FOR YEARS
2025–2030

DRAFT

CLARK COUNTY, WASHINGTON

COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

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EXECUTIVE SUMMARY

Introduction

The purpose of the solid waste management activities in Clark County is to protect and preserve human health, environmental quality, and natural resources through efficient, cost-effective programs and services. This Comprehensive Solid Waste Management Plan (CSWMP) was prepared to provide a guide for solid waste activities in Clark County. The CSWMP addresses recent changes while also looking forward to the future needs of the county.

The contents of this CSWMP have been prepared in accordance with the requirements and intent of chapter 70A.205 RCW. This plan also incorporates the county's Moderate Risk Waste Management Plan as required by RCW 70A.300.350, and the Contamination Reduction and Outreach Plan (CROP) as required by RCW 70A.205.045. The CSWMP was developed through a team effort by Clark County, the cities and town within Clark County, the Solid Waste Advisory Commission (SWAC), and the Regional Solid Waste System Steering Committee (RSWSSC).

The CSWMP is divided into chapters which discuss the different components of the solid waste system. The chapters contain an assessment of existing conditions and recommended actions. The final chapter of this CSWMP outlines an implementation schedule that lists recommended actions and timeframes for implementation. This CSWMP also coordinates the county's solid waste system and programs with the ***2021 State Solid and Hazardous Waste Plan: Moving Washington Beyond Waste and Toxics, Use Food Well Washington***, and the ***Washington State Recycling Contamination Reduction and Outreach Plan***.

During development of this plan, the ***hierarchy for solid waste management*** as identified by the United States Environmental Protection Agency (EPA) was referenced. Considering most environmental impacts related to solid waste management and disposal methods occur long before a material's end of life, this version of the Clark County CSWMP places emphasis on priorities which place energy recovery at a higher hierarchy level than the EPA. The county will continue to emphasize "reduce, reuse & recycle" in its programs and messages while emphasizing composting and reducing food waste in accordance with updated legislations. Note at the time of this plan revision, the EPA was in the process of reviewing the waste hierarchy.

Overview of changes

Many of the changes to chapters and recommendations are a result of condensing and streamlining the information in this CSWMP. For example, internet links have been included as references to reduce language and appendices; duplicate recommendations in various chapters have been eliminated; more general recommendations have been removed to focus on recommendations that are action oriented and quantifiable. Many of the recommendations are ongoing.

Some of the changes include:

- The inclusion of Chapter 2: The planning area which was omitted in the previously approved version.
- Organizing the plan to meet current Washington Department of Ecology table of contents structure recommendation to ensure all key topics are covered.
- Expanding Chapter 6: Organics to incorporate the guidance outlined in the Use Food Well Washington Plan of 2021.
- Outlining the need for a fourth transfer station and siting criteria.
- Further discussing ownership options for the three existing transfer stations.
- Creating a separate chapter to consolidate all implementation plans in one section.

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BACKGROUND AND ADMINISTRATION

1.1 Introduction

The Revised Code of Washington (RCW) 70A.205.045 requires each county within the state of Washington to prepare a coordinated, comprehensive solid waste management plan to arrange for solid waste and materials reduction, collection, and handling as well as management of services and programs throughout the state designed to meet the unique needs of each county. Solid waste includes 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, and recyclable materials. The Clark County Comprehensive Solid Waste Management Plan (CSWMP) proposes strategies for managing Clark County's solid waste over the next several years, with consideration for what changes may occur over the next 20 years.

City councils throughout Clark County enter into Interlocal Agreements (Appendix D) that identify Clark County as the agency responsible for the