Republic Services Roosevelt Regional Landfill

The RRL is located at 500 Roosevelt Grade Road, Roosevelt, Washington, 99356, and is owned and operated by RS. The location is shown on Figure 6-1. RRL currently receives waste from most counties in Washington State, and a number of out-of state and out-of country areas as outlined in Table 8-1.

Table 8-1. Roosevelt Regional Landfill Tonnage (2018)

Waste Import Origin ¹	MSW	Other ²	Total All
Washington State Tonnage			
Adams County	-	812	812
Benton County	-	1,176	1,176
Chelan County	-	116	116
Clallam County	15,370	324	15,694
Cowlitz County	182	11,152	11,334
Ferry County	2,475	-	2,475
Franklin County	-	1,558	1,558
Grant County	-	1,098	1,098
Grays Harbor County	27	929	956
Island County	52,520	1,933	54,453
Jefferson County	20,700	11,943	32,643
King County	-	581,075	581,075
Kitsap County	-	7,935	7,935
Kittitas County	-	10	10
Klickitat County	25,495	2,348	27,843
Lewis County	6,598	11,441	18,039
Lincoln County	3,072	-	3,072
Mason County	37,866	180	38,046
Pacific County	-	160	160
Pend Oreille County	7,745	-	7,745
Pierce County	-	18,809	18,809
San Juan County	5,022	285	5,307
Skagit County	113,413	14,986	128,399
Snohomish County	526,098	46,739	572,837
Spokane County	36,433	70,197	106,630



Waste Import Origin ¹	MSW	Other ²	Total All
Thurston County	196,421	2,882	199,303
Whatcom County	49,276	14,359	63,635
Whitman County	29,821	1,113	30,934
Yakima County	-	4,709	4,709
Washington State	-	11	11
Out of State/Out of Country Tonnage			
Out of State – Idaho	123	848	971
Out of State - Montana	18	-	18
Out of State - Alaska	22,759	7,318	30,077
Out of State - California	-	284	284
Out of State - Oregon	-	2,471	2,471
Out of State - Guam	-	82	82
Out of Country – Marshall	-	18	18
Out of Country – British Columbia	281,697	150,408	432,105
Total Waste Imported (In Tons)	1,433,131	969,709	2,402,840

Notes:

1. Information provided by Republic Services.
2. Other waste included C&D debris, industrial, petroleum contaminated soils (PCS), tires, incinerator ash, contaminated soil, dredge materials, medical waste and other.

As of January 2, 2019, RRL had 172,000,000 tons of remaining capacity with an estimated closure date of year 2100.

8.2.2 Horsethief Landfill

Horsethief Landfill is located in the south central portion of Klickitat County and was owned and operated by Klickitat County until 1994. Due to a determination from the Columbia River Gorge National Scenic Area that it was not a compatible land, Horsethief Landfill was closed in compliance with WAC 173-304-407 which required 20 years of post-closure monitoring. In 2014, an Engineering company was hired to monitor and assess the stability of Horsethief and found that the criteria for ending post-closure care had been met.

8.3 Status of Previous Recommendations

Status of recommendations made by the 2013 Plan are presented in Appendix D.

8.4 Alternatives and Evaluations

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



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

8.4.1 Agreement between Klickitat County and Republic Services

Klickitat County should continue to maintain, monitor and update the Agreement as necessary for compliance and requirements outlined for waste importation.

8.5 Recommended Actions

The following recommendations are made for disposal by Klickitat County:

- D1) Waste should continue to be disposed per the Agreement.
- D2) Continue to maintain, monitor and update the Agreement
- D3) Ensure continued compliance with Permits by monitoring, including retention of an inspector.

9 Energy Recovery

This chapter addresses emerging technologies in energy recovery and decrease waste disposal and generation of greenhouse gases.

9.1 Background

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 Production of Electricity or Fuel Generation
- Chemical Technologies
 - Hydrolysis
 - Catalytic and Thermal Depolymerization
- Mechanical Technologies
 - Autoclave and 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.

9.2 Existing Conditions

As discussed in Chapter 8 Disposal, waste from Klickitat County is disposed at RRL located in Klickitat County. The RRL recovers energy through direct combustion of collected landfill gas to electricity and through conversion of landfill gas to pipeline quality compressed natural gas. In collaboration, Klickitat Public Utility District and Republic Services, partnered on a power plant



H.W. Hill Landfill Gas Project

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.

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.

9.3 Status of Previous Recommendations

Status of recommendations made by the 2013 Plan are presented in Appendix D.

9.4 Alternatives

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

9.4.1 Energy Recovery Needs

Klickitat County's waste stream is too small to economically support the capital expenditures required for construction and operation of waste processing and conversion technology alternatives.

Waste collected in Klickitat County is disposed at RRL. Ample capacity is currently available at RRL and conversion technologies are in use. Information regarding RRL and energy recovery technologies at the site is included in Chapter 8 Disposal.

9.5 Recommended Actions

The following recommendations is made by Klickitat County:

- ER1) Monitor developments and progress in waste processing and conversion technologies utilized and support the continued use of landfill gas to energy operations.

10 Moderate Risk Waste

This chapter discusses programs for MRW, identifies relevant planning issues, and develops and evaluates alternative strategies.

10.1 Background

This section provides definitions, regulations and guidance, and Klickitat County objectives for managing MRW.

MODERATE RISK WASTE COLLECTION

Klickitat County currently contracts with RS, who owns and operates transfer station and drop box sites in Klickitat County, for collection, recycling and disposal of MRW. The collection of MRW for both households and Small Quantity Generators (SQG) is provided free of charge at transfer facilities in Klickitat County. Klickitat County pays for the disposal costs for MRW collected. Additional information on locations, hours of operation and site locations is located in Chapter 6 Transfer Facilities. The SWD Landfill Compliance Officer acts as an agent for enforcement and the Klickitat County provides oversight of the facilities.

10.1.2 Definitions

MRW refers to materials that have the characteristics of and pose the same risks as hazardous wastes – they are flammable, corrosive, toxic, and/or reactive. State and Federal law do not regulate MRW as hazardous wastes due to their relatively small quantities. MRW is regulated by Chapter 173-350-360 WAC under the authority of RCW 70A.300 and RCW 70A.205. MRW is defined as solid waste that is limited to conditionally exempt SQG waste and HHW.

HOUSEHOLD HAZARDOUS WASTE

The Hazardous Household Substances List developed by Ecology is shown in Table 10-1. When generated in a residence, these products become HHW when discarded.

SMALL QUANTITY GENERATOR WASTE

Many businesses and institutions produce small quantities of hazardous wastes; the list is the same as for HHW (see Table 10-1). SQGs produce hazardous waste at rates less than 220 pounds per month or per batch (or 2.2 pounds per month or per batch of extremely hazardous waste) and accumulate less than 2,200 pounds of hazardous waste onsite (or 22 pounds of extremely hazardous waste). Extremely hazardous wastes include certain pesticides and other poisons that are more toxic and pose greater risks than other HHW. SQGs are conditionally exempt from state and federal regulation, meaning they are exempt only as long as they properly manage and dispose of their wastes.



Table 10-1. Hazardous Household Substances List

Substance or Class of Substance	Flammable	Toxic	Corrosive	Reactive
Group 1: Repair and Remodeling				
Adhesives, Glues Cements	X	X		
Roof Coatings, Sealants		X		
Caulking and Sealants		X		
Epoxy Resins	X	X		X
Solvent Based Paints	X	X		
Solvents and Thinners	X	X	X	X
Paint Removers and Strippers		X	X	
Group 2: Cleaning Agents				
Oven Cleaners		X	X	
Degreasers and Spot Removers	X	X	X	
Toilet, Drain and Septic Cleaners		X	X	
Polishes, Waxes and Strippers	X	X	X	
Deck, Patio, and Chimney Cleaners	X	X	X	
Solvent Cleaning Fluid	X	X	X	X
Household Bleach (>8% solution)			X	
Group 3: Pesticides				
Insecticides	X	X		
Fungicides		X		
Rodenticides		X		
Molluscides		X		
Wood Preservatives		X		
Moss Retardants		X	X	
Herbicides		X		
Fertilizers		X	X	X
Group 4: Auto, Boat, and Equipment Maintenance				
Batteries		X	X	X
Waxes and Cleaners	X	X	X	
Paints, Solvents, and Cleaners	X	X	X	X
Additives	X	X	X	X
Gasoline	X	X	X	X
Flushes	X	X	X	X
Auto Repair Materials	X	X		
Motor Oil	X	X		
Diesel Oil	X	X		
Antifreeze		X		
Group 5: Hobby and Recreation				
Paints, Thinners, and Solvents	X	X	X	X
Chemicals (including Photo and Pool)	X	X	X	X
Glues and Cements	X	X	X	
Inks and Dyes	X	X		



Table 10-1. Hazardous Household Substances List

Substance or Class of Substance	Flammable	Toxic	Corrosive	Reactive
Glazes		X		
Chemistry Sets	X	X	X	X
Pressurized Bottled Gas	X	X		X
White Gas	X	X		X
Charcoal Lighter Fluid	X	X		
Batteries		X	X	X
Group 6: Persistent Bioaccumulative Toxins				
Mercury-Containing Products		X	X	
Lead-Containing Products		X		
E-Waste		X		
Polycyclic Aromatic Hydrocarbons		X		
Polychlorinated Biphenyl		X		
Group 7: Miscellaneous				
Ammunition	X	X	X	X
Asbestos		X		
Fireworks	X	X	X	X
Marine Aerial Flares	X	X		
Pharmaceuticals		X		
Non-Controlled Substances		X		
Sharps		X		
personal Care Products	X	X	X	

Source: Guidelines for Developing and Updating Local Hazardous Waste Plans - Appendix F, Ecology, 2010.
<https://fortress.wa.gov/ecy/publications/documents/1007006.pdf>

10.1.3 Regulations and Guidance

MRW is regulated primarily by state and federal laws that govern proper handling and disposal of these wastes. A review of the recent regulatory changes affecting solid wastes and MRW is provided in Chapter 1 Background, and the relevant details are reproduced below.

MOVING WASHINGTON BEYOND WASTE AND TOXICS PLAN

Ecology released an updated 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 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.”*

One of the five sections of Moving Washington Beyond Waste and Toxics Plan is “Managing Hazardous Waste and Materials.” The background information for this initiative explains that perhaps as little as 1 percent of SQG waste is properly managed on a statewide basis. For HHW, only about 16 percent (statewide) is estimated to be collected through local programs. Moving Washington Beyond Waste and Toxics Plan provides the following goals pertaining to MRW:

- Until toxic substances are phased out of products, and use of hazardous materials declines, MRW collection will be maximized (GOAL HWM 11).
- MRW locations and programs will provide increased services for residents, businesses, and underserved communities (GOAL HWM 12).
- Facilities that collect MRW will be properly permitted (if required) and in compliance with applicable laws and rules (GOAL HWM 13).

HAZARDOUS WASTE MANAGEMENT ACT (CHAPTER 70A.300 RCW)

The Hazardous Waste Management Act establishes requirements for state and local hazardous waste management plans, rules for hazardous waste generation and handling, criteria for siting hazardous waste management facilities, and local zoning designations that permit hazardous waste management facilities. The Hazardous Waste Management Act also establishes waste management priorities for hazardous wastes. In order of decreasing priority, the management priorities are:

- Waste reduction,
- Waste recycling,
- Physical, chemical, and biological treatment,
- Incineration,
- Solidification/stabilization/treatment, or
- Landfill.

The waste hierarchy is a key element in determining compliance of this Plan with state requirements.

Rules implementing the Hazardous Waste Management Act are codified in the Dangerous Waste Regulations (Chapter 173-303 WAC). This regulation defines dangerous waste materials and establishes minimum handling requirements. State rules specifically exclude HHW and SQG wastes from Dangerous Waste Regulations, which have been amended several times over the years, most recently in 2014. The 2014 amendments allow mercury-containing equipment to be managed as a universal waste, require recyclers and used oil processors to develop closure plans and meet financial responsibility requirements, and provides several other changes and updates.

MERCURY-CONTAINING LIGHTS PRODUCT STEWARDSHIP PROGRAM

Washington State rules (WAC 173-910) established a product stewardship program for mercury-containing lights. Producers of mercury containing lights sold for residential use must finance and participate in the stewardship program. Counties can choose to have a

collection site at their facilities and retailers can also be designated collection sites for spent mercury-containing lights. Additional information on Mercury-Containing Lights Product Stewardship can be found in Chapter 3 Waste Reduction and Recycling.

PAINT STEWARDSHIP

In 2019, SHB 1652 was approved by the Legislature to require producers of architectural paints sold in Washington State to participate in an approved paint stewardship program. As this bill was just passed, Ecology will be working to implement the bill and provide oversight of programs as they are established.

USED OIL

Washington State law (RCW 70A.205) requires local governments to manage used oil in conjunction with their MRW programs and to submit annual reports to Ecology.

10.2 Moderate Risk Waste Generation

RCW 70A.300(1)(a) requires local governments to prepare hazardous waste plans that contain an assessment of the quantities, types, generators and fate of hazardous waste in each jurisdiction. This Plan serves to compile that data for Klickitat County and this Chapter focuses on the MRW associated with HHW and SQG aspects/quantities of hazardous waste. The quantities, types and fate of MRW in Klickitat County are described in Section 10.3. The following subsections focus on the generators of this waste in Klickitat County.

10.2.1 Hazardous Waste Inventory

The following information helps provide an inventory of hazardous waste management in Klickitat County by addressing dangerous waste generators (i.e., large-quantity generators), contaminated sites, transporters and processing facilities, and locations where hazardous waste facilities can be sited (“zone designations”).

DANGEROUS WASTE GENERATORS

- Ecology records (latest data as of December 2018) show that five (5) businesses and institutions in Klickitat County are registered as hazardous waste generators and reported generation of waste. Sixteen businesses and institutions in Klickitat County are registered with EPA or state identification numbers but did not report generating waste in 2018.

REMEDIAL ACTION SITES

Ecology’s list of confirmed and suspected contaminated sites in Klickitat County can be found at: <https://apps.ecology.wa.gov/tcpwebreporting/reports/cleanup/all?County=Klickitat>. As of July 2019 there were ninety (90) of these sites identified in Klickitat County.

HAZARDOUS WASTE SERVICES (TRANSPORTERS AND FACILITIES)

Multiple private companies provide transportation and disposal services for a wide range of materials. The current list of these companies can be found at

<http://www.esdwa.com/services/index.cfm>, under the Hazardous Waste & Materials master category group.

10.2.2 Inventory of Moderate Risk Waste Generators

As stated above, MRW generators include HHW from local residents, as well as SQG from local businesses and institutions. The 2018 population of Klickitat County is 21,980 residents, currently residing in an estimated 10,551 housing units.¹ However, not all residents and/or businesses are generators of MRW. For residential sources in particular, products may be stored for several years before the resident determines that the material is no longer useful and takes it to a MRW facility for disposal. In addition, although quantities and types of MRW collected and shipped are tracked, it is unknown how many residents are recycling or disposing of wastes through drop-off programs and private collection services. Also unknown is the number of SQGs and large-quantity generators utilizing the services of private collection companies for their hazardous wastes.

10.3 Existing Conditions

This section describes existing programs to manage MRW in Klickitat County.

10.3.1 Current Moderate Risk Waste and Oil Programs

MRW COLLECTION

MRW in Klickitat County is collected primarily through the transfer stations and drop box facilities. The following are available drop-off programs active in Klickitat County, including:

- The Goldendale Transfer Station, Dallesport Transfer Station, BZ Corners Drop Box Site, and Roosevelt Drop Box Site accept hazardous wastes from households and SQG's. Wastes are accepted at no charge. Residents and SQG's can bring in MRW any time during facility operational hours. SQG's need to call ahead for approval.
- Electronics can be recycled in Klickitat County at the Goldendale Transfer Station.
- Fluorescent tubes can be recycled at the Goldendale Transfer Station and Allyn's Building Center. In addition fluorescent tubes are recycled at the Dallesport Transfer Station, BZ Corners Drop Box Site, and Roosevelt Drop Box Site.
- The WSDA conducts agricultural chemical waste collection events in Eastern Washington on an as needed basis. Participants must sign up in advance to bring in wastes, but there is no cost to participate.

¹ 2018 estimate of total housing units (source: Washington State OFM)

- Large-quantity generators use the services of private companies that collect specific types of wastes, but little information is publically available on the amounts collected in this manner.

USED OIL COLLECTION

There is currently limited used oil collection in Klickitat County. Used oil is primarily collected at BZ Corners Drop Box Site and Goldendale Transfer Station.

PROCESSING, TRANSPORT AND DISPOSAL

The Agreement between Klickitat County and RS requires the implementation of certain MRW programs, as follows:

- Operation of MRW collection sites at transfer stations and at RRL with trained staff provided to manage and coordinate collection.
- RS submits an MRW implementation plan for Klickitat County approval. This plan provides planning for receipt and disposal of MRW from the collection sites and other operational details.
- Recycling of MRW from collection sites when reasonable to do so.
- Transport of remaining MRW from collection events for final disposal, treatment or recycling.
- Agricultural container education, public outreach, and disposal for insecticides and fertilizer.
- Public education, outreach and awareness programs through media and participation in public events.

PROCESSING, TRANSPORT AND DISPOSAL

MRW to be shipped offsite for recycling or disposal is sorted at transfer stations and drop box sites according to its Washington State Department of Transportation hazard classification (flammable, toxic, acid, corrosive or reactive). The MRW is stored in secured storage lockers until sufficient quantities are available for transport. MRW is picked up by an outside vendor then shipped to licensed hazardous waste treatment, storage and/or disposal facilities. Table 10-2 provides the quantities of MRW processed, transported and disposed of in 2018 by site for a total of 37,743 pounds disposed:

Table 10-2. MRW Quantities Shipped (2018)

Waste Type	BZ Corners Drop Box	Dallesport Transfer Station	Goldendale Transfer Station	Roosevelt Drop Box
Aerosols	150	-	-	-
Acids	83	-	161	-
Bases	16	-	209	-
Batteries: Dry Cell	250	-	3,593	14



Table 10-2. MRW Quantities Shipped (2018)

Waste Type	BZ Corners Drop Box	Dallesport Transfer Station	Goldendale Transfer Station	Roosevelt Drop Box
Oil Non-Contaminated	-	-	5,720	-
Paint:				
Oil Based	1,700	700	4,550	900
Paint Related Materials	4,750	-	8,150	-
Pesticides/Poisons	-	-	1,855	307
Flammables	701	450	2,450	800
Mercury/Light Ballast	75	-	2	-
Oxidizers	-	-	88	2
Other	-	-	67	-
TOTAL (in pounds)	7,725	1,150	26,845	2,023

Note this table presents data reported to Ecology regarding amount of MRW shipped, processed and disposed. Information presented does not reflect the amount of materials collected at these sites.

MRW EDUCATION

Klickitat County educates residents about proper handling and disposal of HHW through their website and advertising campaigns. Additional information can be found at <https://www.klickitatcounty.org/376/Household-Hazardous-Waste>.

COMPLIANCE AND ENFORCEMENT

Compliance issues are handled by the SWD Compliance Officer, who responds to complaints and other problems as these are identified. Klickitat County Health Department provides oversight.

10.4 Status of Previous Recommendations

Status of the recommendation made by the 2013 Plan can be found in Appendix D.

10.5 Alternatives and Evaluations

There are generally five components for local MRW management programs; two that address educational efforts and three that help fulfill the mandate to prepare a “program to manage moderate-risk waste” (RCW 70A.300(1)(a)). These five elements are as follows:

- Public education program;
- Technical assistance program for businesses;
- Collection program for HHW and used oil;
- Collection program for business wastes; and

- A plan or program to assess compliance by SQG and others.

The existing service gaps and other issues connected to these components are discussed below.

10.5.1 Public Education

Klickitat County currently informs the public about opportunities for proper disposal of MRW and used oil through its website and advertising campaigns. Public Education should be continued and expanded as new programs are implemented to inform residents about properly handling and disposed of HHW. RS is also required to participate in public education and outreach programs through the Agreement with Klickitat County.

10.5.2 Business Technical Assistance

Klickitat County is not currently providing technical assistance to businesses about SQG waste handling and disposal. The level of expertise required to effectively assist many businesses would require significant amounts of training for specific types of businesses, and is better handled at the state level.

10.5.3 Collection

Collection is currently being provided through the transfer station and drop box sites and other opportunities. RS, through the Agreement with Klickitat County, provides free collection of MRW. Klickitat County pays for disposal of both household and SQG MRW waste and currently utilizes LSWFA grant funding to assist in paying for household MRW waste disposal. LSWFA grant funding does not reimburse for SQG waste disposal.

10.5.4 Used Oil Collection

Klickitat County is currently providing used oil collection on a limited basis through the Goldendale Transfer Station and BZ Corners Drop Box Site. Klickitat County should consider re-establishing used oil collection at the other transfer stations and drop box sites through a cooperative effort with RS by developing Best Management Practices, Policies, Procedures, and testing protocols. Additional sites will provide more citizens the opportunity to dispose of these commodities in an environmentally sound manner.

10.5.5 Compliance and Enforcement

Compliance and enforcement is currently being conducted at the transfer stations on a monthly basis and there are no known issues with this approach.

10.5.6 Moderate Risk Waste Plan Preparation

RCW 70A.300 requires local governments to prepare hazardous waste plans. Klickitat County has incorporated the hazardous waste plan update process into the Klickitat County Solid Waste Management Plan update process to maintain compliance with the rule.

10.6 Recommended Actions

The following recommendations are made for MRW by Klickitat County:



- MRW1) Enhance the public education and outreach program for handling of MRW waste for households and businesses as a cooperative effort.
- MRW2) Consider re-establishment of the used oil collection program at more transfer station and drop box sites.
- MRW3) Continue to coordinate the schedule and process for updating the MRW Plan with the solid waste management plan (as is the current practice).
- MRW4) If grant funding is reduced or eliminated, consider implementing a fee based program to accept business waste and setting aside a fraction of the “host fee” from the Agreement for the MRW program.
- MRW5) Update the MRW implementation plan, as appropriate, for review and approval by Klickitat County.

11 Special Wastes

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

11.1 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.

Table 11-1. Special Wastes

Section	Special Waste
11.2	Agricultural Waste
11.3	Animal Carcasses
11.4	Appliances
11.5	Asbestos
11.6	Biomedical/Infectious Waste
11.7	Construction/Demolition Debris
11.8	Electronic Waste
11.9	Junk Vehicles
11.10	Petroleum Contaminated Soils
11.11	Pharmaceuticals
11.12	Street Sweepings / Vector Waste
11.13	Tires
11.14	Disaster Debris Management

11.2 Agricultural Waste

This section addresses disposal of agricultural waste within Klickitat County.

11.2.1 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.

11.2.2 Current Practice

As defined above, little of the agricultural waste generated is disposed of within Klickitat County's programs. 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 11.3.

Unusable produce from a food processor, such as a load of rotten potatoes, is handled as MSW and may be disposed of at RRL.

Note that empty pesticide and herbicide containers may be disposed of as refuse following triple rinsing.

11.2.3 Planning Issues

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

11.3 Animal Carcasses

This section addresses disposal of animal carcasses within Klickitat County.

11.3.1 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 RRL or a transfer station for disposal.
2. Animals killed by collision with motor vehicles ("road kill") are taken to a transfer station 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 Klickitat County.

11.3.2 Current Practice

Klickitat County's policy and procedures for disposal of animals can be summarized as follows:

- Animal carcasses are accepted for disposal at RRL.
- RRL does not accept animals preserved in formaldehyde as these designate as medical waste.
- Customers are charged the same rate as for garbage disposal.
- Customers wishing to dispose of infectious and/or diseased animals are directed to Klickitat County Health Department for further instructions.

11.3.3 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 does not deactivate prions. Incineration is also an accepted method of BSE-cattle 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. Onsite 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 degrees Celsius (140 degrees 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.

11.4 Appliances

This section addresses disposal of appliances generated within Klickitat County.

11.4.1 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) also known as 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 CFCs are designated as dangerous wastes under WAC 173-303, although they are exempt from these rules if recycled properly.

11.4.2 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 dealers recycle an old appliance when a new one is delivered. Appliances are accepted at no charge at the transfer station and drop box sites. RS confirms the “Freon” refrigerants from refrigerators, freezers, air conditioners, and similar devices are removed. Recreational vehicle refrigerators charged with ammonia have been noted at the transfer station sites and have been accepted free of charge. Industrial-sized appliances are also accepted at no charge at the transfer stations and drop box sites.

RS contracts with various companies to haul and recycle appliances based on price and availability.

11.4.3 Planning Issues

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

11.5 Asbestos

This section addresses asbestos disposal within Klickitat County.

11.5.1 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).

11.5.2 Current Practice

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

11.5.3 Planning Issues

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

11.6 Biomedical/Infectious Waste

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

11.6.1 Regulations and Guidelines

Washington State's definition of biomedical waste (RCW 70A.205) 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 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.

11.6.2 Current Practice

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

11.6.3 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 for human immunodeficiency virus, arthritis, osteoporosis, and psoriasis delivered via syringe that have become available for home use.

11.7 Construction and Demolition Debris

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

11.7.1 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 Klickitat 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.”

Ecology released an updated waste and toxics reduction plan in June 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 State, 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 (including 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.

11.7.2 Current Practice

There are no operational C&D processing facilities in Klickitat County at this time. C&D debris is currently accepted at the RRL and in small quantities, at the transfer stations and drop box sites.

11.7.3 Planning Issues

C&D debris management and disposal practices are generally adequate and should be maintained.

11.8 Electronic Waste

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

11.8.1 Regulations and Guidelines

Electronic products may contain heavy metals and other chemicals at hazardous levels that make them difficult to dispose of safely. The Electronic Product Recycling law (RWC 70A.205) 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.

11.8.2 Current Practice

The E-Cycle Washington program allows for 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.

Klickitat County currently has one site, the Goldendale Transfer Station, which accepts E-Waste.

11.8.3 Planning Issues

Based on the E-Cycle Washington statistics, the statewide program is working well.

11.9 Junk Vehicles

This section addresses disposal of junk vehicles within Klickitat County.

11.9.1 Regulations and Guidelines

RCW 70A.200.060 prohibits the abandonment of junk vehicles upon any property located in a county unincorporated area. Abandoned vehicles are also regulated under RCW 46.55, which establishes rules for removal and disposal of junk vehicles. If a junk vehicle is abandoned in violation of RCW 70.93.060, the vehicle's removal, disposal, sale, and penalties that may be imposed against the registered owner are governed by RCW 46.55.230.

11.9.2 Current Practice

RS does not accept any licensed vehicles for disposal at transfer stations, drop box sites, or RRL due to Washington State rules and regulations. Junk vehicles may be taken to an auto recycling center for disposal.

11.9.3 Planning Issues

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

11.10 Petroleum Contaminated Soils

This section addresses disposal of PCS within Klickitat County.

11.10.1 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 RRL. 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.

11.10.2 Current Practice

Klickitat County refers PCS to RRL for disposal.

11.10.3 Planning Issues

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

11.11 Pharmaceuticals

This section addresses disposal of pharmaceuticals within Klickitat County.

11.11.1 Regulations and Guidelines

Generally, two types of pharmaceuticals are of interest to Klickitat County waste management: 1) controlled substances (prescription drugs and illegal drugs) and 2) over-the-counter, nonprescription substances (for example aspirin, vitamins, other health supplements, and cold medicines). 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.

Washington's Drug Take-Back program (RCW 69.48), to securely collect and dispose of unwanted medications requires potential programs to submit for approval no later than July 1, 2019. Manufacturers that sell drugs in Washington must participate in a collection program.

11.11.2 Current Practice

Disposal of unused or outdated prescription and nonprescription substances occurs in an informal and inconsistent fashion. Historically, people have been told to dispose of unwanted prescription drugs and other medicines by flushing down a 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 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.

If available, Klickitat County encourages giving pharmaceutical waste to community drug take-back programs to provide proper disposal rather than mixing with trash. Klickitat Valley Hospital also provides a take-back programs and can be contacted for additional information.

11.11.3 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 into 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 supported creation of a statewide program for the safe return and disposal of unwanted medicines. Resources for this can be found at www.takebackyourmeds.org.

Current pharmaceutical waste management and disposal practices are generally adequate.

11.12 Street Sweepings/Vactor Waste

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

11.12.1 Regulations and Guidelines

Street sweepings and vactor wastes 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.

11.12.2 Current Practice

Klickitat County currently refers street sweeping and vactor waste to RRL for disposal.

11.12.3 Planning Issues

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

11.13 Tires

This section addresses tire disposal within Klickitat County.

11.13.1 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.

11.13.1 Current Practice

Many tire shops and auto repair shops recycle the tires they replace (typically for a fee). Waste tires are also accepted at transfer stations, drop box sites, and RRL for disposal with a limit of five per trip.

11.13.2 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.

11.14 Disaster Debris Management

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

11.14.1 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 Klickitat 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.

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. In March 2008 EPA developed *Planning for Natural Disaster Debris* (EPA 2008) as a tool for local communities to create such a DDMP. 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 Klickitat County in developing a DDMP.

11.14.2 Current Practice

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

From January 2010 to June 2019, three federally declared disasters affected Klickitat County, according to FEMA's website.

- Severe Winter Storms, Flooding, Landslides, and Mudslides in 2011
- Severe Winter Storms, Flooding, Landslides, and Mudslides in 2012
- Horsethief Butte Fire in 2015

Klickitat County is historically at risk primarily for storm, fire and flood disasters. However, wind-borne ash from the 1980 volcanic eruption of Mt. St. Helens affected Klickitat County. Table 11-2 summarizes the types of disasters most likely to occur in or near Klickitat 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.

Table 11-2. Potential Disasters and Resultant Debris

Debris	Biohazard/ Epidemic	High Winds	Floods	Wildfires	Winter Storms	Volcanoes
C&D Material: concrete, asphalt, metal, wallboard, brick, glass, wood		XX	X	X	X	X
Personal Property: appliances, E-Waste, MRW, furniture, other personal belongings		XX	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				X	
Displaced Sediments: sand, soil, rock, sediment			XX	X		X
Mixed other debris		X	X	X		X

X = smaller quantity; XX = significant quantity

Planning for debris management enables Klickitat 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

11.14.3 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 Klickitat 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 Klickitat County staff, and their responsibilities; and
- Plan for monitoring debris removal and disposal operations.

11.14.4 Status of Previous Recommendations

No recommendations were made regarding Special Wastes in the 2013 Plan.

11.15 Alternatives and Evaluations

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

11.15.1 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. An example is to provide an additional E-Waste collection site in Klickitat County since there is currently one collection site, the Goldendale Transfer Station.

- **Product stewardship:** new product stewardship programs could be considered or supported to address specific waste materials.

11.15.2 Construction and Demolition Debris Alternatives

There are currently few opportunities in Klickitat County 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 onsite and offsite 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. Offsite reuse could be accomplished through a variety of means, including reuse stores and private efforts.
- **Onsite 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 onsite.
- **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 transfer and disposal facilities:** Collection containers for reusable and/or recyclable C&D materials at transfer stations and drop box sites 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 a low monetary value.

Klickitat County could partner with businesses that recycle material to salvage and divert recyclable materials received at transfer stations and drop box sites. Materials that suitable to be recycled and resold could be set aside for pickup or customers could be redirected to specific businesses that resell or reuse materials.

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 Klickitat

County-provided brochures. Contractors and homeowners could be given a brochure when they apply for a permit.

11.15.3 Disaster Debris Management Alternatives

SWD could coordinate with Klickitat County Emergency Management Department 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.

Klickitat County 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.

11.15.4 Evaluation of Alternative Strategies

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

11.16 Recommended Actions

The following recommendations for special wastes are made by Klickitat:

- SW1) Continue to dispose special wastes through a cooperative effort with Klickitat County, Republic Services and Ecology.
- SW2) Monitor federal and 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 debris.
- SW4) Partner with private organizations to promote recycling and reuse of C&D wastes and building materials.
- SW5) Develop an internal plan for handling disaster debris, in coordination with the Klickitat County Emergency Management Department.
- SW6) Consider adding an additional E-Waste collection site.



12 Administration and Enforcement

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

12.1 Background

Klickitat County, the 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 Klickitat County system meets applicable standards for the protection of human health and environmental quality.

12.2 Existing Conditions

Administrative responsibility for solid waste handling systems in Klickitat County is currently divided among several agencies and jurisdictions in local, county, and state government. RRL operates under an Agreement between RS and Klickitat County, and under permits issued by Klickitat County and Ecology. Klickitat County and Ecology have cooperated in aspects of observation and monitoring of RRL. Each organization involved in Klickitat County solid waste management system is described below.

12.2.1 Klickitat County Solid Waste Department

The Washington State Solid Waste Management Act, Chapter 70A.205 RCW assigns local government the primary responsibility for managing solid waste. Solid waste handling, as defined in Chapter 70A.205 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."

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

Klickitat County 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. Copies of these agreements are included as Appendix A.

Operations of RRL requires the Solid Waste Director to provide an increased level of administration, inspection and oversight. Additional consultants are needed to observe liner installation and analyze some test results. One Recycling Coordinator is needed to assist with waste reduction and recycling programs, one Litter Crew Supervisor to assist

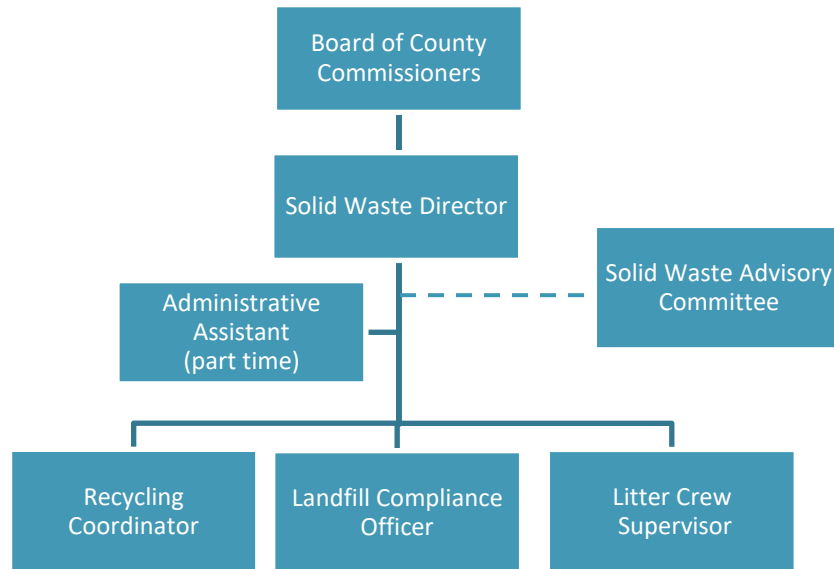
with the litter crew operations and one Landfill Compliance Officer is needed onsite at RRL. Staff clerical support requires one half-time person.

Klickitat County exercises its solid waste responsibilities through the SWD. The specific administrative functions performed include the following:

- 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 persons in Klickitat County.
- Providing staff support for the SWAC.

Figure 12-1 illustrates the Klickitat County SWD organizational structure. The SWD is staffed by one part time and four full time employees who handle administration, inspection, coordination, education and outreach activities.

Figure 12-1. Solid Waste Department Organizational Structure



The SWD is funded by fees collected from the Agreement with RS. Klickitat County and also receives grant monies from Ecology for solid waste management planning activities, litter clean up, MRW disposal, and pilot projects. Table 12-1 shows the current budget (2019) for the SWD.



Table 12-1. Solid Waste Department 2019 Budget

2019 ¹ Budgeted	
Revenues	
LSWFA Grant	\$103,000
Litter Grant	\$34,000
Administrative Fees	\$251,652
Reimbursable Contracts	\$10,000
Total Revenues	\$388,552
Expenditures	
Administration General	\$345,878
Administration Planning	\$5,000
Operations General	\$27,000
Transfer Out	\$10,674
Total Expenses	\$388,552
Total Balance/(Deficiency)	\$0

Note: All figures are in dollars.

1. The 2019 figures are the budgeted amounts

12.2.2 Klickitat County Solid Waste Advisory Committee

Per RCW 70A.205, 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.

12.2.3 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 five incorporated cities and towns in Klickitat County.

Municipalities contract for collection programs and one private hauler currently operates in the unincorporated areas. Fees charged for the service cover the expenses of the system. Detailed information about collection in individual cities is included in Chapter 5 Solid Waste Collection.

12.2.4 Klickitat County Health Department

The Health Department works with the public, cities, and state agencies to develop and implement plans for the safe storage, collection, transportation, and final disposal of solid

waste. The Health Department works to assure compliance with RCW 70A.205 and WAC 173-304 - Minimum Functional Standards for Solid Waste Facilities. The Health Department is responsible for the following activities:

- Permitting solid waste facilities operating in Klickitat County.
- Assure permits are consistent with the Plan, local ordinances, and appropriate Washington State and federal regulations.
- Oversight of existing permitted facilities.
- Investigating illegal dumping and non-permitted dump sites.

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

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

For this planning document, a SEPA checklist has been completed and is included as Appendix G.

Applicants applying for new solid waste permits within Klickitat County will notify the Health Department. The applicant will submit a permit application and a SEPA checklist to the Health Department which forwards such applications to SWD for review and comment.

The Health Department will forward such findings and comments along with the SEPA checklist and permit application, on to the Klickitat County Board of Health. Final approval or disapproval of the application shall rest with the Health Department, which shall issue its approval/disapproval of the application within 90 days after its receipt pursuant to RCW 70A.205.

12.2.5 Washington State Department of Ecology

RCW 70A.205 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 health departments, depending on the specific activity and local preferences, but Ecology issues permits for land application of biosolids.

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

The Model Litter Control and Recycling Act (RCW 70A.200.060) 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 70A.300), 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 LSWFA Grants program administered by Ecology’s Solid Waste and Financial Assurance Program. The state rule that governs this program is WAC 173-312 – Local Solid Waste Financial Assistance.

12.2.6 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 RCW 81.77. 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, Klickitat 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 (RCW 81.80), although their oversight is limited to requiring a permit (at \$100 per year) 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 H) prepared according to the *WUTC Cost Assessment Guidelines for Local Solid Waste Management Planning* (WUTC 2001). RCW 70A.205 grants the WUTC 45 days to review the plan’s impact on solid waste collection rates charged by solid waste collection companies regulated under RCW 81.77, and to advise Klickitat County and Ecology of the probable effects of the Plan’s recommendations on those rates.

12.2.7 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 U.S.C. 6901-6987), is the primary body of legislation addressing solid waste. RCRA Subtitle D 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 provide that solid waste is handled in an environmentally-sound manner.

12.3 Status of Previous Recommendations

Status of recommendations made by the 2013 Plan are presented in Appendix D.

12.4 Alternatives and Evaluations

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

12.4.1 Long-Term Funding Needs

Financial resources are necessary to provide for the continuation of recycling and hazardous waste diversion and education programs 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 are currently reliant on the LWSFA funding and the fee assessed under the Agreement with RS. The LWSFA grant funding has been decreased over the past few biennium. The cities do not currently contribute towards the 25 percent match required to receive LWSFA grant funding. Additional funding options (grouped by category) and the associated implementation entity are provided on Table 12-2.

Table 12-2. Potential Funding Methods for Solid Waste Management

Possible Funding Methods	Potential Implementation Entity			
	City	County	State	Private Sector
User Fees, Rates, Surcharges				
1. Cost-of-Service-Based Rates	X	X		X
2. Other Volume-Based Rates	X			



Possible Funding Methods	Potential Implementation Entity			
	City	County	State	Private Sector
3. Fixed Per-Customer Service Rates	X			X
4. Collection Rate Surcharges	X			
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 Publics Works Trust Fund, was established by C 43.155 to be used by the Public Works Board to finance local government infrastructure loans.

12.4.2 Staffing

Adequate funding should be provided to increase staff at county levels as needed for the primary responsibility for solid waste management and to monitor, permit and enforce solid waste facilities and programs.

12.4.3 Permit Review

The SWAC should be included in the review of new solid waste facility permit requests within Klickitat County, although final approval shall continue to reside with the jurisdictional Health Department. Such permit requests, after review by the SWAC, will be forwarded to the Health Department with comments. This review will check for adherence to this Plan and RCW 70A.205.

12.5 Recommended Actions

The following recommendations are made for administration and enforcement by Klickitat County:

- AE1) Consider pursuing some of the additional funding strategies listed in Table 12-2 that can be implemented by Klickitat County directly and independently from other alternatives.
- AE2) Provide adequate funding to maintain or increase staff at county levels, as needed.
- AE3) Include the SWAC in the review of new solid waste facility permit requests.

13 Implementation Plan

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

13.1 Recommended Strategies

The recommendations made in previous chapters of this Plan are repeated below for convenient reference, as later sections of this chapter discuss costs and implementation responsibilities. More details about specific recommendations can be found in the respective chapters.

Specific information regarding budget for recommendations may be found in Table 13-1.

CHAPTER 3: WASTE REDUCTION, RECYCLING AND EDUCATION

Chapter 3 discusses existing programs and provides recommendations for three related topics: waste reduction, recycling and education. The following recommendations are proposed:

- WWR1) Adopt the updated list of designated materials (Table 3-2) and maintain it through periodic review and updates.
- WWR2) Update the Model Rural Recycling Program Plan.
- WWR3) Incorporate and expand the education and promotion program.
- WWR4) Continue to provide support for recycling at public events.
- WWR5) Consider converting the curbside recycling collection program to a cart based system.

Klickitat County would take the lead in implementing these recommendations. Recommendation WWR2 and WWR5 would be implemented cooperatively between Klickitat County and RS with funding from RS.

CHAPTER 4: ORGANICS

Chapter 4 discusses existing programs and provides recommendations related to organics management. The following recommendations are being proposed for Organics programs:

- O1) Continue to develop and distribute educational materials related to organics management as programs are established and implemented.
- O2) Consider developing a pilot yard debris collection and composting program to assess public interest and participation.
- O3) Monitor the pilot food waste collection program for participation and customer satisfaction and consider expanding the program as appropriate.



- O4) Consider developing a Christmas tree recycling pilot program to assess public interest and participation.

Klickitat County would take the lead in implementing and funding these recommendations.

CHAPTER 5: SOLID WASTE COLLECTION

Chapter 5 discusses existing solid waste collection services in unincorporated Klickitat County and in the participating cities and towns. These programs are operating satisfactorily. Chapter 5 concludes with the following recommendations:

- SWC1) Encourage the use of curbside collection services when possible and ensure collection services are available to all residents.
- SWC2) The County should continue to enforce solid waste regulations and laws to encourage the proper collection and disposal of solid waste.
- SWC3) Cities should continue to enforce compliance with their respective codes for solid waste collection and disposal.
- SWC4) Education efforts should be undertaken by both Klickitat County and the franchised haulers to provide information to customers that describe collection and recycling services availability.

The budget for these activities will consist primarily of continuation of the existing funding.

CHAPTER 6: TRANSFER FACILITIES

Chapter 6 discusses existing transfer stations and drop box disposal systems and programs. The transfer system is working well. Chapter 6 outlines the following recommendations for implementation:

- TF1) Monitor population growth and tonnage and consider transfer facility expansion as necessary.
- TF2) Monitor waste importation tonnages and the current Agreement with Republic Services and consider intermodal facility expansion as needed.
- TF3) Annually review permits and the contract for compliance and potential transfer facility modifications or expansions.

Klickitat County would take the lead in implementing and funding these recommendations.

CHAPTER 7: WASTE IMPORT/EXPORT

Chapter 7 discusses the status of waste import to the RRL and potential export of Klickitat County waste. The Chapter concludes with the following recommendations:

- IE1) Importation of waste should continue in compliance with the Agreement.
- IE2) Continue to monitor compliance with the Agreement.
- IE3) Yakama Nation and Gorge Commission preferences regarding waste transportation through specific areas under their jurisdictions should be



implemented through permit conditions and should be monitored for compliance.

- IE4) Exportation will not be considered during this planning period.

Klickitat County has the primary authority for these recommendations in compliance with the Agreement between Klickitat County and RS. The budget for these activities consists primarily of continuation of the existing funding.

CHAPTER 8: DISPOSAL

Chapter 8 discusses the existing disposal system and programs. The disposal system is working well. Chapter 8 outlines the following recommendations for implementation:

- D1) Waste should continue to be disposed per the Agreement.
- D2) Continue to maintain, monitor and update the Agreement.
- D3) Ensure continued compliance with permits by monitoring, including retention of an inspector.

Klickitat County is the lead agency for these recommendations with funding primarily from existing funding.

CHAPTER 9: ENERGY RECOVERY

Chapter 9 discusses energy recovery options available to Klickitat County. The Chapter concludes with the following recommendation:

- ER1) Monitor developments and progress in waste processing and conversion technologies utilized and support the continued use of landfill gas to energy operations.

Klickitat County is the lead agency for this recommendation. No additional budget is necessary for this recommendation.

CHAPTER 10: MODERATE RISK WASTE

Chapter 10 provides an update of the Klickitat County Moderate Risk Waste Plan. The following recommendations are being proposed for MRW programs:

- MRW1) Enhance the public education and outreach program for handling of MRW waste for households and businesses as a cooperative effort.
- MRW2) Consider re-establishment of the used oil collection program at more transfer station and drop box sites.
- MRW3) Continue to coordinate the schedule and process for updating the MRW Plan with the solid waste management plan (as is the current practice).
- MRW4) If grant funding is reduced or eliminated, consider implementing a fee based program to accept business waste and setting aside a fraction of the “host fee” from the Agreement for the MRW program.
- MRW5) Update the MRW implementation plan, as appropriate, for review and approval by Klickitat County.



Klickitat County is the lead agency for these recommendations working cooperatively with RS in compliance with the Agreement for the update of the MRW implementation plan and education and outreach activities. The budget for these activities will consist primarily of continuation of the existing budget or reallocation of funds if grant funding is reduced.

CHAPTER 11: SPECIAL WASTES

Chapter 11 discusses the various materials considered “special wastes” because they pose somewhat elevated risks, require additional precautions, or special handling procedures. For the most part, special wastes can be handled by the existing MSW infrastructure and programs, but with a few additional considerations:

- SW1) Continue to dispose special wastes through a cooperative effort with Klickitat County, Republic Services and Ecology.
- SW2) Monitor federal and 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 debris.
- SW4) Partner with private organizations to promote recycling and reuse of C&D wastes and building materials.
- SW5) Develop an internal plan for handling disaster debris, in coordination with the Klickitat County Emergency Management Department.
- SW6) Consider adding an additional E-Waste collection site.

Klickitat County is the lead agency for these recommendations, and these are essentially ongoing activities that would be funded by continuing the existing budget with the exception of SW5. SW5 would require additional funding for implementation and is dependent upon other agencies and partners.

CHAPTER 12: ADMINISTRATION AND ENFORCEMENT

The administration and enforcement of the solid waste system is an activity shared among several parties, including the SWD, Health Department, cities and towns, and the private sector. The SWD and Health Department have the primary responsibility for these activities.

- AE1) Consider pursuing some of the additional funding strategies listed in Table 12-2 that can be implemented by Klickitat County directly and independently from other alternatives.
- AE2) Provide adequate funding to maintain or increase staff at county levels, as needed.
- AE3) Include the SWAC in the review of new solid waste facility permit requests.

Klickitat County is the lead agency for these recommendations so the additional costs are largely limited to a portion of staff time (existing staff). The budget for these activities

will consist primarily of continuing the existing budget plus additional amounts and/or reallocation of existing funds for new activities.

13.2 State Environmental Policy Act

Ecology requires the potential impacts of this Plan be evaluated according to SEPA process. The checklist has been prepared to fulfill that requirement and is included as Appendix G.

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.

Klickitat 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 I.

13.3 Estimated Additional Costs

Table 13-1 shows the approximate budget for Plan recommendations that incur additional costs, by Klickitat County, above and beyond current status quo costs and programs. “No Additional Costs” in Table 13-1 indicates Klickitat County is already performing the activity so it is covered by SWD budget or costs are covered by RS or CRD.

Table 13-1. Six-Year Implementation Budget for Additional Costs

Recommendation	Additional Cost by Implementation Year ¹					
	2020	2021	2022	2023	2024	2025
3. Waste Reduction, Recycling and Education						
WWR1) Adopt the updated list of designated materials (Table 3-2) and maintain it through periodic review and updates.	No Additional Costs					
WWR2) Update the Model Rural Recycling Program Plan.	No Additional Costs					
WWR3) Incorporate and expand the education and promotion program.	No Additional Costs					
WWR4) Continue to provide support for recycling at public events.	No Additional Costs					
WWR5) Consider converting the curbside recycling collection program to a cart based system.	No Additional Costs					



Table 13-1. Six-Year Implementation Budget for Additional Costs

Recommendation	Additional Cost by Implementation Year ¹					
	2020	2021	2022	2023	2024	2025
4. Organics						
O1) Continue to develop and distribute educational materials related to organics management as programs are established and implemented.	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
O2) Consider developing a pilot yard debris collection and composting program to assess public interest and participation.	-	-	\$5,000	\$5,000	\$5,000	\$5,000
O3) Monitor the pilot food waste collection program for participation and customer satisfaction and consider expanding the program as appropriate.	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
O4) Consider developing a Christmas tree recycling pilot program to assess public interest and participation.	-	\$3,000	-	-	-	-
5. Solid Waste Collection						
SWC1) Encourage the use of curbside collection services when possible and ensure collection services are available to all residents.	No Additional Costs					
SWC2) The County should continue to enforce solid waste regulations and laws to encourage the proper collection and disposal of solid waste.	No Additional Costs					
SWC3) Cities should continue to enforce compliance with their respective codes for solid waste collection and disposal.	No Additional Costs					
SWC4) Education efforts should be undertaken by both Klickitat County and the franchised haulers to provide information to customers that describe collection and recycling services availability.	No Additional Costs					
6. Transfer Facilities						
TF1) Monitor population growth and tonnage and consider transfer facility expansion as necessary.	No Additional Costs					
TF2) Monitor waste importation tonnages and the current Agreement with Republic Services and consider intermodal facility expansion as needed.	No Additional Costs					
TF3) Annually review permits and the contract for compliance and potential transfer facility modifications or expansions.	No Additional Costs					



Table 13-1. Six-Year Implementation Budget for Additional Costs

Recommendation	Additional Cost by Implementation Year ¹					
	2020	2021	2022	2023	2024	2025
7. Waste Import/Export						
IE1) Importation of waste should continue in compliance with the Agreement.	No Additional Costs					
IE2) Continue to monitor compliance with the Agreement.	No Additional Costs					
IE3) Yakama Nation and Gorge Commission preferences regarding waste transportation through specific areas under their jurisdictions should be implemented through permit conditions and should be monitored for compliance.	No Additional Costs					
IE4) Exportation will not be considered during this planning period.	No Additional Costs					
8. Disposal						
D1) Waste should continue to be disposed per the Agreement.	No Additional Costs					
D2) Continue to maintain, monitor and update the Agreement.	No Additional Costs					
D3) Ensure continued compliance with permits by monitoring including retention of an inspector.	No Additional Costs					
9. Energy Recovery						
ER1) Monitor developments and progress in waste processing and conversion technologies utilized and support the continued use of landfill gas to energy operations.	No Additional Costs					
10. Moderate Risk Waste						
MRW1) Enhance the public education and outreach program for handling of MRW waste for households and businesses as a cooperative effort.	\$2,500	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
MRW2) Consider re-establishment of the used oil collection program at more transfer station and drop box sites.	No Additional Costs					
MRW3) Continue to coordinate the schedule and process for updating the MRW Plan with the solid waste management plan (as is the current practice).	No Additional Costs					



Table 13-1. Six-Year Implementation Budget for Additional Costs

Recommendation	Additional Cost by Implementation Year ¹					
	2020	2021	2022	2023	2024	2025
MRW4) If grant funding is reduced or eliminated, consider implementing a fee based program to accept business waste and setting aside a fraction of the “host fee” from the Agreement for the MRW program.	No Additional Costs					
MRW5) Update the MRW implementation plan, as appropriate, for review and approval by Klickitat County.	No Additional Costs					
11. Special Wastes						
SW1) Continue to dispose special wastes through a cooperative effort with Klickitat County, Republic Services and Ecology.	No Additional Costs					
SW2) Monitor federal and state guidance regarding pharmaceutical waste and implement changes as needed to comply with statewide medicine take-back program.	No Additional Costs					
SW3) Promote proper reuse, recycling and disposal of C&D debris.	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
SW4) Partner with private organizations to promote recycling and reuse of C&D wastes and building materials.	No Additional Costs					
SW5) Develop an internal plan for handling disaster debris, in coordination with the Klickitat County Emergency Management Department.	-	-	\$25,000	-	-	-
SW6) Consider adding an additional E-Waste collection site.	No Additional Cost					
12. Administration/Enforcement						
AE1) Consider pursuing some of the additional funding strategies listed in Table 12-2 that can be implemented by Klickitat County directly and independently from other alternatives.	No Additional Costs					
AE2) Provide adequate funding to maintain or increase staff at county levels, as needed.	No Additional Costs					
AE3) Include the SWAC in the review of new solid waste facility permit requests.	No Additional Costs					
TOTAL	\$5,500	\$7,000	\$34,000	\$9,000	\$9,000	\$9,000

Notes:

1. Monetary figures are approximate and subject to update.



13.4 Six-Year Implementation Schedule

The proposed implementation schedule and primary responsibility is shown in Table 13-2. The SWAC will review and comment on proposed resolutions and ordinances prior to their adoption.

Table 13-2. Six-Year Implementation Schedule

Recommendation	Implementation Responsibility	Implementation Year					
		2020	2021	2022	2023	2024	2025
3. Waste Reduction, Recycling and Education							
WWR1) Adopt the updated list of designated materials (Table 3-2) and maintain it through periodic review and updates.	Klickitat County	Ongoing					
WWR2) Update the Model Rural Recycling Program Plan.	Klickitat County Republic Services	X	-	-	-	-	-
WWR3) Incorporate and expand the education and promotion program.	Klickitat County	Ongoing					
WWR4) Continue to provide support for recycling at public events.	Klickitat County	Ongoing					
WWR5) Consider converting the “blue bag” curbside recycling collection program to a cart based system.	Klickitat County Republic Services	X	X	X	-	-	-
4. Organics							
O1) Continue to develop and distribute educational materials related to organics management as programs are established and implemented.	Klickitat County	Ongoing					
O2) Consider developing a pilot yard debris collection and composting program to assess public interest and participation.	Klickitat County Cities and Towns	-	-	X	X	X	X
O3) Monitor the pilot food waste collection program for participation and customer satisfaction and consider expanding the program as appropriate.	Klickitat County	Ongoing					



Table 13-2. Six-Year Implementation Schedule

Recommendation	Implementation Responsibility	Implementation Year					
		2020	2021	2022	2023	2024	2025
O4) Consider developing a Christmas tree recycling pilot program to assess public interest and participation.	Klickitat County	-	X	-	-	-	-
5. Solid Waste Collection							
SWC1) Encourage the use of regular collection services when possible and ensure that collection services are available to all residents.	Klickitat County Cities and Towns	Ongoing					
SWC2) The Health Department should continue to enforce solid waste regulations and laws to encourage the proper collection and disposal of solid waste.	Klickitat County Health Department	Ongoing					
SWC3) Cities should continue to enforce compliance with their respective codes for solid waste collection and disposal.	Cities and Towns	Ongoing					
SWC4) Education efforts should be undertaken by both Klickitat County and the franchised haulers to provide information to customers that describe collection and recycling services availability.	Klickitat County Franchised Haulers	Ongoing					
6. Transfer Facilities							
TF1) Monitor population growth and tonnage and provide for transfer facility expansion as necessary.	Klickitat County	Ongoing					
TF2) Monitor waste importation tonnages and the current Agreement with Republic Services and consider intermodal facility expansion as needed.	Klickitat County	Ongoing					



Table 13-2. Six-Year Implementation Schedule

Recommendation	Implementation Responsibility	Implementation Year						
		2020	2021	2022	2023	2024	2025	
TF3) Annually review the contract for compliance and potential transfer facility modifications or expansions.	Klickitat County							Ongoing
7. Waste Import/Export								
IE1) Importation of waste to the Roosevelt Regional Landfill should continue in compliance with the Agreement.	Klickitat County Republic Services							Ongoing
IE2) Continue to monitor compliance with the Agreement.	Klickitat County Republic Services							Ongoing
IE3) Yakima Nation and Gorge Commission preferences regarding transportation of waste through specific areas under their jurisdictions should be implemented through permit conditions and should be monitored for compliance.	Klickitat County							Ongoing
IE4) Exportation will not be considered during this planning period.	Klickitat County							Ongoing
8. Disposal								
D1) Waste should continue to be disposed per the Agreement.	Klickitat County							Ongoing
D2) Continue to maintain, monitor and update the Agreement to ensure compliance including retention of an inspector.	Klickitat County							Ongoing
D3) Work cooperatively with the permitting authority for termination of post-closure care requirements at Horsethief Landfill.	Klickitat County Health Department							Ongoing



Table 13-2. Six-Year Implementation Schedule

Recommendation	Implementation Responsibility	Implementation Year					
		2020	2021	2022	2023	2024	2025
9. Energy Recovery							
ER1) Monitor developments and progress in waste processing and conversion technologies utilized and support the continued use of landfill gas to energy operations.	Klickitat County	Ongoing					
10. Moderate Risk Waste							
MRW1) Enhance the public education and outreach program for handling of MRW waste for households and SQG's as a cooperative effort.	Klickitat County Republic Services	X	X	X	X	X	X
MRW2) Consider re-establishment of the used oil collection program at more transfer station and drop box sites.	Klickitat County Republic Services	X	X	X	X	X	X
MRW3) Continue to coordinate the schedule and process for updating the MRW Plan with the solid waste management plan (as is the current practice).	Klickitat County	Ongoing					
MRW4) If grant funding is reduced or eliminated, consider implementing a fee based program to accept business waste and setting aside a fraction of the "host fee" from the Agreement for the MRW program.	Klickitat County	Ongoing					
MRW5) Update the MRW implementation plan, as appropriate, for review and approval by Klickitat County.	Klickitat County Republic Services	Ongoing					



Table 13-2. Six-Year Implementation Schedule

Recommendation	Implementation Responsibility	Implementation Year					
		2020	2021	2022	2023	2024	2025
11. Special Waste							
SW1) Continue to dispose special wastes through a cooperative effort with the Health Department, Republic Services and Ecology.	Klickitat County Health Department Republic Services Ecology	Ongoing					
SW2) Monitor federal and state guidance regarding pharmaceutical waste and implement changes as needed to comply with statewide medicine take-back program.	Klickitat County	Ongoing					
SW3) Promote proper reuse, recycling and disposal of C&D debris.	Klickitat County	Ongoing					
SW4) Partner with private organizations such as the Columbia Gorge Habitat for Humanity ReStore to promote recycling and reuse of C&D wastes and building materials.	Klickitat County	Ongoing					
SW5) Develop an internal plan for handling disaster debris, in coordination with the Klickitat County Emergency Management Department.	Klickitat County	-	-	X	-	-	-
12. Administration/Enforcement							
AE1) Consider pursuing some of the additional funding strategies listed in Table 12-2 that can be implemented by Klickitat County directly and independently from other alternatives.	Klickitat County	Ongoing					
AE2) Provide adequate funding to maintain or increase staff at county levels, as needed.	Klickitat County	Ongoing					
AE3) Include the SWAC in the review of new solid waste facility permit requests.	Klickitat County	Ongoing					



13.5 Twenty-Year Implementation Program

Solid waste management in Klickitat 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. Klickitat County's current solid waste management system is functioning effectively.

The current process of solid waste rates 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 12 provides a list of potential funding sources.

13.6 Draft Plan Review

Klickitat County provided the Plan for review to stakeholders. Comments were received from XXXXXX. Comments received and response to comments by Klickitat County are included as Appendix J.

13.7 Procedures for Amending the Plan

The Solid Waste Management-Reduction and Recycling Act (RCW 70A.205) requires local governments to maintain solid waste plans in current condition. Plans must be reviewed at least every five years and revised, if necessary. 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 expires.

Changes in the Plan may be initiated by Klickitat 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 SWD Director 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 SWD Director will investigate the basis for the petition and prepare a recommendation for the SWAC.

The petition will be referred to the SWAC for review and recommendation. The SWD Director will draft the proposed amendment together with the SWAC. Whether the proposed amendment has been initiated by Klickitat County or an outside party, the proposed amendment must be submitted to the legislative bodies of participating jurisdictions and Ecology for review and comment. Adoption of the proposed amendment will require the concurrence of affected jurisdictions.

The SWD Director may develop reasonable rules for submitting and processing proposed plan amendments, and may establish reasonable fees to investigate and process petitions. Administrative rulings of the SWD 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 member consensus.

Implicit in the development and adoption of this Plan is the understanding that in the future, Klickitat 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, Klickitat County staff 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 Klickitat County 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 its opinion.

Similar to the allowance for emergency action discussed above, Klickitat 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.



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Appendix A. Intergovernmental Agreements



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INTERGOVERNMENTAL AGREEMENT

REGARDING SOLID WASTE DISPOSAL

This Intergovernmental Agreement ("Agreement") regarding solid waste disposal is entered by and between Klickitat County and the City of Bingen, both municipal corporations of the State of Washington.

SECTION 1. RECITALS

1.1 The Klickitat County Comprehensive Solid Waste Management Plan (the "Comprehensive Solid Waste Management Plan") designates Klickitat County (the "County") as responsible for the selection of a method for the safe handling and disposal of Solid Waste within the County.

1.2 The County has designated or will designate a Vendor or Vendors to provide certain Solid Waste handling services for the disposal of Solid Waste generated within certain cities and towns and within unincorporated areas of the County.

1.3 In order to develop successfully the System for Solid Waste handling consistent with the obligation of cities and counties to provide for the safe and efficient handling and disposal of Solid Waste, it is necessary for Solid Waste generated in the County, including waste generated in the City of Bingen (the "City"), to be disposed of through the county System of Solid Waste Handling and it is necessary to authorize the County to designate disposal sites for the disposal of all Solid Waste generated within the City of Bingen (the "City"), to be disposed of through the County



System of Solid Waste Handling and it is necessary to authorize the County to designate disposal sites for the disposal of all Solid Waste generated within the City.

1.4 RCW 70A.205 authorizes the County to prepare a solid waste management plan for city and town solid waste management for inclusion in the County Solid Waste Management Plan.

1.5 RCW 70A.205 states, in part, that environmental and economic considerations in solving the state's solid waste management problems require strong consideration by local governments of regional solutions and intergovernmental cooperation.

1.6 It is the intent of this Agreement to designate the county as responsible for Solid Waste management planning, including the selection of a method for the safe handling and disposal of solid waste, reserving to the City full authority over collection, including collection of recyclable materials, transfer facilities, and transportation of City solid waste.

NOW, THEREFORE, Klickitat County and the City of Bingen understand and agree as follows:

SECTION 2. DEFINITIONS. For purposes of this Agreement, the following definitions shall apply.

2.1 "City" means the City of Bingen, Washington.

2.2 "Comprehensive Solid Waste Management Plan" means the Klickitat County Comprehensive Solid Waste Management Plan, as it may be amended from time to time.



2.3 "County" means Klickitat County, Washington.

2.4 "Recyclable materials" means recyclable materials as defined by RCW 70A.205, and the Comprehensive Solid Waste Management Plan.

2.5 "Solid Waste" means solid waste as defined by RCW 70A.205.

2.6 "Solid Waste Handling" means solid waste handling as defined by RCW 70A.205.

2.7 "Solid Waste Management" means solid waste management as defined by WAC 173-304-100(75).

2.8 "System" means all facilities for Solid Waste Handling owned, operated or provided for by the county, either directly or by contract with a Vendor, and all administrative activities related thereto. The term "System" includes all facilities or sites designated by the County for the disposal of Solid Waste.

2.9 "Vendor" means one or more private vendors with whom the County contracts or otherwise permits for the design, construction, ownership or operation of all or a part of the System.

SECTION 3. RESPONSIBILITY FOR SOLID WASTE DISPOSAL. For a period set forth in section 10 of this Agreement, the County shall be responsible for planning and providing for a System of Solid Waste Handling of all Solid Waste generated within unincorporated areas of the County and within the City to the extent provided in the Comprehensive Solid Waste Management



Plan. The County shall not be responsible for disposal of nor claim that this Agreement extends to Solid Waste generated within the City that has been eliminated through waste reduction or waste recycling activities of the City.

SECTION 4. COMPREHENSIVE PLAN

4.1 For the duration of this Agreement, the City shall participate by its representation on the County Solid Waste Advisory Committee in the Comprehensive Solid Waste Management Plan prepared and periodically reviewed and revised by the County pursuant to chapter 70A.205 RCW. The City shall be responsible for the cost (based on total population within the County) of Comprehensive Solid Waste Management Plan preparation and revision; provided, however, that the City shall not be responsible for payment to the county of expenses in excess of that amount credited to the City in Section 4.2, for preparation of the comprehensive Solid Waste Management Plan. For the duration of this Agreement, the City authorizes the County to include in the Comprehensive Solid Waste Management Plan provisions for the management of Solid Waste generated in the City and by this Agreement ratifies prior and current planning efforts.

4.2 The County has received \$15,000, to be made available to cities within the County for the participation in and evaluation of the Comprehensive Solid Waste Management Plan. The City's pro rata share (based on population of all cities within the County) of the \$15,000 is \$1,570. The County shall give credit to the City in the amount of \$1,570 against the City's obligations for participation in the preparation of the Comprehensive Solid Waste Management Plan.



4.3 The County shall credit all grant funds received by the County for current or future solid waste planning, and thereby reduce obligations of the County and City.

SECTION 5. CITY DESIGNATION OF COUNTY SYSTEM FOR SOLID WASTE DISPOSAL. In a resolution substantially in the form of Attachment A, authorizing and approving this Agreement, or as otherwise provided in the City ordinances, the City shall designate the County's system for the disposal of all Solid Waste generated within the corporate limits of the City, and shall authorize the County to designate a disposal site or sites for the disposal of all Solid Waste generated within the corporate limits of the City except for Solid Waste that is eliminated through waste reduction or waste recycling activities of the City; provided, however, that this Agreement shall not impair the rights of the City to permit or approve disposal sites or sites within the corporate limits of the City. This designation of the County System shall continue in full force and effect for the duration of this Agreement. The designation of the County in this section shall not reduce or otherwise affect the City's control over Solid Waste collection as permitted by applicable state law.

SECTION 6. ENFORCEMENT. The County shall be the entity primarily responsible for enforcement of laws and regulations requiring persons to dispose of Solid Waste at sites designated by the County. The City shall cooperate with the county to aid the county in its enforcement efforts. Provided, however, the City shall have the absolute discretion regarding enforcement of laws and regulations within the City. For the duration of this Agreement, the City shall maintain in effect an ordinance providing that any person that disposes of Solid Waste generated within the City at a location other than a



site designated by the County will be subject to civil penalties, and also that any person who knowingly disposes of such Solid Waste other than at a County-designated site will be guilty of a misdemeanor. To the extent legally possible, the County shall be responsible for bringing civil or criminal actions against persons violating state statutes, County or City ordinances, or administrative regulations of the State of Washington, County or a City relating to the disposal of Solid Waste at sites designated by the County. However, in instances in which the County lacks legal authority to bring a civil or criminal action for the enforcement of applicable laws or regulations, and the City possesses that authority, the City shall bring such civil or criminal action as requested in writing by the County. The County shall pay for all costs incurred by the City in bringing a civil or criminal action at the County's request for the enforcement of laws or regulations relating to the disposal of Solid Waste. Upon the request of the County, the City also shall take steps in accordance with applicable procedures to revoke licenses or franchises previously granted by the City to persons the County and the City determine to be violating laws relating to the disposal of Solid Waste, and the County shall indemnify the City in taking such action in accordance with Section 9 of this Agreement. However, incidental disposal of Solid Waste by individuals shall not constitute a civil or criminal violation under this agreement.

SECTION 7. WASTE REDUCTION AND RECYCLING. The City and the County agree to cooperate to achieve the priorities for Solid Waste Management set forth in the comprehensive Solid Waste Management Plan. In the event that the City elects to participate in the county's waste reduction and recycling program, the terms of the City's participation shall be subject to another or supplemental agreement.

SECTION 8. CONTRACTS WITH VENDORS; NO CITY OBLIGATION
TO REGIONAL LANDFILL OWNERS; FAVORED NATION.

8.1 The County may at its discretion enter into a contract or contracts with a Vendor or Vendors, including but not limited to the owner or operator of a regional landfill facility, which contract or contracts may provide for the payment by the County, or by persons disposing Solid Waste, of minimum periodic fees or a scale of fees in accordance with applicable law and contract. The City acknowledges that in entering into such an agreement or agreements with the Vendors, the County will rely on the Cities' designation of the County as the entity with responsibility for preparing and revising the Comprehensive Solid Waste Management Plan and for designating Solid Waste disposal sites under the terms of the Comprehensive Solid Waste Management Plan and this Agreement.

8.2 The City shall not be obligated, directly or indirectly, for the collection or delivery of any specified quantity of Solid Waste to a facility designated as a Solid Waste disposal site by the County. No contract between the County and a Vendor shall purport to or be deemed to create any general obligation or special fund or utility obligation of the City.

8.3 In contracting with a Vendor concerning solid waste handling systems, the County shall provide that the City shall not be charged (a) rates for transport of Solid Waste to a disposal site in excess of rates charged other cities or towns in the County; and (b) in the event of fees for Solid Waste disposal, fees in excess of fees provided for disposal of Solid Waste from the County or other cities or towns in the County.



SECTION 9. INDEMNIFICATIONS.

9.1 Except as provided below, the County shall indemnify and hold harmless, and shall have the right and duty to defend, the City, through the County's attorneys, against any and all claims arising out of the County's operations of the System, and the right to settle those claims, recognizing that all costs incurred by the County thereby are System costs that must be satisfied from disposal rates. In providing a defense for the City, the County shall exercise good faith in that defense or settlement so as to protect the City's interests. For purposes of this paragraph, "claims arising out of the County's operations" shall include claims arising out of the ownership, control or maintenance of the system, but shall not include the claims arising out of the City's Solid Waste Handling, or other activities under the control of the City.

9.2 In the event that the County acts to defend the City against a claim, the City shall cooperate with the County.

9.3 For purposes of this section, reference to the City and to the County shall be deemed to include the officers and employees of any party, acting within the scope of their authority.

SECTION 10. DURATION. This Agreement shall continue to be in full force and effect for eight (8) years from the date of this Agreement, (the "initial period"), unless terminated as described in the following paragraph. Following the initial period, the Agreement shall continue from year-to-year unless twelve (12) months written notice of termination is given by the party seeking to terminate the Agreement.



SECTION 11. AMENDMENT, SUPPLEMENTATION OR TERMINATION. This Agreement may be amended, supplemented or terminated upon the agreement of the County and the City. Any amendment, supplement or termination shall be in writing, signed by the chief executives of the County and the City, and authorized by official action of the County and City. No amendment, supplementation or termination shall be adopted or put into effect if it impairs any obligation of the County to a Vendor or any obligation to owners of bonds issued to finance the County system.

SECTION 12. MISCELLANEOUS.

12.1 No waiver by any party of any term or condition of this Agreement shall be deemed or construed to constitute a waiver of any other term or condition or of any subsequent breach whether of the same or of a different provision of this Agreement.

12.2 The parties to this Agreement find and declare that this Agreement, and the ordinances passed pursuant hereto, are to provide for the public health and safety and for the safe and efficient disposal of Solid Waste generated in the City and in unincorporated areas of the County. This Agreement is not entered into with the intent that it shall benefit any other entity or person, and no other such person or entity shall be entitled to be treated as a third party beneficiary of this Agreement.

SECTION 13 TRANSFER STATIONS.

13.1 In the event of an agreement between County and a Vendor for vendor-owned transfer stations, County shall provide in such agreement for a transfer station for the disposal of solid waste within twenty-five 25 miles of the City.



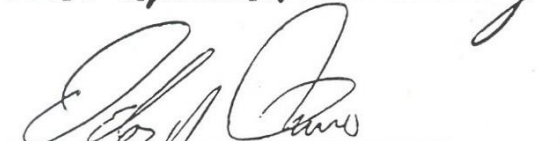
13.2 The City shall have access to the transfer station
twenty- four (24) hours a day, seven (7) days a week.


This Agreement has been executed, on one or more originals, by
the parties shown below and is dated as of

the 19th day of December, 1990.


Daryl Spalding, Commissioner

By 
Charles B. Long, Mayor


Delos Reno, Commissioner


Sverre Bakke, Commissioner

AMENDMENT TO THE INTERGOVERNMENTAL AGREEMENT REGARDING
SOLID WASTE DISPOSAL

THIS AMENDMENT is a written modification of the Intergovernmental Agreement Regarding Solid Waste Disposal, hereinafter called "the Agreement," of the same date and is in consideration of the mutual promises and obligations set forth in the Agreement and in this Amendment.

1. Recycling: The County shall, notwithstanding provisions to the contrary in the Agreement, provide recycling services to the city at the City's written request. Such service shall meet present and any future requirements for recycling services under state and local laws. Such service shall provide for the collection, transportation and disposal of recyclable materials. Any provisions of the Agreement inconsistent with this section are hereby deleted from the Agreement.

2. Transfer Station: Section 13.1 of the Agreement is deleted in its entirety and the following shall be inserted in place of the original Section 13.1 language:

The County shall require Vendor to provide a Vendor-owned transfer station for the disposal of solid waste. Such a station shall be within twenty-five (25) miles of the City. Said transfer station should have sufficient space and sufficient capacity to accommodate without delay the unencumbered delivery of residential and non-residential solid waste as well as construction/demolition debris by the city's hauler.

3. Duration: Section 10 of the Agreement is deleted in its entirety and the following shall be inserted in place of the original Section 10 language:



This Agreement shall continue to be in full force and effect for ten (10) years from the date of this Agreement (the "initial period"), unless terminated as described herein. Following the initial period, the Agreement shall continue from year-to-year unless twelve (12) months written notice of termination is given by the City to the County.

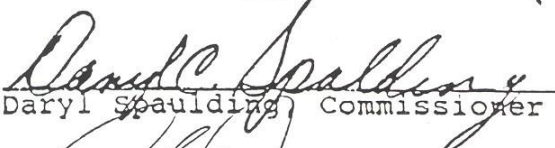
4. Revenue Sharing: The County shall make reasonable efforts to apply proceeds received by virtue of implementation of its solid waste plan and agreements with Vendor to reduce costs charged the City for the provision of general County services.

5. Enforcement: Section 6 of the Agreement is modified to provide that the city has the sole discretion in determining whether to bring civil or criminal actions to enforce laws and regulations relating to the disposal of solid waste and whether to take steps to revoke licenses or franchise for violations of the law regarding disposal of solid waste.

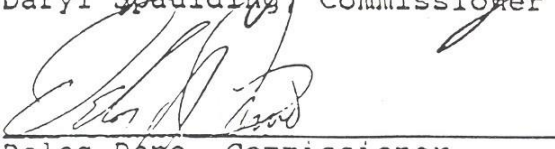
THIS AGREEMENT has been executed, on one or more originals, by the parties shown below and is dated this 19th day of December, 1990.

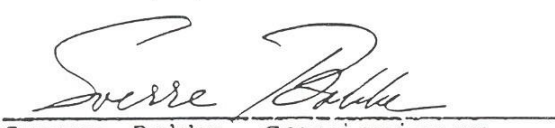
KLICKITAT COUNTY

CITY OF BINGEN


Daryl Spaulding, Commissioner


Charles B. Long, Mayor


Delos Reno, Commissioner


Sverre Bakke, Commissioner

C08112



INTERGOVERNMENTAL AGREEMENT

REGARDING SOLID WASTE DISPOSAL

This Intergovernmental Agreement ("Agreement") regarding solid waste disposal is entered by and between Klickitat County and the City of Goldendale, both municipal corporations of the State of Washington.

SECTION 1. RECITALS

1.1 The Klickitat County Comprehensive Solid Waste Management Plan (the "Comprehensive Solid waste Management Plan") designates Klickitat County (the "County") as responsible for the selection of a method for the safe handling and disposal of Solid Waste within the County.

1.2 The County has designated or will designate a Vendor or Vendors to provide certain Solid Waste handling services for the disposal of Solid Waste generated within certain cities and towns and within unincorporated areas of the County.

1.3 In order to develop successfully the System for Solid Waste handling consistent with the obligation of cities and counties to provide for the safe and efficient handling and disposal of Solid Waste, **it is** necessary for Solid waste generated in the County, including waste generated in the City of Goldendale (the "City"), to be disposed of through the County system of Solid Waste Handling and it is necessary to authorize the County to designate disposal sites for the disposal of all Solid Waste generated within the City.

1.4 RCW 70A.205 authorizes the County to prepare a solid waste management plan for city and town solid waste management for inclusion in the County Solid Waste Management Plan.

1.5 RCW 70A.205 states, **in part**, that environmental and economic considerations in solving the state 's solidwaste management problems require strong consideration by local governments of regional solutions and intergovernmental cooperation.

1.6 It is the intent of this Agreement to designate the County as responsible for the selection of a method for the safe handling and disposal of solid waste, reserving to the City full authority over collection, including collection of recyclable materials, transfer facilities, and transportation of City solid waste.

NOW, THEREFORE, Klickitat County and the City of Goldendale understand and agree as follows:

SECTION 2. DEFINITIONS. For purposes of this Agreement, the following definitions shall apply.



2.1 "City" means the City of Goldendale, Washington.

2.2 "Comprehensive Solid Waste Management Plan" means the Klickitat County Comprehensive Solid Waste Management Plan adopted by Klickitat County by Resolution No. 06489, as it may be amended from time to time.

2.3 "County" means Klickitat County, Washington, by RCW 70A.205, and the Comprehensive Solid Waste Management Plan.

2.5 "Solid Waste" means solid waste as defined by RCW 70A.205.

2.6 "Solid Waste Handling" means solid waste handling as defined by RCW 70A.205.

2.7 "Solid Waste Management" means solid waste management as defined by WAC 173-304-100(75).

2.8 "System" means all facilities for Solid Waste Handling owned, operated or provided for by the county, either directly or by contract with a Vendor, and all administrative activities related thereto. The term "System" includes all facilities or sites designated by the County for the disposal of Solid Waste.

2.9 "Vendor" means one or more private vendors with whom the County contracts or otherwise permits for the design, construction, ownership or operation of all or a part of the System.

SECTION 3. RESPONSIBILITY FOR SOLID WASTE DISPOSAL. For a period of twenty (20) years after the date of this Agreement, the County shall be responsible for providing for a System of Solid Waste Handling of all Solid Waste generated within unincorporated areas of the County and within the City to the extent provided in the Comprehensive Solid Waste Management Plan. The County shall not be responsible for disposal of nor claim that this Agreement extends to Solid Waste generated within the City that has been eliminated through waste reduction or waste recycling activities in conformity with the comprehensive Solid Waste Management Plan.

SECTION 4. COMPREHENSIVE PLAN. For the duration of this Agreement, the City shall participate in the Comprehensive Solid Waste Management Plan prepared and periodically reviewed and revised by the County pursuant to chapter 70A.205 RCW. For the duration of this Agreement, the City authorizes the County to include in the Comprehensive Solid Waste Management Plan provisions for the management of Solid Waste generated in the City.

SECTION 5. CITY DESIGNATION OF COUNTY SYSTEM FOR SOLID WASTE DISPOSAL. In an ordinance authorizing and approving this Agreement, the City shall designate the County's system for the disposal of all Solid Waste generated within the corporate limits of the City, and shall authorize the County to designate a disposal site or sites for the disposal of all Solid Waste generated within the corporate limits of the City except for Solid Waste that is eliminated through waste reduction or waste recycling activities under the comprehensive Solid Waste Management Plan;



provided, however that this Agreement shall not impair the rights of the City to permit or approve disposal sites or sites within the corporate limits of the City. This designation of the County System shall continue in full force and effect for a period of twenty (20) years after the date of this Agreement. The designation of the County **in** this section shall not reduce or otherwise affect the City's control over Solid Waste collection as permitted by applicable state law.

SECTION 6. ENFORCEMENT. The County shall be the entity primarily responsible for enforcement of laws and regulations requiring persons to dispose of Solid Waste at sites designated by the County. The City shall cooperate with the County to aid the County in its enforcement efforts. For the duration of this Agreement, the City shall maintain in effect, an ordinance, providing that any person that disposes of Solid Waste generated within the City at a location other than a site designated by the County will be subject to civil penalties, and also that any person who knowingly disposes of such Solid Waste other than at a County designated site will be guilty of a misdemeanor. To the extent legally possible, the County shall be responsible for bringing civil or criminal actions against persons violating regulations of the State of Washington or the County relating to the disposal of Solid Waste at sites designated by the County. However, in instances in which the County lacks legal authority to bring a civil or criminal action for the enforcement of applicable laws or regulations, and the City possesses that authority, the City shall bring such civil or criminal action as requested in writing by the County. The County shall pay for all costs incurred by the City in bringing a civil or criminal action at the County's request for the enforcement of laws or regulations relating to the disposal of Solid Waste. Upon the request of the County, the City also shall take steps in accordance with applicable procedures to revoke licenses or franchises previously granted by the City to persons the County and the City determine to be violating laws relating to the disposal of Solid Waste, and the County shall indemnify the City in taking such action in accordance with Section 9 of this Agreement.

SECTION 7. WASTE REDUCTION AND RECYCLING. The City and the County agree to cooperate to achieve the priorities for Solid Waste Management set forth in the Comprehensive Solid Waste Management Plan. In the event that the City elects to participate in the County's waste reduction and recycling program, the terms of the City's participation shall **be** subject to another or supplemental agreement.

SECTION 8. CONTRACTS WITH VENDORS; NO CITY OBLIGATION TO REGIONAL LANDFILL OWNERS.

8.1 The County may at its discretion enter into a contract or contracts with a Vendor or Vendors, including but not limited to the owner or operator of a regional landfill facility, which contract or contracts may provide for the payment by the County or by persons disposing Solid Waste, of minimum periodic fees or a scale of fees in accordance with applicable law and contract. The City acknowledges that in entering into such an agreement or agreements with the Vendors, the County will rely on the City's designation of the county as the entity with responsibility for preparing and revising the Comprehensive Solid Waste Management Plan and



for designating Solid Waste disposal sites under the terms of the Comprehensive Solid Waste Management Plan and this Agreement.

8.2 The City shall not be obligated, directly or indirectly, for the collection or delivery of any specified quantity of Solid Waste to a facility designated as a Solid Waste disposal site by the County. No contract between the County and a Vendor shall purport to or be deemed to create any general obligation or special fund or utility obligation of the City.

SECTION 9. INDEMNIFICATIONS.

9.1 Except as provided below, the county shall indemnify and hold harmless, and shall have the right and duty to defend, the City, through the County's attorneys, against any and all claims arising out of the County's operations of the System, and the right to settle those claims, recognizing that all costs incurred by the County thereby are System costs that must be satisfied from disposal rates. In providing a defense for the City, the County shall exercise good faith in that defense or settlement so as to protect the City's interests. For purposes of this paragraph, "claims arising out of the county's operations" shall include claims arising out of the ownership, control or maintenance of the system, but shall not include the claims arising out of the City's Solid Waste Handling, or other activities under the control of the City.

9.2 In the event that the County acts to defend the City against a claim, the City shall cooperate with the County.

9.3 For purposes of this section, reference to the City and to the County shall be deemed to include the officers and employees of any party, acting within the scope of their authority.

SECTION 10. DURATION. This Agreement shall continue to be in full force and effect for twenty (20) years from the date of this Agreement, unless terminated as described in the following paragraph.

SECTION 11. AMENDMENT, SUPPLEMENTATION OR TERMINATION. This Agreement may be amended, supplemented or terminated upon the agreement of the County and the City. Any amendment, supplement or termination shall be **in** writing, signed by the chief executives of the County and the City, and authorized by resolution or ordinance of the County and City. No amendment, supplementation or termination shall be adopted or put into effect if it impairs any obligation of the County to a Vendor or any obligation to owners of bonds issued to finance the County system.

SECTION 12. MISCELLANEOUS

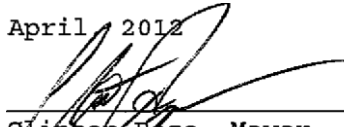
12.1 No waiver by any party of any term or condition of this Agreement shall be deemed or construed to constitute a waiver of any other term or condition or of any subsequent breach whether of the same or of a different provision of this Agreement.

12.2



12.3 The parties to this Agreement find and declare that this Agreement, and the ordinances passed pursuant hereto, are to provide for the public health and safety and for the safe and efficient disposal of Solid Waste generated in the City and in unincorporated areas of the County. This Agreement is not entered into with the intent that it shall benefit any other entity or person, and no other such person or entity shall be entitled to be treated as a third party beneficiary of this Agreement.

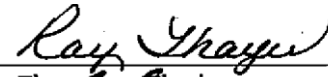
DATED this 1 day of April 2012



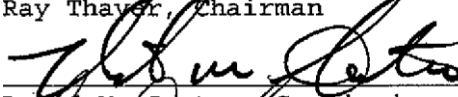
Clinton Baze, Mayor
City of Goldendale

DATED this 1 day of April, 2012.

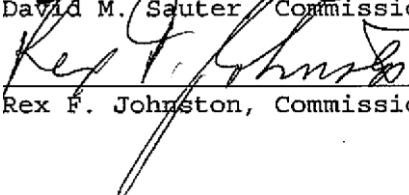
BOARD OF COUNTY COMMISSIONERS
Klickitat County, Washington



Ray Thayer, Chairman



David M. Sauter, Commissioner



Rex F. Johnston, Commissioner

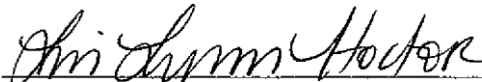
ATTEST:

Clerk of the Board



in and for the County of Klickitat,
State of Washington

Approved as to Form



Klickitat County Prosecuting Attorney

Klickitat County Prosecuting Attorney

INTERGOVERNMENTAL AGREEMENT

REGARDING SOLID WASTE DISPOSAL

This Intergovernmental Agreement ("Agreement") regarding solid waste disposal is entered by and between Klickitat County and the City of White Salmon, both municipal corporations of the State of Washington.

SECTION 1. RECITALS

1.1 The Klickitat County Comprehensive Solid Waste Management Plan (the "Comprehensive Solid Waste Management Plan") designates Klickitat County (the "County") as responsible for the selection of a method for the safe handling and disposal of Solid Waste within the County.

1.2 The County has designated or will designate a Vendor or Vendors to provide certain Solid Waste handling services for the disposal of Solid Waste generated within certain cities and towns and within unincorporated areas of the County.

1.3 In order to develop successfully the System for Solid Waste handling consistent with the obligation of cities and counties to provide for the safe and efficient handling and disposal of Solid Waste, it is necessary for Solid Waste generated in the County, including waste generated in the City of White Salmon (the "City"), to be disposed of through the county System of Solid Waste Handling and it is necessary to authorize the County to designate disposal sites for the disposal of all Solid Waste generated within the City.



1.4 RCW 70A.205 authorizes the County to prepare a solid waste management plan for city and town solid waste management for inclusion in the County Solid Waste Management Plan.

1.5 RCW 70A.205 states, in part, that environmental and economic considerations in solving the state's solid waste management problems require strong consideration by local governments of regional solutions and intergovernmental cooperation.

1.6 It is the intent of this Agreement to designate the county as responsible for Solid Waste management planning, including the selection of a method for the safe handling and disposal of solid waste, reserving to the City full authority over collection, including collection of recyclable materials, transfer facilities, and transportation of City solid waste.

NOW, THEREFORE, Klickitat County and the City of White Salmon understand and agree as follows:

SECTION 2. DEFINITIONS. For purposes of this Agreement, the following definitions shall apply.

2.1 "City" means the City of White Salmon, Washington.

2.2 "Comprehensive Solid Waste Management Plan" means the Klickitat County Comprehensive Solid Waste Management Plan, as it may be amended from time to time.

2.3 "County" means Klickitat County, Washington.

2.4 "Recyclable materials" means recyclable materials as defined by RCW 70A.205, and the Comprehensive Solid Waste Management Plan.



2.5 "Solid Waste" means solid waste as defined by RCW 70A.205.

2.6 "Solid Waste Handling" means solid waste handling as defined by RCW 170A.205.

2.7 "Solid Waste Management" means solid waste management as defined by WAC 173-304-100(75).

2.8 "System" means all facilities for Solid Waste Handling owned, operated or provided for by the county, either directly or by contract with a Vendor, and all administrative activities related thereto. The term "System" includes all facilities or sites designated by the County for the disposal of Solid Waste.

2.9 "Vendor" means one or more private vendors with whom the County contracts or otherwise permits for the design, construction, ownership or operation of all or a part of the System.

SECTION 3. RESPONSIBILITY FOR SOLID WASTE DISPOSAL. For a period set forth in section 10 of this Agreement, the County shall be responsible for providing for a System of Solid Waste Handling of all Solid Waste generated within unincorporated areas of the County and within the City to the extent provided in the Comprehensive Solid Waste Management Plan. The County shall not be responsible for disposal of nor claim that this Agreement extends to Solid Waste generated within the City that has been eliminated through waste reduction or waste recycling activities of the City.



SECTION 4. COMPREHENSIVE PLAN

4.1 For the duration of this Agreement, the City shall participate by its representation on the County Solid Waste Advisory Committee in the Comprehensive Solid Waste Management Plan prepared and periodically reviewed and revised by the County pursuant to chapter 70A.205 RCW. The City shall be responsible for the cost (based on total population within the County) of Comprehensive Solid Waste Management Plan preparation and revision; provided, however, that the City shall not be responsible for payment to the county of expenses in excess of that amount credited to the City in Section 4.2, for preparation of the comprehensive Solid Waste Management Plan. For the duration of this Agreement, the City authorizes the County to include in the Comprehensive Solid Waste Management Plan provisions for the management of Solid Waste generated in the City and by this Agreement ratifies prior and current planning efforts.

4.2 The County has received \$15,000, to be made available to cities within the County for the participation in and evaluation of the Comprehensive Solid Waste Management Plan. The City's pro rata share (based on population of all cities within the County) of the \$15,000 is \$4,595. The County shall give credit to the City in the amount of \$4,595 against the City's obligations for participation in the preparation of the Comprehensive Solid Waste Management Plan.

4.3 The County shall credit all grant funds received by the County for current or future solid waste planning, and thereby reduce obligations of the County and City.



SECTION 5. CITY DESIGNATION OF COUNTY SYSTEM FOR SOLID WASTE DISPOSAL. In a resolution substantially in the form of Attachment A, authorizing and approving this Agreement, or as otherwise provided in City ordinances, the City shall designate the County's system for the disposal of all Solid Waste generated within the corporate limits of the City, and shall authorize the County to designate a disposal site or sites for the disposal of all Solid Waste generated within the corporate limits of the City except for Solid Waste that is eliminated through waste reduction or waste recycling activities of the City; provided, however, that this Agreement shall not impair the rights of the City to permit or approve disposal sites or sites within the corporate limits of the City. This designation of the County System shall continue in full force and effect for the duration of this Agreement. The designation of the County in this section shall not reduce or otherwise affect the City's control over Solid Waste collection as permitted by applicable state law.

SECTION 6. ENFORCEMENT. The County shall be the entity primarily responsible for enforcement of laws and regulations requiring persons to dispose of Solid Waste at sites designated by the County. The City shall cooperate with the county to aid the county in its enforcement efforts. Provided, however, the City shall have the absolute discretion regarding enforcement of laws and regulations within the City. For the duration of this Agreement, the City shall maintain in effect ordinances, providing that any person that disposes of Solid Waste generated within the City at a location other than a site designated by the County will be subject to civil penalties, and also that any person who knowingly disposes of such Solid Waste other than at a County-designated site will be guilty of



a misdemeanor. To the extent legally possible, the County shall be responsible for bringing civil or criminal actions against persons violating state statutes, County or City ordinances, or administrative regulations of the State of Washington, County or a City relating to the disposal of Solid Waste at sites designated by the County. However, in instances in which the County lacks legal authority to bring a civil or criminal action for the enforcement of applicable laws or regulations, and the City possesses that authority, the City shall bring such civil or criminal action as requested in writing by the County. The County shall pay for all costs incurred by the City in bringing a civil or criminal action at the County's request for the enforcement of laws or regulations relating to the disposal of Solid Waste. Upon the request of the County, the City also shall take steps in accordance with applicable procedures to revoke licenses or franchises previously granted by the City to persons the County and the City determine to be violating laws relating to the disposal of Solid Waste, and the County shall indemnify the City in taking such action in accordance with Section 9 of this Agreement. However, incidental disposal of Solid Waste by individuals shall not constitute a civil or criminal violation under this agreement.

SECTION 7. WASTE REDUCTION AND RECYCLING. The City and the County agree to cooperate to achieve the priorities for Solid Waste Management set forth in the comprehensive Solid Waste Management Plan. In the event that the City elects to participate in the county's waste reduction and recycling program, the terms of the City's participation shall be subject to another or supplemental agreement.

SECTION 8. CONTRACTS WITH VENDORS; NO CITY OBLIGATION TO REGIONAL LANDFILL OWNERS; FAVORED NATION.



8.1 The County may at its discretion enter into a contract or contracts with a Vendor or Vendors, including but not limited to the owner or operator of a regional landfill facility, which contract or contracts may provide for the payment by the County, or by persons disposing Solid Waste, of minimum periodic fees or a scale of fees in accordance with applicable law and contract. The City acknowledges that in entering into such an agreement or agreements with the Vendors, the County will rely on the Cities' designation of the County as the entity with responsibility for preparing and revising the Comprehensive Solid Waste Management Plan and for designating Solid Waste disposal sites under the terms of the Comprehensive Solid Waste Management Plan and this Agreement.

8.2 The City shall not be obligated, directly or indirectly, for the collection or delivery of any specified quantity of Solid Waste to a facility designated as a Solid Waste disposal site by the County. No contract between the County and a Vendor shall purport to or be deemed to create any general obligation or special fund or utility obligation of the City.

8.3 In contracting with a Vendor concerning solid waste handling systems, the County shall provide that the City shall not be charged (a) rates for transport of Solid Waste to a disposal site in excess of rates charged other cities or towns in the County; and (b) in the event of fees for Solid Waste disposal, fees in excess of fees provided for disposal of Solid Waste from the County or other cities or towns in the County.

SECTION 9. INDEMNIFICATIONS.

9.1 Except as provided below, the County shall indemnify and hold harmless, and shall have the right and duty to defend, the



City, through the County's attorneys, against any and all claims arising out of the County's operations of the System, and the right to settle those claims, recognizing that all costs incurred by the County thereby are System costs that must be satisfied from disposal rates. In providing a defense for the City, the County shall exercise good faith in that defense or settlement so as to protect the City's interests. For purposes of this paragraph, "claims arising out of the County's operations" shall include claims arising out of the ownership, control or maintenance of the system, but shall not include the claims arising out of the City's Solid Waste Handling, or other activities under the control of the City.

9.2 In the event that the County acts to defend the City against a claim, the City shall cooperate with the County.

9.3 For purposes of this section, reference to the City and to the County shall be deemed to include the officers and employees of any party, acting within the scope of their authority.

SECTION 10. DURATION. This Agreement shall continue to be in full force and effect for eight (8) years from the date of this Agreement, (the "initial period"), unless terminated as described in the following paragraph. Following the initial period, the Agreement shall continue from year-to-year unless twelve (12) months written notice of termination is given by the party seeking to terminate the Agreement.

SECTION 11. AMENDMENT, SUPPLEMENTATION OR TERMINATION. This Agreement may be amended, supplemented or terminated upon the agreement of the County and the City. Any amendment, supplement or termination shall be in writing, signed by the chief executives of the County and the City, and authorized by



official action of the County and City. No amendment, supplementation or termination shall be adopted or put into effect if it impairs any obligation of the County to a Vendor or any obligation to owners of bonds issued to finance the County system.

SECTION 12. MISCELLANEOUS.

12.1 No waiver by any party of any term or condition of this Agreement shall be deemed or construed to constitute a waiver of any other term or condition or of any subsequent breach whether of the same or of a different provision of this Agreement.

12.2 The parties to this Agreement find and declare that this Agreement, and the ordinances passed pursuant hereto, are to provide for the public health and safety and for the safe and efficient disposal of Solid Waste generated in the City and in unincorporated areas of the County. This Agreement is not entered into with the intent that it shall benefit any other entity or person, and no other such person or entity shall be entitled to be treated as a third party beneficiary of this Agreement.

SECTION 13 TRANSFER STATIONS.

13.1 In the event of an agreement between County and a Vendor for vendor-owned transfer stations, County shall provide in such agreement for a transfer station for the disposal of solid waste within twenty-five 25 miles of the City.

13.2 The City shall have access to the transfer station twenty- four (24) hours a day, seven (7) days a week.



This Agreement has been executed, on one or more originals, by the parties shown below and is dated as of

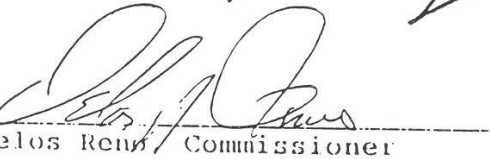
the 19th day of December, 1990.

KLICKITAT COUNTY

CITY OF WHITE SALMON


Daryl Spalding, Commissioner

BY 
FRANCIS H. GADDIS, Mayor


Delos Rens, Commissioner


Sveire Bakke, Commissioner

Appendix B. Resolutions of Adoption



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Resolutions of Adoption are not yet available.
These will be included once the Cities and
Klickitat County adopt the final version of the
Klickitat County Solid Waste and Moderate Risk
Waste Management Plan



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Appendix C. SWAC ByLaws



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**KLICKITAT COUNTY
SOLID WASTE ADVISORY COMMITTEE
BYLAWS AND POLICY PROCEDURE**

I. STATEMENT OF PURPOSE

The Klickitat County solid Waste Advisory Committee (SWAC) has been appointed by the Board of County Commissioners in accordance with Chapter 70A.205 R.C.W. The statute requires the SWAC to “assist in the development of solid waste handling programs and policies concerning solid waste handling and disposal, and review and comment on proposed rules, policies or ordinances prior to their adoption...” These bylaws will become a part of the county Solid Waste Plan by reference and will define the SWAC function and rules.

The committee has been appointed to review solid waste program issues and arrive at a cooperative point of consensus to recommend appropriate public policy to the legislative authority of the county in an advisory capacity.

II. CONDUCT OF MEETINGS

1. Roberts Rules of Order, Newly Revised. The parliamentary rules known as the current edition of Roberts Rules of Order, Newly Revised shall apply to and govern the procedures of all meetings of the committee.
2. Table Motions in Order to Precedence. The listing of motions entitled Table of Motions in Order of Precedence, which is excerpted from the most current edition of Roberts Rules of Order, Newly Revised shall be a guide to procedure at all meetings of the Committee, but in case of dispute, the current edition of Roberts Rules of Order, Newly Revised, shall prevail.
3. Speakers addressing the Chair. Any person wishing to address the Chair (e.g. a member of the committee, or the audience) shall first address the Chair and state name and representation, if any, and enter such information into the minutes.
4. Conflict of Interest and Appearance of Fairness. Any member of the Solid Waste Advisory Committee who in his/her opinion has a personal interest in any matter(s) before the committee that would tend to prejudice his/her recommendations to the Board of County Commissioners shall indicate such interest. In the event of a conflict, he/she shall remove himself/herself from the proceedings until a vote is taken or consensus reached on the item.

III. MEETINGS

1. Official Action. The Committee shall adopt no recommendation, except in a meeting open to the public and then only at a meeting, the date of which public notice has been given by notifying press and radio in the County, and by such other reasonable means as may now or hereafter be provided.
2. Regular Meeting.
Regular meeting schedules shall be established by majority vote of the committee.
3. Special Meetings. The chairman, or in his/her absence the acting chairman, may call a Special Meeting for one of more specific purposes, provided that proper notice is given describing such purpose or purposes to the committee members and the media. The chairman, acting chairman, or staff secretary, shall notify each committee member and the media in the county at least twenty-four hours prior to the time scheduled for the Special Meeting.
4. Public Hearings. Public Hearings of the SWAC may be called by the Board of Commissioners for the purpose of public input on policy and planning decisions.
5. Public Access. All meetings shall be open to the public. Provision shall be made for public comment at each meeting. Approved meeting minutes shall be available to the public on request. Meeting minutes shall be approved by a majority vote of committee members present.
6. Quorum. A regular or special meeting, or a public hearing, shall be called to order only when 40% of the appointed committee members are in attendance by the announced time for such meeting. Should a quorum not be in attendance within a period of twenty minutes after the announced time for the meeting or public hearing, no meeting shall commence. The agenda published for the cancelled meeting shall be placed at the head of the agenda for the next regular meeting, special meeting or public hearing. If a meeting is opened with a quorum, action can be taken even if a quorum is lacking as a result of members excusing themselves under the Appearance of Fairness Doctrine. This allows action to be taken and prevents a minority vote group's control by excusing themselves so that a vote cannot be taken.

IV. CHAIRMAN AND ACTING CHAIRMAN

1. Chairman: Selection and Term of Office. The committee, by majority vote at the beginning of the first official meeting of each calendar year, shall select from its members one to act as chairman for the calendar year.
2. Chairman: Duties. The chairman, or in his/her absence the acting chairman, shall preside at all meetings. The chairman shall have the authority to call for special meetings and shall be considered the titular head of the committee. The chairman shall



represent, or select from the committee or staff a designee, to represent the committee at meetings of the County Commissioners and at other official or unofficial functions.

3. Acting Chairman: Selection and Term of Office. The committee, by majority vote following election of a chairman, shall at the first official meeting of each calendar year, select by majority vote an acting chairman who shall assume the duties of chairman in the elected chairman's absence. When both the chairman and acting chairman are absent, the committee shall elect by majority vote a temporary acting chairman who shall assume the duties of chairman until the return of the chairman or acting chairman.
4. Removal of Chairman or Acting Chairman. The chairman or acting chairman may be removed at any time by the vote of the majority members of the committee, provided that such a vote shall be held at an official meeting and that within ten days of such meeting, the committee shall present to the County Commissioners the minutes stating the cause or causes for such removal. The committee shall elect a replacement by the end of the official meeting following the official meeting at which the removal vote was held.

V. SECRETARY

1. Selection. The Solid Waste Director or his/her designee shall act as secretary to the committee.
2. Duties.
 - A. The secretary shall be responsible for notice to the press and radio of all meetings and public hearings.
 - B. The secretary will mail to each member an agenda and copies of materials pertinent to the agenda, and materials requested by the chairman at least two weeks prior to each regular meeting.
 - C. The secretary shall furnish each member a copy of the minutes of the preceding meeting at least two days prior to each regular meeting.
 - D. When requested by the chairman, the secretary shall notify specific interested parties of meetings and public hearing, whose notice is not required by ordinance, statute, or other requirement.
 - E. The secretary, or his/her appointee, shall be responsible for recording and keeping the minutes of all official action of the committee.
 - F. The secretary shall be the representative of the County Solid Waste Department staff and shall be the staff advisor to the committee.
 - G. The secretary shall prepare or cause to be prepared special reports, information surveys, study projects, or similar reports requested by the chairman.



VI. MEMBERSHIP AND TERMS

1. Membership. The Solid Waste Advisory Committee shall consist of a minimum of nine (9) members appointed by the Board of County Commissioners. If possible, the mix of the members shall represent a balance of interest among the following groups:

- School District
- Goldendale
- White Salmon
- Bingen
- Bickleton/Roosevelt Area
- Dallesport/Murdock Area
- Environmental Group
- Waste Management Industry
- Business
- General Public
- At-Large

Members shall provide on-going public input, coordination, and information exchange between groups.

2. SWAC Member Alternates. Within 60 days of appointment each SWAC Member may submit the name of an alternate in the case of his/her absence. In order to appoint an alternate, each regular SWAC member shall send a letter to the Solid Waste Director stating name, address, and home or work telephone number of the alternate. The alternate will get all mailings and notices that the member receives. The alternate may vote in the member's place on all issues when the member is absent. When a regular member cannot attend, it is his/her responsibility to notify the alternate and the secretary.
3. Ex-Officio Members. The Klickitat County Board of County Commissioners may appoint non-voting ex-officio members to the SWAC, who will serve at the Board's discretion.
4. Attendance. Members of the committee are needed to advise on matters of public policy formulation and their regular attendance is essential. Therefore, the Board of County Commissioners may replace a member if three (3) consecutive meetings are missed.
5. Terms of Members. Members of the committee shall serve a term of three (3) years or until their successor is appointed
6. Vacancies. Vacancies shall be filled for the remainder of the term of the vacant position in the manner described in the initial appointment.



7. Compensation. Members of the committee shall serve without compensation. Meals, mileage, and lodging will be paid for meetings, workshops and other related activities subject to County Guidelines.

VII. TOPICS OF REVIEW

1. County Solid Waste Plan. Formulation of the plan, including recommendations, amendments, and addenda to the Plan.
2. Moderate Risk Waste Plan. Formulation of the Plan, including recommendations, amendments, and addenda to the Plan.
3. Legislative Proposals. Regulations proposed for adoption by the Board of Health and by the Board of County Commissioners affecting solid waste management and related issues may be assigned to the committee for review and comment prior to their adoption.
4. Recycling. Issues regarding recycling, collection, and disposal recommendations.
5. Other Issues. Additional questions pertaining to Klickitat County's waste management program may be addressed to the committee by the Board of Commissioners as deemed appropriate.

VIII. WAIVER OF THE RULES

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

The motion for the procedure to be waived or modified must be proposed at one meeting and voted on at the next regular session. The waiver or modification is subject to the applicable laws, resolutions, ordinances, and the County Commissioners.



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Appendix D. Status of Recommendations



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Status of 2013 Solid Waste Management Plan Recommendations

Recommendations	Status
Waste Reduction	
Education and Public Awareness	
The primary efforts of the County will be to promote existing programs, facilities and other opportunities for waste reduction, including programs that reduce the volume and/or toxicity of hazardous wastes.	Ongoing
The cities, towns and Republic Services will assist the County by, at a minimum, including waste reduction messages in information provided to their residents or customers at least annually.	Ongoing
Distribution of waste reduction brochures will be conducted contingent on the availability of funds and other resources.	Ongoing
An office waste minimization program will be implemented, or existing efforts by government and private entities will be promoted, contingent on the availability of funds and other resources.	Ongoing
Businesses will be encouraged, through brochures or waste consultations (conducted by Republic Services upon request from the business), to consider evaluating their processes and policies that affect waste generation.	Ongoing
Wherever possible, waste reduction education efforts will be combined with education and public awareness efforts for recycling.	Ongoing
The Model Recycling Plan should be fully implemented, including speakers, brochures, and radio ads.	Ongoing
Grants and state-sponsored education programs should also be pursued.	Ongoing
The County recycling coordinator will work with the designated staff of the landfill contractor to develop and implement complementary waste reduction education and public awareness activities of the county and the landfill contractor.	Ongoing
Backyard Composting	
County staff will conduct workshops on yard debris and food waste composting. Backyard composting of yard debris and food scraps will be promoted by the County, with assistance from the cities, towns, and Republic Services as appropriate.	Ongoing
The County recycling coordinator will work with the designated staff of the landfill contractor to develop and implement complementary composting education and public awareness activities of the County and the landfill contractor.	Ongoing
Government Programs	
Government waste reduction activities will be encouraged and promoted.	Ongoing
Incentive/Disincentive Based Programs	
Klickitat County will support state policies and legislation that provide incentives through tax credits, variable collection rates, and product labeling.	Ongoing
Disincentives and mandatory measures (such as disposal bans) will be used as a last resort effort to increase waste reduction.	Ongoing
Waste Exchanges	
Waste exchange information will be made available to businesses.	Ongoing
Re-use organizations and programs will be promoted.	Ongoing



Status of 2013 Solid Waste Management Plan Recommendations

Recommendations	Status
Program Evaluation	
The effectiveness of waste reduction programs and activities will be reviewed annually.	Ongoing
Waste reduction efforts will be modified as necessary on an ongoing basis.	Ongoing
Recycling	
Residential Recyclable Materials	
Continue the curbside recycling program.	Ongoing
Maintain a list of materials to be targeted for curbside recycling.	Ongoing
Collect metals, glass, white goods, and other specified materials separately at the transfer stations.	Ongoing
Maintain commingled status for other targeted recyclables.	Ongoing
Increase participation in the curbside recycling program.	Ongoing
Buy-Back Centers	
Continue to encourage community groups to collect recyclables as a fundraising activity (see also Community Group Recycling, below).	Ongoing
Drop-Off Centers	
Increase drop-off locations.	Not Implemented
Investigate possible community group involvement for selected drop-off sites.	Ongoing
Community Group Recycling	
Encourage cooperation with buy-back centers.	Ongoing
Continue and expand support for community cleanup events.	Ongoing
Small Recycling Collectors	
Encourage environmentally and neighborhood friendly recycling.	Ongoing
Consider impacts on recycling before passage of nuisance ordinances.	Ongoing
Business and Government Facility Recycling	
Include business and government facilities in the Model Rural Recycling Program Plan.	Ongoing
Establish list of targeted materials.	Implemented
Provide collection of targeted materials.	Implemented
Education and Awareness	
Continue and improve present programs.	Ongoing
Continue print and radio ads to promote participation in recycling.	Ongoing
Enhance speaking by county staff.	Implemented
Require Republic Services to furnish a person for support of education and awareness as agreed in the Model Recycling Plan (October 30, 1999).	Ongoing



Status of 2013 Solid Waste Management Plan Recommendations

Recommendations	Status
Cities should provide more outreach and other assistance in promoting recycling and related programs.	Ongoing
Develop uniform program for speakers.	Not Implemented
Install better signage on and near recycling drop boxes.	Ongoing
Recycling Program Evaluation	
Develop baseline data for existing tonnage and composition of recyclables collected through curbside and drop-off programs, and determine cost per ton for each program.	Not Implemented
Modify program as necessary.	Not Implemented
Solid Waste Collection	
The County should encourage the use of collection services when possible.	Ongoing
The County should not implement mandatory collection.	Ongoing
The County should develop and implement education efforts toward collection of solid waste.	Ongoing
Service-providers should provide information to new customers, and to existing customers at least annually, that describes the available waste collection and recycling services as well as other information as required by Chapter 480-70- 361 WAC.	Implemented
The County should maintain and make available a list of residential and commercial service-providers.	Implemented
The Klickitat County Health Department should continue to enforce solid waste regulations and laws to encourage the collection and proper disposal of solid waste in the County.	Implemented
All cities should continue to enforce compliance of city codes for garbage collection and disposal.	Implemented
The County should maintain the concepts and arrangements in the Agreement between Republic Services and Klickitat County to maintain free disposal of solid waste.	Implemented
Transfer Facilities	
Transfer Stations	
Monitor growth of geographic areas and scope of activity performed at transfer stations to allow time for construction of new transfer stations or expansion of existing facilities as warranted.	Ongoing
Rail Intermodal Facility	
Continue to monitor the existing operation for compliance with the Agreement between Klickitat County and Republic Services.	Ongoing
Monitor growth and consider additions to intermodal facilities to facilitate growth in imported waste quantities.	Ongoing
Barge Intermodal Facility	
Continue to monitor the potential need for a barge intermodal facility.	Ongoing
Waste Import and Export	
Continue importing waste.	Ongoing
Monitor compliance with the Agreement between the County and Republic Services.	Ongoing



Status of 2013 Solid Waste Management Plan Recommendations

Recommendations	Status
Agreements with exporters to a regional landfill in Klickitat County must include provisions that the exporters must have approved solid waste management plans that address exporting and include recycling and waste reduction prior to export. County and Ecology approved moderate risk waste management plans must also be included.	Ongoing
The Yakama Nation's and the Gorge Commission's preferences regarding trucking of wastes should be honored where the location of the exporting jurisdiction allows reasonable alternatives. These preferences should be implemented through conditions on permits issued with regard to this Plan.	Ongoing
Continue exportation of specific waste streams when no local disposal facilities exist.	Ongoing
Disposal	
Horsethief Landfill	
Maintain post-closure monitoring in conformance with rules and regulations.	Implemented
Maintain a dedicated fund for post-closure financing of required monitoring and site maintenance.	Ongoing
Maintain the security fence to ensure structural integrity of the closure cap.	Ongoing
Reduce monitoring when test results indicate stability has increased sufficiently.	Implemented
Landfilling of In-County Waste	
Continue to dispose of waste at Roosevelt Regional Landfill.	Ongoing
Monitor the solid waste industry trends that may require disposal at alternate sites.	Ongoing
Monitor annual in-County waste classifications and quantities.	Ongoing
Roosevelt Regional Landfill	
Continue to dispose of in-County waste at Roosevelt Regional Landfill.	Ongoing
Maintain a county inspector at the regional landfill.	Ongoing
Monitor the need for an additional county inspector.	Ongoing
Monitor compliance with the Agreement.	Ongoing
Encourage importation from other locations up to 5 million tons per year.	Ongoing
Mandate recycling at source locations.	Implemented
Continue to defer liability to the solid waste provider.	Ongoing
Minimize County risk.	Ongoing
Maximize County benefit.	Ongoing
Waste to Energy	
Allow energy recovery from incineration of used motor oil.	Ongoing
Continue the use of landfill gas to produce electricity.	Ongoing



Status of 2013 Solid Waste Management Plan Recommendations

Recommendations	Status
Organics	
Continue to promote and support onsite yard debris composting.	Ongoing
Encourage onsite composting of food wastes through vermiculture and backyard composting.	Ongoing
The cities, towns and Republic Services will assist the County in promoting backyard composting and, unless or until the wood waste chipping program is begun again, will also assist with promoting proper onsite handling of wood waste.	Ongoing
Centralized yard debris composting sites should be investigated.	Not Implemented
Municipal solid waste composting is not recommended.	Ongoing
Large-scale composting of yard and garden waste from in-County and imported sources should be considered as a possible addition to the Agreement between Klickitat County and Republic Services.	Ongoing
Other proposals or opportunities that may arise in the future for diverting organics, such as for curbside collection, should be considered based on their relative merits such as cost-effectiveness and other factors.	Ongoing
Placing containers for collecting yard debris and possibly other organics at locations where they can be monitored and a tipping fee can be collected, such as the transfer stations and possibly other locations, should be considered.	Not Implemented
Wood Waste Chipping	
Renew the drop-off chipping site program, when local economic conditions permit it.	Not Implemented
Improve existing sites.	Not Implemented
Improve marketing of the end-products.	Not Implemented
Administration and Enforcement	
Continue to administer the Agreement with Republic Services.	Ongoing
The County should retain the option to develop interlocal cooperative agreements with other jurisdictions for disposal of out-of-County solid waste.	Ongoing
SWAC be maintained as an ongoing committee that will meet at least quarterly continue and act in an advisory capacity to the Board of County Commissioners.	Implemented
Continued enforcement of health issues by the Klickitat County Health Department, land use issues by the Klickitat County Planning Department, and Agreement issues by the Klickitat County Solid Waste Department.	Implemented
The County should move toward the closure and cleanup of illegal dumps and should enact ordinances that provide a clearer method to prosecute those who persist in littering or illegal dumping.	Implemented
The County should continue under its contractual agreement with Republic Services. The Agreement includes an Administration Fee and a Quarterly Solid Waste Fee payable to the County. Specific fees are also assessed to support specified needs, including scholarships and County Tourism and Community Development.	Implemented



Status of 2013 Solid Waste Management Plan Recommendations

Recommendations	Status
<p>The County's solid waste program is funded by grants (primarily the Coordinated Prevention Grant funds administered by Ecology) and by fees paid by Republic Services. Should grants be reduced or discontinued, then planned activities will also need to be reduced or discontinued. Should revenue produced through the Agreement with Republic Services be reduced or discontinued, then activities will also need to be curtailed.</p>	<p>Acknowledged</p>

Appendix E. Model Rural Recycling Program Plan



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ALLIED WASTE INDUSTRIES
KLICKITAT COUNTY
MODEL RURAL RECYCLING PROGRAM PLAN

INTRODUCTION

Program Objectives

This Model Rural Recycling Program (MRRP) Plan describes the specific facilities, programs and support services that Allied Waste Industries (Allied) will provide within Klickitat County. The Plan also describes the how these facilities, programs, and support services will be coordinated with the waste reduction and recycling efforts sponsored by the County.

The objectives of the MRPP are to:

- Meet the requirements of Allied's June 29, 1998 agreement with Klickitat County that are related to waste reduction and recycling.
- Help make substantial progress toward achieving a 50% waste reduction and recycling rate within Klickitat County (when considered together with activities sponsored by the County, private businesses, and other organizations) by:
 - Improving the current programs offered by Allied;
 - Adding programs and expanding outreach efforts;
 - Integrating MRRP and County activities to reinforce outreach efforts and public messages.
- Collect, evaluate, and report information regarding the amount of material recycled and the level of participation in Allied's programs.
- Provide a framework for coordinating MRRP activities with the County, for testing and evaluating possible changes and enhancements to the MRRP, and for discussing any proposed contract changes related to the MRPP.

MRRP Plan Organization and Approach

This MRRP Plan is organized into the following sections, reflecting the major programs and activities that will be sponsored and supported by Allied:

- Residential Curbside Recycling
- Transfer Station/Drop Off Recycling
- Government and Business Waste Reduction and Recycling
- Agricultural Waste Reduction and Recycling



- Waste Reduction
- Moderate Risk Waste
- Special Events, Support for County Programs, and Public Outreach

Each section briefly describes current practices, identifies areas for improvement where applicable, and describes the programs and activities that will be implemented or supported by Allied.

This MRRP Plan includes a substantial commitment to public awareness and outreach in order to increase participation in the coordinated programs offered by Allied and by the County. This Plan also includes a program evaluation element so that Allied, together with the County, can work to improve waste reduction and recycling services.

Overall, this Plan covers activities that will be implemented and evaluated over the next three to four-years. The Plan calls for a major evaluation at the beginning of the fourth year, and a subsequent revision to the Plan based on the results of the evaluation and the success of the various pilot programs described herein. Appendix A to this Plan includes a detailed implementation schedule. In general, the following types of activities will be evaluated in each Plan Year.

- *Immediate Action.* Continue existing programs, develop tracking and information collection systems, initiate public outreach efforts, initiate signage and capital improvements at transfer stations, post curbside program sign-up information at transfer stations, and develop performance expectations/customer relations training for staff.
- *First Plan Year.* Continue existing programs, design and conduct baseline survey for curbside program, conduct survey of transfer station users, arrange for and initiate pilot programs for business recyclables collection and business waste reduction/recycling audits, arrange for drop-off pilots, rampup extensive public outreach efforts, and systematically collect and report information related to participation and the amount of recyclables collected.
- *Second and Third Plan Year.* Continue existing programs, implement all pilot programs, continue extensive public awareness and outreach efforts, continue systematic collection and reporting of information related to participation and the amount of recyclables collected, and conduct customer surveys.
- *Beginning of Fourth Plan Year.* Conduct independent evaluation of MRRP Plan programs, work with the County to make any major changes, and revise the MRRP Plan.

Allied will prepare an annual summary report to the County and the SWAC on the progress it has made in implementing the MRRP in the previous year. In addition to ongoing meetings and coordination, Allied will also hold an annual planning session with the County to plan joint activities for the following year.

RESIDENTIAL CURBSIDE RECYCLING PROGRAM

Current Practice

Allied currently provides curbside residential recycling collection to all County citizens and backhauls collected materials to the Rabanco Recycle Center in Seattle. Recyclables are currently collected using a bag-based system and a van-type collection vehicle that has been recently painted with information advertising the residential curbside program. Participants receive curbside collection service every two weeks. Although collection service is currently provided at no charge to County residents, under its contract with the County, Allied could charge up to \$1.00 per household per month for the service.

Overall, the results of this program have been less than expected, as reflected by the total amount of recyclables sent to the Rabanco Recycle Center in Seattle. Lack of ongoing public outreach likely contributes to low levels of participation. Some of the current program results may also be because participants either do not regularly participate or do not recycle as much as they could.

The bag-based collection system may also contribute to the relatively low amount of material collected. Information is not currently available to systematically evaluate these issues. Based on the number of complaints received by the County, poor customer relations likely contributes to the problem. Allied recognizes that good customer relations will be important to this program's success in the future.

Proposed Activities

Allied will continue to pay the costs of implementing residential curbside recyclables collection service throughout the County. In addition, Allied will increase promotion of this program and encourage signups and participation by:

- Developing a simple postage-free postcard for signups that can be used at various locations and special events in the County (Immediate Action).
- Posting promotional information and having sign-up postcards available at all of the transfer/recycling stations in the County (Immediate Action).
- Working with the County, businesses, and other organizations to try to have promotional posters and sign-up cards available at the following locations and events:
 - County fair
 - Earth day
 - Composting demonstrations and other education efforts sponsored by the County
 - Special solid waste/recyclables collection events
 - County offices
 - Schools and school events
 - Church events
 - Grocery stores

- Developing billing inserts promoting sign/up and ongoing participation in the program. In the first Plan Year, Allied will have its collection contractor send these billing inserts out semi-annually to its customers. In the first Plan Year, Allied will also work to make arrangements with the other collection companies in the County to include these inserts in bills to their customers.
- Because many residents do not receive garbage collection service, Allied will also arrange for, at a minimum, an annual mailing to all County residents encouraging them to signup and/or continue participating in the program. This mailing may be included along with the annual "How are We Doing?" recycling report sent out by the County.
- Developing and sponsoring media outreach, including: 1) designing and placing ads in local newspapers; and 2) developing and placing radio ads. As discussed under *Public Awareness and Outreach*, below, the annual number of media outreach efforts focused on the residential curbside program will vary depending on input from the County. In the initial Plan years, media outreach efforts will likely occur at least semi-annually. The content of the messages for these ads will also be developed in coordination with the County, but will likely:
 - Encourage signing up for the program
 - Include tips to improve participation such as information on which materials to recycle, why it is important to avoid contamination; and where to call for advice or customer service
- Modifying the curbside collection program, as warranted, in response to the baseline survey.
- Conducting a baseline survey of participants and non-participants to determine, among other things, how well the bag-based collection system is working. (See Customer Surveys and Evaluation, for the curbside program, below.)
- Conducting a survey of transfer station users to determine their level of participation in the curbside program. (See Customer Surveys and Evaluation, below.)
- Establishing performance expectations regarding customer relations for all personnel or subcontractors who will have contact with customers while implementing the program, and developing systems to track customer complaints. Allied management will monitor the results, consult with the County on any complaints received by the County, and take corrective action as needed. Allied will also take other action to improve customer service, such as providing a second person in the collection van to handle direct customer issues and complaints. (Immediate Action).

Program Evaluation

Allied will evaluate the Residential Curbside Collection Program on an ongoing basis in order to determine improvements that could be made to the program, including whether or not better results could potentially be achieved by replacing curbside collection in some areas with a system of recyclables drop-off stations. Allied recognizes that such a change would require a contract amendment with the County. Allied also recognizes such a change should only be considered after:

1) extensive efforts have been made to encourage and support curbside program participation; 2) the curbside program's effectiveness is then independently evaluated; and 3) other recycling options have been tested to determine their effectiveness.

Program evaluation activities will include:

- Collecting information on the level of participation in the program;
- Collecting information on the amount of material recycled through the program;
- Developing and implementing customer surveys;
- Evaluating the program's effectiveness;
- Making adjustments to the program to improve its effectiveness, recognizing that any major program changes will require approval by the County.

Data Collection and Tracking. Allied will direct its collection subcontractor to develop and implement systems to track participation in the residential curbside program. At a minimum, this information will include:

- Documenting information on current participants including their address, phone numbers, and whether or not they also receive garbage collection service (Immediate Action);
- Collecting this information from new customers when they sign up for recycling service (Immediate Action);
- Annually mapping this information, in a manner that is compatible with the County's mapping system, to help determine the level of participation in various geographic areas of the County; and
- Providing mailing and/or phone lists of program participants to those conducting surveys related to MRRP programs.

Allied will also develop estimates of the total amount of material (by weight) collected through the curbside program. This information will be developed by adjusting totals delivered to the Rabanco Recycling Center in Seattle as described in Appendix B. Allied will also conduct spot checks to help assess the relative proportions of the various materials that are being collected through the program. Information will be provided to the County on an annual basis.

Customer Surveys and Program Evaluation. Allied will arrange for customer surveys to support evaluation of the program. Survey questions will be developed in coordination with the County and with Allied. Surveys will include:

- In the first Plan Year, surveys of transfer/recycling station customers to, at a minimum, determine: 1) the extent to which transfer stations customers also bring in recyclables; 2) the extent to which transfer station customers participate in the curbside programs; 3) their interest in participating in the curbside program; and 4) their interest in use of drop-box facilities. Surveys will be conducted at the transfer stations and may be conducted by interview or by filling out a simple survey form.
- Early in the first Plan Year, a baseline survey of program participants and non-participants to, at a minimum, determine: 1) awareness of the program; 2) barriers to participation, including collection method; 3) frequency of recycling by program

participants; 4) types of materials that they most frequently recycle; 5) issues that are keeping them from participating more regularly; 6) suggestions for improvements. The survey will be conducted by an independent third party, selected in consultation with the County. Surveys will be conducted by mail or phone.

- Follow-up surveys in the second and third Plan years. If the number of households that have signed up by the third plan year is relatively high, the second follow-up survey may only focus on participants.

Survey results will be provided in a report to the County. Individual customer responses will be kept confidential.

At the end of the third Plan year of the program, as described in this MRRP Plan, Allied will arrange for an independent evaluation of its overall effectiveness. The scope of work for this evaluation and selection of the independent contractor will be developed in coordination with the County. The evaluation will consider:

- Information obtained through the surveys described above;
- Information on the number and location of participants;
- The amount of recyclables collected and any trends;
- The results of pilot programs (see below); and

Information from similar programs conducted in other areas. At a minimum, the evaluation will identify:

- The overall effectiveness of the program in various areas of the County and for various types of participants (Le. in remote areas of the County, for participants that do and do not have garbage collection service etc.);
- Ways to support ongoing customer participation;
- Customer service issues and recommendations to address them; and
- Modifications, such as adding to or changing the types of materials collected that may help the County better achieve its recycling goals.

TRANSFER STATION/DROP OFF RECYCLING

Current Practice

Allied currently provides facilities for the collection of recyclables at transfer/recycling stations in Goldendale, BZ corners, Dallesport, and at the Roosevelt Regional Landfill. The stations collect all materials collected through the curbside program. In addition, they collect glass, used oil, white goods, scrap metal, and household hazardous waste. The quality and convenience of recycling facilities varies among the stations. Allied does not currently provide for drop-off recycling at any locations besides the transfer stations.

Proposed Activities

Transfer/Recycling Stations. Allied will continue its existing programs at the transfer/recycling stations and will make the following improvements:

- Posting promotional materials and providing sign-up cards for the residential curbside program (Immediate Action);
- Improving current signage, especially at the BZ corners station, and
- modifying all signs to include the correct current County phone numbers (Immediate Action);
- Installing displays at each station showing the types of materials that are appropriate for the various recycling containers (such as the current display at Dallesport);
- Implementing other improvements at the BZ corners station, including: securing the white goods collection area, and consolidating recycling containers, and providing improved bins and signs.

Drop-Off Centers Pilot Program. In addition, Allied will test the effectiveness of drop off locations for recyclables. Materials that will be collected at the drop off sites will likely include one or more of the following materials: aluminum, tin, newspaper, cardboard, and glass.

Pilot tests will be likely conducted in the Bickleton/Cleveland area, in the Maryhill area, and at a grocery store or other convenient location in the White Salmon area. Allied will also investigate the possibility of developing a drop off facility in the Mercer Farms area if they proceed with developing a housing area. Prior to implementing the pilot tests, Allied will take the following actions:

- Identify potential locations, and make arrangements with property owners;
- Hold public meetings to increase awareness of the drop-off pilot test and to inform the public on those factors that will be considered in evaluating the effectiveness of the test (Le. amount of material collected by type, number of users and frequency of use, contamination, problems with vandalism);
- Select and install bins and signage. Signage will identify that the drop-off station is part of a pilot test and will provide numbers to call in the event containers are full or in the event of vandalism.

Allied will make all arrangements for picking up recyclables at no charge, and monitoring and reporting any problems with vandalism. During the initial months of operation, Allied will regularly monitor the drop-off collection bins in order to determine the appropriate frequency for pickups. Pilot tests will be conducted in the second and third Plan years and will last a minimum of one year before they are evaluated.

Program Evaluation

During the pilot tests, Allied will periodically collect information about the number of users and frequency of use. The methods used to collect this information will vary depending on the location of the drop-off station. At more heavily frequented locations (Le. Maryhill and White Salmon) observers may count the number of users in a given day. At less frequently used locations (Le. Bickleton), users of the drop-off station may be asked to fill out a card (asking how frequently they use the drop off and the types of materials they bring) and to leave it in a box provided at the drop off site.

At the end of the pilot test period, Allied will prepare a report to the County that, at a minimum, addresses:

- The amount (by weight) of materials collected;
- An approximation of the relative amounts of the various materials collected;
- Frequency of collection required; and
- Contamination, vandalism, and other problems;
- Customer feedback; and
- Interest in adding drop-off centers in other County locations.

The results of this report will be considered in the overall program evaluation described under *Residential Curbside Collection*, above.

GOVERNMENT AND BUSINESS WASTE REDUCTION AND RECYCLING

Current Practice

Allied currently collects the same recyclables from schools that it collects under its residential curbside program. Allied pays the cost of this service. Allied does not now provide any other recycling service to government institutions or businesses.

Proposed Activities

Allied will continue to offer recycling service to schools and will expand its government and business recycling efforts by:

- Improving collection services to schools by providing collection bins and posters to encourage recycling and, depending on input from individual schools, by collecting a wider range of materials and/or collecting them more frequently.
- Offering similar recycling services to County and Goldendale City offices and making the necessary arrangements to implement such a program, including providing collection bins and arranging for the frequency of collection. Materials that will be collected include cardboard, white paper, and aluminum.
- Providing model procurement ordinances and procedures to the County regarding purchase of recycled materials.
- Testing the effectiveness of business recycling by offering a pilot program in Goldendale, White Salmon, and Bingen. Allied will recruit and arrange for participation in the pilot program. Recruitment efforts will likely include media ads and phone interviews or meetings with local business owners. Recruitment efforts will also address the frequency of collection. It is expected that the materials collected will include white paper, and possibly cardboard and aluminum. Allied will offer this pilot program at a rate that offers a clear incentive to business owners to recycle, taking their costs for garbage collection into account. The rate may be adjusted depending on the level of interest in participating. Allied expects the pilot program to be implemented over a minimum two-year period, beginning in the second half of the first Plan year.



- Providing for business and government waste reduction and recycling audits. Audits will be offered two times each year and will include initial audits and follow-up visits to interested businesses. Allied will recruit participants using a variety of methods including media outreach, coordination with local business organizations, and phone interviews. Allied will arrange for, schedule visits by, and pay for the expenses of qualified auditors. Audits will be offered beginning in the second half of the first Plan Year.

Program Evaluation

In the fourth Plan Year, Allied will prepare a report to the County evaluating the effectiveness of the business recycling and audit programs. Information that will be provided will, at a minimum, include:

- Number and types of businesses participating;
- Amount of material collected;
- Results of customer interviews regarding the programs. Interviews will be conducted by an independent third party selected in consultation with the County. Interview questions will be developed in coordination with the County.

AGRICULTURAL WASTE REDUCTION AND RECYCLING

Current Practice

Allied does not now offer services directly focused on the agricultural sector.

Proposed Activities

Allied will:

- Provide speakers at grange meetings and other events who can address waste reduction and recycling in the agricultural sector, including techniques for reducing the toxicity of waste such as proper rinsing and disposal of pesticide containers, and the proper disposal of unused pesticides.
- Develop technical information, in coordination with the County extension agent, on subjects such as on-site composting of livestock and plant wastes.
- Work with the County to investigate the feasibility of supporting the development of/and or participation in regional programs aimed at agricultural users. (For example, EPA and the Agricultural Container Research Council are working at plastic pesticide, herbicide, and rodenticide containers. Other states are using recycled phone books for animal bedding).

MODERATE RISK WASTE

Current Practice

Allied currently supports County MRW efforts by providing for the collection of household used oil and household hazardous waste at transfer stations and providing for its collection and transport

by an appropriately licensed company. (Used oil is also collected at the regional landfill and by Bingen Garbage Service in White Salmon.) The County pays the actual costs of disposal. Allied also implements a waste acceptance and control program at the transfer stations and at the regional landfill.

Proposed Activities

Allied will expand its current efforts by:

- Developing information in coordination with the County and placing media ads to increase household awareness of proper HHW disposal.
- Developing and targeting informational materials to Small Quantity Generators (especially vehicle maintenance, construction, and logging) to increase their awareness of the importance of the appropriate disposal of this waste and to announce days when collection at reduced rates is available.
- Including methods for reducing or removing hazardous materials from the waste stream in business waste audits.

WASTE REDUCTION

Current Practice

Allied currently provides limited support to County waste reduction efforts by providing for MRW collection at transfer stations and by funding certain information mailings by the County.

Proposed Activities

Allied will expand its current efforts by:

- Providing support for radio spots to encourage participation in the County's on-site composting program and to provide other waste reduction "hints".
- Including waste reduction techniques in business audits.
- As requested, assisting the County's recycling coordinator with arranging for backyard composting demonstrations and distributing bins.
- Writing and printing "how to" informational brochures and posters on waste reduction techniques to be included in the County's annual mailing and distributed at County events to residents and businesses.
- Including speakers with expertise in waste reduction in the speakers list and speakers program described under *Special Events*, below.
- Providing for swap events as described under *Special Events*, below.
- Providing information on waste reduction to the Agricultural Sector, as described under *Agricultural Programs*, above.

SPECIAL EVENTS, SUPPORT FOR COUNTY PROGRAMS, AND PUBLIC OUTREACH

Current Practice

Allied currently provides support for County Programs by funding certain County mailings and attending certain special events with the County. The County currently takes the lead on programs with schools, on-site composting demonstrations, and the brush/wood chipping program.

Proposed Activities

Allied will expand its current efforts to support County programs and public outreach efforts by:

- Arranging for and staffing booths at Earth Day and the County Fair jointly with the County;
- Assisting the County with waste reduction and recycling awards programs for civic organizations, schools, and businesses, by arranging to have plaques or other awards made, providing financial assistance for awards as agreed to in the annual planning meeting with the County, and attending awards ceremonies.
- Providing a list of potential speakers for special presentations to schools and civic organizations and, at the request of the County, arranging for those speakers to make presentations, and paying for their expenses;
- Assisting the County with special collection events (ie. cleanup events) by providing recyclables bins and collection and staffing support including, if applicable, staffing for a "swap" (active salvage) area at these events.
- Planning for annual media outreach in coordination with the County. These outreach efforts will occur three to four times per year and will likely focus on: 1) the residential curbside program; 2) waste reduction, especially backyard composting; and 3) other topics to be developed with the County. Outreach activities will include radio and newspaper ads, press releases, and articles submitted to newspapers. All content will be reviewed and approved by or submitted directly by the County.
- Developing an information web site (non-interactive) that will be updated and managed on an ongoing basis by the County.
- Holding an annual planning session with the County to identify priorities for the upcoming year, develop the focus of annual media outreach, and discuss possible improvements to the overall program. To the extent that Allied, Rabanco, or Tri-County plans new vehicle or equipment purchases, Allied will discuss these purchases with the County in light of their possible implications for the recycling programs described in this MRRP Plan.
- Holding other meetings with the County on an ongoing basis to coordinate activities and discuss progress.

ADMINISTRATION

Reporting

In addition to the evaluation reports described above, Allied will provide semiannual reports to the County on the types and amount (by weight) of recyclables collected in Klickitat County. Reports will be based on the weights of materials received at the Rabanco Recycle Center in Seattle, plus an estimate of material collected at transfer stations that is not sent on to the Recycle Center (see Appendix B).

Staffing-Allied Recycling Coordinator

Allied will assign a recycling coordinator who will be responsible for planning and scheduling programs and events, ensuring that scheduled activities are being initiated and completed, and coordinating with the County's solid waste coordinator.

Schedule

Appendix A is a schedule of the activities identified in this Plan.



ACTIVITY	2000				2001				2002				
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Curbside Collection Program													
Collect recyclables from curbside participants	█	█	█	█	█	█	█	█	█	█	█	█	█
<i>Outreach Activities:</i>													
Develop postage free signup card and promotional posters	█												
Post promotional information at transfer stations	█												
Develop lists of organizations and schedules for posting promo materials	█	█											
Post promotional materials and signup cards at other locations			█	█			█	█			█	█	
Develop and mail billing inserts to Tri-County customers		█	█		█		█		█		█		█
Contact other haulers re arranging for billing inserts			█	█									
Billing mailed by other haulers					█		█		█		█		█
Mail promotional material with Annual Report		█				█				█			█
Design radio and print ads for curbside program		█	█			█				█			█
Place radio and print ads			█	█			█	█			█	█	
<i>Baseline Surveys and Data Collection:</i>													
Design database for tracking participation	█												
Confirm and enter information on current participants	█	█											
Enter information on new sign-ups	█	█	█	█	█	█	█	█	█	█	█	█	█
Prepare maps of participant locations		█				█				█			█
Design baseline survey questionnaire		█											
Develop baseline survey mailing/phone lists		█											
Field baseline survey		█											
Conduct transfer station surveys			█		█								
Report results on baseline survey/recommend program changes			█										
Implement program changes, as warranted				█	█	█							
Modify baseline survey questionnaire for follow-up surveys					█	█					█		



ACTIVITY	2000				2001				2002					
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Curbside Collection Program (cont.)														
<i>Baseline surveys and Data Collection (cont.)</i>														
Develop updated mailing/phone lists														
Field follow-up surveys														
Follow-up survey reports														
<i>Customer Relations:</i>														
Develop performance expectations re customer service														
Identify customer relations training programs														
Develop customer complaint tracking forms														
Review customer complaints														
Modify staff assignments as warranted														
Overall curbside program evaluation														
Transfer Station/Drop-off Recycling														
Continue collection of curbside recyclables, glass, HHW, used household oil, white goods, and scrap metal at transfer stations <i>Transfer Station</i>														
Post curbside promotional material and sign up cards														
Improve signage														
Install displays														
Install other improvements at BZ corners station														
<i>Drop-off Center Pilot Project:</i>														
Develop information on pilot program for site owner/managers														
Interview owners/managers of potential sites in White Salmon Area														
Identify potential sites in Bickleton area														
Hold meetings with Maryhill museum to identify potential sites, bin requirements, etc.														
Confirm sites and make arrangements with property owners														
Order bins and signs														
Develop forms for tracking/estimating quantity and types of material														



ACTIVITY	2000				2001				2002				
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Transfer Station/Drop-off Recycling (cont.)													
<i>Drop-off Pilot Tests (cont.):</i>													
Conduct public meetings along with County													
Install bins and signs, and monitor use to set collection frequency													
Conduct pilot test													
Collect information on # of users, frequency of use													
Interview site owner/managers and users													
Prepare Pilot Report													
Government and Business Waste Reduction and Recycling													
Continue collection of recyclables from schools													
<i>Improvements to Government Programs:</i>													
Conduct interviews with schools re recyclables collection service													
Modify programs to schools as warranted													
Develop information sheet to discuss government recycling with County and Goldendale City agencies													
Implement City/County Collection of recyclables													
Provide speakers list to schools (see outreach, below) and arrange for speakers for following year													
<i>Business Programs:</i>													
Recruit participants for recyclables collection													
Order bins/reschedule collection routes/add equipment, as required													
Develop forms for recording information on participants, amount collected													
Collect cardboard, white paper, and aluminum from businesses													
Identify WRR and MRW auditors and develop contracts													
Recruit participants in audit program													
Conduct audits													
Conduct business interviews re: business collection and audit programs													
Report on Business pilot programs													



ACTIVITY	2000				2001				2002				
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Agricultural Programs													
Develop technical pamphlets regarding on-site composting of livestock and plant waste, proper handling of pesticides and containers etc.													
Provide speakers list to local granges and other organizations (see Outreach, below), schedule and arrange for speakers as requested													
Investigate feasibility of regional agricultural programs													
Support implementation of regional programs, as warranted													
Moderate Risk Waste													
Continue existing collection of HHW and used oil													
Outreach Efforts:													
Develop/Collect HHW Information Brochures													
Develop radio/newspaper ads on HHW collection and reduction (1)													
Place media ads (1)													
Develop outreach materials for SQGs													
Arrange for HW reduction techniques to be identified in business waste													
Include speakers with MRW management and reduction expertise in													
Waste Reduction													
Develop media spots for on-site composting and other waste reduction													
Place ads (1)													
Assist with distribution of compost bins, as requested													
Identify topics and develop brochures on waste reduction topics													
Arrange for waste reduction techniques to be identified in business audits													
Include speakers with waste reduction expertise in speakers list													
Swap events (2)													
1)Included within 4 outreach campaigns per year													
2)As part of Special Collection Events													



ACTIVITY	2000				2001				2002				
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<i>Special Events and Outreach</i>													
Plan for and staff Earth Day and County Fair booths along with County													
Assist with County awards program													
Develop speakers list													
Assist with special collection events													
Plan annual media outreach													
Develop web site													
<i>Administration and Reporting</i>													
Assign Allied recycling coordinator													
Review, check, and interpret data on recyclables collected													
Prepare annual reports to County and SWAC on amounts collected and progress in implementing MRRP Plan													
Annual planning sessions													
Periodic meetings with County													
Overall Program Evaluation Report													

Appendix F. WUTC Map



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HDR: 7/3/2019



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Appendix G. SEPA Checklist



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SEPA 2020-01

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements -that do not contribute meaningfully to the analysis of the proposal.

A. **Background** [HELP]

1. Name of proposed project, if applicable:

Klickitat County Solid Waste Management Plan Update 2020

2. Name of applicant:

Klickitat County Solid Waste Department

3. Address and phone number of applicant and contact person:

**Ruby Irving, Klickitat County Solid Waste Department
127 West Court St.
Goldendale, Wa. 98620
509-773-4295**

4. Date checklist prepared:

September 30, 2019

5. Agency requesting checklist:

Klickitat County Solid Waste Department

6. Proposed timing or schedule (including phasing, if applicable):

This is for a non-project proposal to update the long-range plans for Solid Waste in Klickitat County. The proposed 2020 plan update is required to undergo public review and comment which is anticipated to begin in late 2019 to early 2020. The Solid Waste Management Plan is expected to be finalized in early 2020.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

The Solid Waste Management Plan is required to be reviewed every five years and updated as necessary.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

NA. The previous Klickitat County Solid Waste plan went through a SEPA review. No other environmental information has been or will be prepared which is directly related to this action.

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.

NA. There are no applications pending which would affect adoption of the Klickitat County Solid Waste Management Plan.

10. List any government approvals or permits that will be needed for your proposal, if known.



Washington State Law (RCW 70.95.094) and guidelines issued by the Department of Ecology (Guidelines for the Development of Local Solid Waste Management Plans and Plan Revisions, February 2010) require cities to adopt this plan (or they must develop their own plans), require a public review period (for a minimum of 30 days), require that the plan and a Cost Assessment Questionnaire be reviewed and approved by the Washington Utilities and Transportation Commission, and require Ecology to examine and approve of the preliminary draft and final plan. The Board of County Commissioners must also adopt the final draft of the plan, at about the same time that the cities adopt it.

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.)

Klickitat County is required by state law to maintain a "coordinated, comprehensive solid waste management plan" in a "current and applicable condition." The existing plan, adopted in 2013, needs to be updated. The proposed new plan addresses changes that have occurred since the previous update. In addition to updating the discussion of current facilities and programs, the proposed 2020 Plan Update 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 solid waste management plan can be viewed in the plan (see the Executive Summary or the implementation plan in Chapter 13 for a concise listing).

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 Klickitat County. A few facilities or activities outside of the county are also involved (such as recycling markets in other areas).

B. Environmental Elements [\[HELP\]](#)

1. Earth [\[help\]](#)

The SWMP is a non-project action and does not involve anything listed below.

- a. General description of the site:

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

NA. The SWMP is a non-project action and is not site specific.

- b. What is the steepest slope on the site (approximate percent slope)?

NA. The SWMP is a non-project action and is not site specific.

- 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.

NA. The SWMP is a non-project action and is not site specific.

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

NA. This is an update to the SWMP and is a non-project action.

- 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.

NA. This is an update to the SWMP and is a non-project action.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

NA. This is an update to the SWMP and is a non-project action.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

NA. This is an update to the SWMP and is a non-project action.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

NA. This is an update to the SWMP and is a non-project action.

2. *Air* [help]

The SWMP is a non-project action and does not involve anything listed below.

- 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.

NA. This is an update to the SWMP and is a non-project action.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

NA. This is an update to the SWMP and is a non-project action.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

NA. This is an update to the SWMP and is a non-project action.

3. *Water* [help]

The SWMP is a non-project action and does not involve anything listed below.

- a. Surface Water: [help]



- 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.

No. This is an update to the SWMP and is a non-project action.

- 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.

No. This is an update to the SWMP and is a non-project action.

- 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.

NA- No fill or dredge material will be placed in or removed from surface water or wetlands as a result of this proposal.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No. This is an update to the SWMP and is a non-project action.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

NA- While 100-year floodplains do lie within the planning boundaries of the county, the SWMP is a non-project action.

- 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.

No. This is an update to the SWMP and is a non-project action.

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.

No. This is an update to the SWMP and is a non-project action.

- 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.

NA. This is an update to the SWMP and is a non-project action.

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.

NA. This is an update to the SWMP and is a non-project action.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

NA. This is an update to the SWMP and is a non-project action.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

NA. This is an update to the SWMP and is a non-project action.

- d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

NA. This is an update to the SWMP and is a non-project action.

4. *Plants* [help]

- a. Check the types of vegetation found on the site:

_X_deciduous tree: alder, maple, aspen, other

_X_shrubs

_X_grass

_X_pasture

_X_crop or grain

_X_Orchards, vineyards or other permanent crops.

_X_wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other

_X_water plants: water lily, eelgrass, milfoil, other

_X_other types of vegetation

- b. What kind and amount of vegetation will be removed or altered?

NA. This is an update to the SWMP and is a non-project action.

- c. List threatened and endangered species known to be on or near the site.

NA. This is an update to the SWMP and is a non-project action.

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

NA. This is an update to the SWMP and is a non-project action.

- e. List all noxious weeds and invasive species known to be on or near the site.

NA. This is an update to the SWMP and is a non-project action.

5. *Animals* [help]

- 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.

All animals listed below have been seen within the boundaries of the SWMP area but because this is a non-project action, has no bearing on this update and is therefore not applicable.

Examples include:

birds: hawk, heron, eagle, songbirds, other:

mammals: deer, bear, elk, beaver, other:

fish: bass, salmon, trout, herring, shellfish, other:

- b. List any threatened and endangered species known to be on or near the site.

NA. This is an update to the SWMP and is a non-project action.

- c. Is the site part of a migration route? If so, explain.

NA. This is an update to the SWMP and is a non-project action. Therefore, there will be no migration routes affected.

- d. Proposed measures to preserve or enhance wildlife, if any:

NA. This is an update to the SWMP and is a non-project action.

- e. List any invasive animal species known to be on or near the site.

NA. This is an update to the SWMP and is a non-project action.

6. Energy and Natural Resources [help]

- 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.

NA. No new energy will be needed. The SWMP is a non-project action.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

NA. This is an update to the SWMP and is a non-project action.

- 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:

NA. This is an update to the SWMP and is a non-project action.

7. Environmental Health [help]

- 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.

The SWMP is a non-project action and does not involve anything listed below.

- 1) Describe any known or possible contamination at the site from present or past uses.

NA. This is an update to the SWMP and is a non-project action.

- 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.

NA. This is an update to the SWMP and is a non-project action.

- 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.

NA. This is an update to the SWMP and is a non-project action.

- 4) Describe special emergency services that might be required.

NA. This is an update to the SWMP and is a non-project action.

- 5) Proposed measures to reduce or control environmental health hazards, if any:

NA. This is an update to the SWMP and is a non-project action.

b. Noise

NA. Noise will not be generated nor will the non-project action be affected by existing noise.

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

NA. This is an update to the SWMP and is a non-project action.

- 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.

NA. This is an update to the SWMP and is a non-project action.

- 3) Proposed measures to reduce or control noise impacts, if any:

NA. This is an update to the SWMP and is a non-project action.

8. Land and Shoreline Use [help]

The SWMP is a non-project action and does not involve anything listed below.

- 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.

NA. This is an update to the SWMP and is a non-project action.

- 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?

NA. This is an update to the SWMP and is a non-project action.

- 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:

NA. This is an update to the SWMP and is a non-project action.

- c. Describe any structures on the site.

NA. This is an update to the SWMP and is a non-project action.

- d. Will any structures be demolished? If so, what?

NA. This is an update to the SWMP and is a non-project action.

- e. What is the current zoning classification of the site?

NA. This is an update to the SWMP and is a non-project action.

- f. What is the current comprehensive plan designation of the site?

NA. This is an update to the SWMP and is a non-project action.

- g. If applicable, what is the current shoreline master program designation of the site?

NA. This is an update to the SWMP and is a non-project action.

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

NA. This is an update to the SWMP and is a non-project action.

- i. Approximately how many people would reside or work in the completed project?
NA. This is an update to the SWMP and is a non-project action.
- j. Approximately how many people would the completed project displace?
NA. This is an update to the SWMP and is a non-project action.
- k. Proposed measures to avoid or reduce displacement impacts, if any:
NA. This is an update to the SWMP and is a non-project action.
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
NA. This is an update to the SWMP and is a non-project action.
- m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:
NA. This is an update to the SWMP and is a non-project action.

9. *Housing* [help]

The SWMP is a non-project action and does not involve anything listed below.

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
NA. This is an update to the SWMP and is a non-project action.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
NA. This is an update to the SWMP and is a non-project action.
- c. Proposed measures to reduce or control housing impacts, if any:
NA. This is an update to the SWMP and is a non-project action.

10. *Aesthetics* [help]

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
NA. This is an update to the SWMP and is a non-project action.
- b. What views in the immediate vicinity would be altered or obstructed?
NA. This is an update to the SWMP and is a non-project action.
- c. Proposed measures to reduce or control aesthetic impacts, if any:
NA. This is an update to the SWMP and is a non-project action.

11. *Light and Glare* [help]

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
NA. This is an update to the SWMP and is a non-project action.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

NA. This is an update to the SWMP and is a non-project action.

- c. What existing off-site sources of light or glare may affect your proposal?

NA. This is an update to the SWMP and is a non-project action.

- d. Proposed measures to reduce or control light and glare impacts, if any:

NA. This is an update to the SWMP and is a non-project action.

12. Recreation [help]

- a. What designated and informal recreational opportunities are in the immediate vicinity?

NA. This is an update to the SWMP and is a non-project action.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

NA. This is an update to the SWMP and is a non-project action.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

NA. The SWMP Update is a non-project action and will not result in the loss of any recreational opportunities.

13. Historic and cultural preservation [help]

The SWMP is a non-project action and does not involve anything listed below.

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

NA. This is an update to the SWMP and is a non-project action.

- 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.

NA. This is an update to the SWMP and is a non-project action.

- 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.

NA. This is an update to the SWMP and is a non-project action.

- 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.

NA. This is an update to the SWMP and is a non-project action.

14. Transportation [help]

The SWMP is a non-project action and does not involve anything listed below.

- 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.

NA. This is an update to the SWMP and is a non-project action.

- 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?

NA. This is an update to the SWMP and is a non-project action.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

NA. This is an update to the SWMP and is a non-project action.

- 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).

NA. This is an update to the SWMP and is a non-project action.

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

NA. This is an update to the SWMP and is a non-project action.

- 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?

NA. This is an update to the SWMP and is a non-project action.

- 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.

NA. This is an update to the SWMP and is a non-project action.

- h. Proposed measures to reduce or control transportation impacts, if any:

NA. This is an update to the SWMP and is a non-project action.

15. *Public Services* [help]

The SWMP is a non-project action and does not involve anything listed below.

- 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.

NA. This is an update to the SWMP and is a non-project action.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

NA. The SWMP Update is a non-project action, and will not result in the need for increased public services.

16. *Utilities* [help]

The SWMP is a non-project action and does not involve anything listed below.

- a. Circle utilities currently available at the site:



electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system,
other


NA. This is an update to the SWMP and is a non-project action.

- 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.

NA. This is an update to the SWMP and is a non-project action.

C. Signature [HELP]

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 RUBY IRVING
Position and Agency/Organization DIRECTOR OF SOLIDWASTE KLUCKITAT COUNTY
Date Submitted: 16 JAN 2020

D. Supplemental sheet for nonproject actions [HELP]

(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Implementation of the proposed recommendations should help reduce the amount of water and air discharges, while increasing the proper handling of any solid or toxic wastes that are generated in the county. There should not be a significant increase or reduction in noise as a result of the recommendations

Proposed measures to avoid or reduce such increases are:

Not applicable.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Any impacts to plants, animals, fish and marine life will only be incidental and should be beneficial. Activities such as reducing illegal dumping should help reduce impacts to plant and animal life. Encouraging composting of yard wastes should also be beneficial to plant life (assuming proper application of the compost).

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

Not applicable.

3. How would the proposal be likely to deplete energy or natural resources?

The proposed recommendations should help reduce energy demands and help to conserve natural resources, by increasing waste reduction and other activities.

Increased recycling not only leads to conservation of natural resources but also reduces energy demands. In general, using recycled materials in place of virgin materials requires significantly less energy in the manufacturing process.

Proposed measures to protect or conserve energy and natural resources are:

Not applicable.

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?

These areas should be unaffected by the recommendations in the solid waste management plan.

Proposed measures to protect such resources or to avoid or reduce impacts are:

Not applicable.

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 direct impacts to land use or shoreline use are anticipated to result from the proposed recommendations.

Proposed measures to avoid or reduce shoreline and land use impacts are:

Not applicable.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

The proposed recommendations should not have significant effects on transportation requirements, but public services will potentially be increased through new recycling and composting programs.

Proposed measures to reduce or respond to such demand(s) are:

Not applicable.



7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

No such conflicts are likely. The intent of updating the solid waste management plan is to comply with various laws and requirements (especially on the state level) regarding environmental protection and other factors.

Appendix H. WUTC Cost Assessment Questionnaire



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APPENDIX H - WUTC COST ASSESSMENT QUESTIONNAIRE

INTRODUCTION

By state law (RCW 70A.205), 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 cost assessment has been prepared in accordance with the guidelines prepared by the WUTC (WUTC 1997). The purpose of this cost assessment 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 needs this information 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 Klickitat County as to the probable collection rate impacts of proposed programs. Consistent with this purpose, the cost assessment focuses primarily on those programs (implemented or recommended) with potential rate impacts.

KLICKITAT COUNTY COST ASSESSMENT QUESTIONNAIRE

PREPARED BY Josiah Close, HDR

TELEPHONE: (425) 450-6245

DATE: September 13, 2019

Definitions: The Solid Waste and Moderate Risk Waste Management Plan (Plan) is a long-term strategy covering a twenty year span starting with 2019 as Year 1 and Year 6 is 2024. Klickitat County’s fiscal year is the same as the calendar year (CY) - that is - January through December. Klickitat County worked in conjunction with local governments as well as HDR to develop a county wide comprehensive plan. No other jurisdictions have developed a plan exclusive of Klickitat 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 and the associated populations are detailed in the table below as well as the



assumed percentage increases from the plan years one, three, and six. The 2018 population of 21,980 was taken from Table 2-1 of the Plan and is utilized as the starting point. This figure was then projected for 2019 through 2024 by extrapolating the projected population growth with the help of addition projection data from OFM for 2025.

Year	Plan Year	Klickitat County Population	Percent Change
2019	1	21,966	-0.1 ^[1]
2020	2	21,952	-0.1
2021	3	21,938	-0.1
2022	4	21,924	-0.1
2023	5	21,910	-0.1
2024	6	21,896	-0.1

Note 1: based on the population change from 2018

Waste Stream Generation

The following table details the estimated waste generation and recycling tonnage for Klickitat County. Waste generation is estimated at 7.87 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)
2019	1	31,549	24,293	4,417	2,839
2020	2	31,529	24,278	4,414	2,837
2021	3	31,509	24,262	4,411	2,835
2022	4	31,489	24,247	4,408	2,834
2023	5	31,469	24,231	4,406	2,832
2024	6	31,449	24,216	4,403	2,830

Waste Generation Assumptions:

- Figures, except the year, are shown as tons per year (TPY). Projected waste generation figures for 2019 through 2024 are based on the waste generation rate for 2016 (7.87 pounds per person per day) which is based on Ecology tonnage records together 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 2016.
- MSW Disposed per person per day is 6.06 pounds or 2,212 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 CPG grants.

Waste Reduction Programs

Existing education and outreach waste reduction programs implemented by Klickitat County and detailed in Plan Section 3.2:

“Pay-as-you-throw” rates

Public education and outreach

Curbside residential recycling services (free)

Drop box sites

Public event recycling

The costs of providing the waste reduction programs are included within Klickitat County’s overall Solid Waste Division budget and are funded through County revenues.

Recycling Programs

Currently, curbside residential recycling collection service is available through the established “blue bag” program, free of charge. The “blue bag” recycling program is provided through the Agreement with RS which requires recycling and countywide curbside collection at no cost to participants. Blue plastic bags are provided by RS for the program with participants placing commingled recyclables in the bags and setting the bags curbside for collection on specified collection days. Commercial-sector recycling is available, for a fee, through the private haulers in Klickitat County. Additionally, Klickitat County is currently offering fourteen (14) portable recycling containers specifically designed to collect beverage containers at public events which can be reserved through the Solid Waste Division. This program is a low-cost public service with high visibility that provides a positive benefit for those involved.

Solid Waste Collection Programs

The following table details information about the WUTC-regulated collection in Klickitat County that operate within the municipalities. Shown below is a summary of the waste collection by entity and includes the entity responsible for collection. There are currently



two contracted collection providers Columbia River Disposal (CRD) and Republic Services, Inc. (RS).

MSW Collections within Klickitat County								
	Collection Entity		2019	2020	2021	2022	2023	2024
Bingen	CRD, RS	Pop	735	734	734	733	733	732
		Tons	812	812	811	811	810	810
Goldendale	RS	Pop	3,528	3,526	3,523	3,521	3,519	3,517
		Tons	3,902	3,899	3,897	3,894	3,892	3,889
White Salmon	RS	Pop	2,503	2,502	2,500	2,499	2,497	2,495
		Tons	2,769	2,767	2,765	2,763	2,762	2,760
Unincorp.	CRD, RS	Pop	15,200	15,191	15,181	15,171	15,162	15,152
		Tons	16,811	16,800	16,789	16,779	16,768	16,757
Total Population			21,966	21,952	21,938	21,924	21,910	21,896
Total Tons			24,293	24,278	24,262	24,247	24,231	24,216

* Projected 2019 through 2024 data based on assumed waste generation rates and population growth rates applied to 2018 population and 2016 tonnage data

Energy Recovery & Incineration Programs

Solid waste from Klickitat County is disposed at 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. Additional information on these conversion technologies can be found in the Plan in Chapter 8.

Land Disposal Program

Klickitat County owns but does not currently operate the Horsethief Landfill, it was closed in 1994 and is under post-closure monitoring. All solid waste collected in Klickitat County's service area is disposed at the Roosevelt Regional Landfill (RRL) operated by RS. The following tables detail the total projected amount of MSW tons.

Total Solid Waste Collection						
	2019	2020	2021	2022	2023	2024
Total MSW Tons	24,293	24,278	24,262	24,247	24,231	24,216

Expenses

The project expenses (2020 – 2024) for Klickitat County are shown below are based on cost figures escalated from the 2019 budget by assumed inflationary factors.

	2019	2020	2021	2022	2023	2024
Total Expenses (\$000s)	\$389	\$401	\$414	\$428	\$442	\$456
MSW Tons	24,293	24,278	24,262	24,247	24,231	24,216
Cost per MSW Ton	\$15.99	\$16.53	\$17.07	\$17.64	\$18.23	\$18.84



Funding Mechanisms

System costs reported in this questionnaire are funded by fees collected from the agreement with RS. Klickitat County also receives grant monies from Ecology for solid waste management planning activities, litter clean up, MRW disposal, and pilot projects. Provided in the table below is a summary of the revenues received by Klickitat County based on the recently completed draft rate study.

System Funding Source	2019 Budget	Funding Percentage
Administrative Fees	\$251,652	63.1
WA DOE – CPG Grant	103,000	25.8
WA DOE – Community Litter Cleanup	34,000	8.5
Other – Reimburse Contracts	<u>10,000</u>	<u>2.5</u>
Total Funding Sources	\$398,652	100.0

Klickitat County currently does not directly charge customers for services. Rather, RS charges for disposal services at RRL and pays Klickitat County per the agreement. This revenue is shown in the table above under the first line item. The remaining funding is mostly sourced from State grants. Due to the fact that a majority of revenues are not derived from the number of County population (which is anticipated to decline slightly) that is served, the financial review did not anticipate of growth over the review period.

The following assumptions were used to project revenues and expenses:

- Revenues – 0.0%
- Expenses – 3.0% - 4.0%

Klickitat County Projected Budget 2019 to 2024 (\$000s)						
Costs	2019	2020	2021	2022	2023	2024
Revenues						
Service Revenue	\$252	\$252	\$252	\$252	\$252	\$252
Revenue from Rate Adj.	0	0	0	0	0	0
Other Misc. Revenue	<u>147</u>	<u>148</u>	<u>150</u>	<u>151</u>	<u>153</u>	<u>154</u>
Total Revenue	\$399	\$400	\$402	\$403	\$405	\$406
Expenses						
Expenses	\$389	\$401	\$414	\$428	\$442	\$456
Reserves & Taxes	0	0	0	0	0	0
Closure / Post Closure	0	0	0	0	0	0
Capital	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Expenses	\$389	\$401	\$414	\$428	\$442	\$456
<i>Bal. / (Def.) of Funds</i>	\$10	(\$1)	(\$13)	(\$25)	(\$37)	(\$50)

The table above utilizes Klickitat County's 2019 budgeted revenues and expenses. Those are then inflated by the escalation factors shown previously. As can be seen, Klickitat County is currently fully funding the solid waste utility. However, over time, as expenses increase, the revenues are not sufficient to fund the utility. It is important to note that for



Klickitat County, there is no owned and operational landfill. Therefore, closure and post-closure costs do not need to be accounted for and so there is no future or additional liability with regards to those costs. Given the deficiency of funds in 2020 through 2024, Klickitat County should address this by either a future revenue adjustment or expense reduction. Additionally, while it is projected that local population – and therefore solid waste tonnage – will decrease in the next five years, Klickitat County relies on funding for programs from the regional landfill located in Klickitat County. Overall disposal at the regional landfill is not anticipated to decrease. Republic Services and Klickitat County will strategize through contractual obligations as to how this transition should happen as some costs may not decrease proportionally with the service population.

Appendix I. SEPA Determination



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KLICKITAT COUNTY PLANNING DEPARTMENT

228 W. Main, MS: CH-17
Goldendale, WA 98620
509 773-5703
FAX 509 773-6206

MEMORANDUM

DATE: January 16, 2020

TO: Klickitat County Board of Commissioners, Assessor, Building, Engineer, Sanitarian, Weed Control, and Prosecuting Attorney; WA State Department of Ecology (Yakima Office and SEPA Register); WA State Departments of Fish and Wildlife, Natural Resources, Archaeology & Historic Preservation, Transportation (Vancouver and Goldendale), Office of Drinking Water; Yakama Indian Nation, (Office of Legal Council, Dept. of Natural Resources and Tribal Council); Bureau of Indian Affairs; Public Utility District (Waste/Water & Engineering); Rural Fire Districts; Community Councils; FT Vancouver Regional Library: Goldendale and White Salmon branches; Cities of Goldendale, Bingen and White Salmon; NRCS; USFS; The Goldendale Sentinel; The Enterprise

FROM: Klickitat County Planning Department

RE: SEPA Threshold Determination No. SEP2020-01
Applicant: Klickitat County Solid Waste

Enclosed is a **Determination of Non-significance** (DNS) for the proposed update to the Klickitat County Solid Waste Management Plan. For a copy of the draft plan, please contact the Klickitat County Solid Waste Department at (509) 773-4448 or rubyj@klickitatcounty.org

Written comments, relating to the **DNS**, may be submitted to the Klickitat County Planning Department. Deadline for comment is February 7, 2020. Per the Klickitat County Environmental Ordinance #121084, as amended, any agency or person may appeal this DNS to the Board of County Commissioners, who would then hold a hearing. Appeals shall state with specificity the basis for the appeal and the errors to be asserted to the Board. Appeals shall not be deemed complete without payment of the appeal fees applicable to Class C projects, payable to Klickitat County Planning Department. Appeals must be filed with the Board of County Commissioners and the Klickitat County Auditor by 5:00 p.m., February 7, 2020.

Thank you for your attention to this matter. If questions arise, please contact this office.

Attachments.



REQUEST FOR APPEAL OF RESPONSIBLE OFFICIAL'S ACTION

DATE:

TO: Klickitat County Board of Commissioners

RE: S.E.P.A. Threshold Determination No. SEP2020-01

I hereby appeal the above decision by the Klickitat County Responsible Official for the following environmental reasons:

Signature

Date



DETERMINATION OF NON-SIGNIFICANCE

ENVIRONMENTAL CHECKLIST NO: SEPA2020-01

DESCRIPTION OF PROPOSAL: Proposed update to the Klickitat County Solid Waste Management Plan. For a copy of the draft plan, please contact the Klickitat County Solid Waste Department at (509) 773-4448 or rubyi@klickitatcounty.org

PROPONENT: Ruby Irving, Director
Klickitat County Solid Waste
127 West Court St
Goldendale, WA 98620

LEAD AGENCY: Klickitat County Planning Department
228 West Main, MS: CH-17
Goldendale, WA 98620

The lead agency for this proposal has determined that this proposal does not have probable significant impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public upon request.

COMMENT PERIOD: Comments received until February 7, 2020

APPEAL PERIOD ENDS: February 7, 2020 at 5pm

RESPONSIBLE OFFICIAL: Mo-chi Lindblad
Klickitat County Planning Director
228 West Main, MS: CH-17
Goldendale, WA 98620

Telephone: 509-773-5703
FAX: 509-773-6206

SIGNED this 16th day of January, 2020

Mo-chi Lindblad
Planning Director and
SEPA Responsible Official

Klickitat County Determination of Non-Significance

Notice is hereby given that Klickitat County issued a Determination of Non-significance (DNS) on January 16, 2020 under SEPA Rules (Chapter 197-11 WAC) and the Klickitat County Environmental Ordinance Number 121084, as amended, for the following proposal:

SEPA2020-01. Project: Proposed update to the Klickitat County Solid Waste Management Plan. For a copy of the draft plan, please contact the Klickitat County Solid Waste Department at (509) 773-4448 or rubyi@klickitatcounty.org

After review of the completed environmental checklists and other information on file the Klickitat County Responsible Official has determined that this proposal will not have probable significant adverse impacts on the environment. Copies of the DNS are available at the Klickitat County Planning Department during normal business hours. Comments or appeals on the above environmental reviews will be accepted until 5:00 pm February 7, 2020. Appeals must be filed with the Klickitat County Auditor's office. Appeals shall not be deemed complete without payment of the applicable appeal fees, payable to Klickitat County Planning Department.

Attention Newspapers of Publication:

Please publish one time during the week of January 20, 2020

Please send affidavit of publication and an invoice to:

Klickitat County Solid Waste Dept
127 West Court Street
Goldendale, WA 98620

Appendix J. Comments and Responses



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Comments and Responses to the Plan will be inserted by Klickitat County when completed.



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Appendix K. Contamination Reduction and Outreach Program



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Appendix K: Recycling Contamination Reduction and Outreach Plan (CROP)

K.1 Introduction

This document addresses reducing contamination in recycling programs for single-family and multi-family residences, commercial locations, and recycling collection sites in Klickitat County (County).

K.2 Background

This section presents information on rules and regulations and programs related to contamination reduction and outreach.

K.2.1 Rules and Regulations

House Bill 1543, Sustainable Recycling, was signed on April 29, 2019, and took effect July 1, 2019. The act required the Washington State Department of Ecology (Ecology) to create a state recycling CROP by July 1, 2020, with local jurisdictions required to either create their own CROP or adopt the state CROP by July 1, 2021. The County has chosen to create their own CROP.

Revised Code of Washington 70A.205 stipulates the requirements to be included in a CROP as follows:

- A list of actions for reduction of contamination in recycling programs for single-family and multi-family residences, commercial locations, and drop boxes.
- A list of key contaminants identified by the jurisdiction or Ecology.
- A discussion of problem contaminants and the contaminants' impact on the collection system.
- An analysis of the costs and other impacts associated with contaminants to the recycling system.
- An implementation schedule and details of how outreach is to be conducted, which may include sharing community-wide messaging through newsletters, articles, mailers, social media, websites, or community events; informing recycling drop box customers about contamination; and improving signage.

In 1989, the County signed Resolution No. 07489, which authorized an agreement with Republic Services (RS) concerning solid waste handling. The agreement obligated RS to develop, implement, and maintain a County-wide Model Rural Recycling Program Plan for implementation. The Model Rural Recycling Program was implemented in 1999 and identifies specific facilities, programs, and support services RS will provide within the County and how these facilities, programs, and support services will be coordinated with the waste reduction and recycling efforts sponsored by the County to help make substantial progress towards achieving an overall 50 percent waste reduction and recycling rate. Additional information on the agreement between the County and RS can

be found in Chapter 8 – Disposal. Appendix E contains the Model Rural Recycling Program Plan.

K.2.2 Recycling Collection Programs

Curbside residential recycling is currently available County-wide through the agreement with RS, which requires the service be provided at no cost to residents. Materials currently collected through the residential curbside recycling program include tin and aluminum cans, mixed paper and cardboard, and plastics #1 and #2. Recycling for self-haulers is also available at the three transfer stations and the landfill located within the County, with drop-off recycling items including tin and aluminum cans, mixed paper and cardboard, plastics #1 and #2, and glass. Commercial sector recycling is available for a fee through the private haulers in the County.

K.2.3 Processing Facilities

Recycling collected in the County is currently taken to the Republic Recycling Transfer Station (RRTS) for processing, located at 2733 3rd Avenue South, Seattle, WA 98134. RRTS currently accepts recyclable materials from King, Snohomish, and Whitman counties in addition to Klickitat County. While they have not been collecting contamination information specific to the County, their 2019 estimated average contamination rate was 19 percent, and they currently estimate that through August 2020 the contamination rate is 29 percent. The RRTS does not currently consider any recycling material stream from their traditional sources as problematic.

Glass collected in the County is currently taken to the Glass to Glass Recycling Facility located at 866 North Columbia Boulevard, Portland, OR 97217.

K.2.4 Recycling Characterization Study

A recycling characterization study was commissioned in August 2020 to analyze recyclables collected. The study examined recyclable materials collected by the waste haulers and targeted two recycling sectors in the County that included:

- **Residential:** Curbside recycling from the west side of the County, including White Salmon, Bingen and surrounding communities, collected by recycling haulers and municipalities, primarily from single-family homes. This also includes recycling from small multi-family homes, such as duplexes, triplexes, and quadplexes, when collected curbside along residential hauling routes.
- **Self-haul:** Recycling that is brought by residents to the recycling drop box site at the Goldendale Transfer Station.

Results of the study are summarized in Table K-1.



Table K-1. Klickitat County Recycling Characterization (in Pounds)				
Material Type	Location		Totals	
	Goldendale Self-Haul	White Salmon Curbside	Pounds	Percent
Paper				
Cardboard	130.0	32.2	162.2	33.2%
Mixed Paper	103.4	66.8	170.2	35.0%
Total Paper	233.4	99.0	332.4	68.2%
Plastics				
Plastics #1 and #2	19.9	6.4	26.3	5.4%
Total Plastics	19.9	6.4	26.3	5.4%
Metals				
Aluminum Cans	10.2	8.4	18.6	3.8%
Tin Cans	11.2	8.5	19.7	4.0%
Total Metals	21.4	16.9	38.3	7.8%
Contaminants				
Plastic Bags and Film	2.3	2.8	5.1	1.0%
Hose, Wire, and Rope	6.6	.3	6.9	1.4%
Non-Program Plastics (Clamshells)	3.0	1.4	4.4	0.9%
CD Cases	3.2	10.9	14.1	2.9%
Garbage/Other	54.9	3.5	58.4	12.1%
Glass	0.0	1.7	1.7	0.3%
Total Contaminants	70.0	20.6	90.6	18.6%
Total Materials Sorted	344.7	142.9	487.6	100%

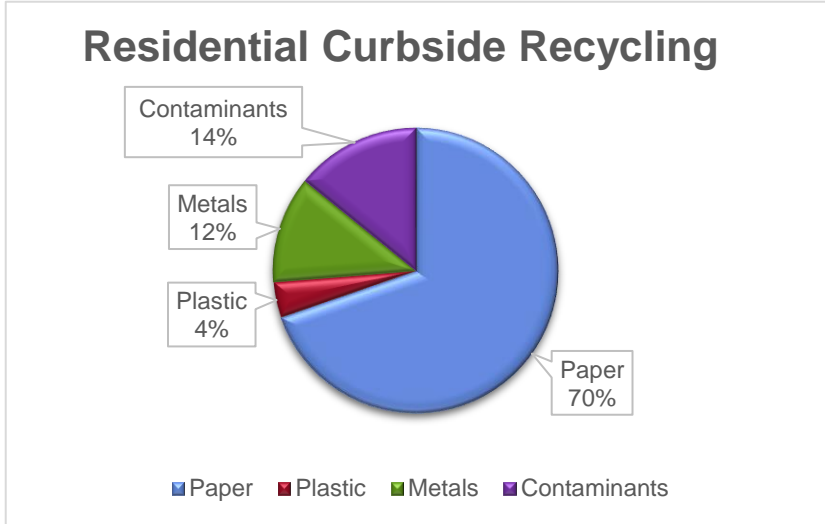
Noteworthy results by sector are described below:

Residential Curbside:

The residential curbside recycling material was collected in the White Salmon/Bingen area, with 142.9 pounds categorized. The largest category of recyclable material was paper, which accounted for 70 percent and included mixed paper and cardboard.

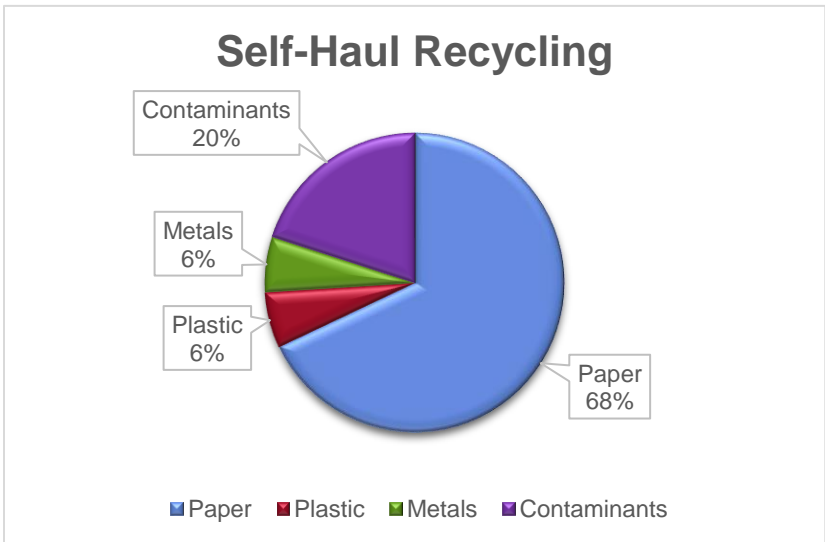
Contaminants accounted for 14 percent of the

materials and included broken glass, plastic bags and film, CD cases, tanglers, clam shells, and household trash. The bags utilized to collect the recyclables are contaminants and are included, by weight, in the 14 percent material contaminant rate.



Self-haul: The largest category of recyclable materials in this stream was paper at 68 percent, which included both cardboard and mixed paper. Contaminants accounted for 20 percent of the materials and included materials such as plastic bags and film, CD cases, clam shells, tanglers, razorblades, and dead frogs. Material was collected from self-

haulers at the Goldendale Transfer Station, with 344.7 pounds categorized. The bags utilized to collect the recyclables are contaminants and included, by weight, in the 20 percent material contaminant rate.



K.3 CROP

The goal of the CROP is to reduce contamination in recyclables collected in the County through implementation of data measurement tools, addressing contamination reduction, and establishment of County-wide outreach messaging.

K.3.1 Data Measurement

In 2020, the County standardized metrics for measuring contamination in recyclables through the implementation of a Recycling Characterization Study. This Study provides

standardized metrics that can be utilized to measure key contaminants segregated by single-family residences, multi-family residences, commercial locations, and the drop box sites. This baseline metric also provides contamination benchmarks by participant type, area, and customer type.

Standardized recyclable materials tonnage will be maintained by the County to establish the recycling database. Recycling tonnage reported will be segregated by customer type (i.e., single-family, multi-family, commercial, drop box, glass).

K.3.2 Initial Key Contaminants

The following is the initial list of key contaminants to be addressed:

- Plastic bags, film and clamshells
- Non-program plastics
- Food and liquids
- Hose, wire, and rope
- Textiles and toys

Additional contaminants, while not currently found in the Recycling Characterization Study, to be addressed include:

- Hazardous materials
- Hypodermic needles

Key contaminants may be added to the list upon completion of additional recycling characterization studies.

K.3.3 Addressing Contamination

Contamination is best addressed through a variety of means and actions, to include:

- Visual inspections of self-haul loads of recyclables delivered to the Goldendale Transfer Station, BZ Corners Drop Box Site, and Roosevelt Drop Box Site will be conducted and customers advised as to proper segregation techniques.
- Visual inspections of curbside recyclables collected will be conducted and customers advised as to proper segregation techniques.
- Recycling Characterization sampling will be conducted twice yearly to measure benchmarks for contamination and success of programs and messaging campaigns.
- Signage at the Goldendale Transfer Station, Dallesport Transfer Station, BZ Corners Drop Box Site, and Roosevelt Drop Box Site will be updated to advise system users on contamination in commodities and acceptable recycling materials.
- The County and RS will work cooperatively to implement a coordinated County-wide messaging campaign.

K.3.4 County-wide Outreach Messaging

Providing a coordinated County-wide outreach messaging campaign around reducing contaminants in recycling is first and foremost in educating the citizens and businesses in the County. The current messaging campaign (implemented through Ecology) will be incorporated into the County-wide outreach messaging. In addition, the County campaign will incorporate outreach programs to educate about various waste reduction methods, communicate what can and cannot be accepted, and target reducing specific contaminants based on the Recycling Characterization Study.

The County and RS will collaborate and coordinate on messaging that is appropriate to single-family residences, multi-family residences, commercial locations, and the transfer station and drop box sites using the following:

- The County and RS will coordinate social media releases including websites, Facebook, Twitter, YouTube, etc. based on the target audience.
- The County will maintain a website to which residents can be directed for information.
- The County and RS will participate in regional and State programs for coordination of recycling market development and educational efforts.
- The County and RS will develop educational resources and provide technical assistance for single-family and multi-family residences regarding waste reduction and contamination reduction methods.
- The County and RS will develop business technical assistance to assist commercial customers with recognition of contamination in recyclables and methods to reduce it.
- RS will update signage at the Goldendale Transfer Station, Dallesport Transfer Station, BZ Corners Drop Box Site, and Roosevelt Drop Box Site to coordinate the messaging from the CROP.
- The County and RS will work with regional partners for planning and alignment of services.

K.4 Costs

Costs for contaminants in the recycling system are currently covered through the agreement between the County and RS.

K.5 Implementation Schedule

Table K-2 provides the CROP Implementation Schedule.



Table K-2. Recycling CROP Six-Year Implementation Schedule

Implementation Item	Implementation Responsibility	Implementation Year					
		2021	2022	2023	2024	2025	2026
Continue Recycling Characterization sampling events on a twice-yearly basis.	Klickitat County	X	X	X	X	X	X
Standardize metrics for measurement of contamination and economic modeling.	Klickitat County, Republic Services	Ongoing					
Update recycling signage at the transfer station and drop box sites.	Republic Services	X	-	-	-	-	-
Coordinate a County-wide messaging campaign.	Klickitat County, Republic Services	Ongoing					
Work together in the County and with regional partners to implement the CROP.	Klickitat County, Republic Services	Ongoing					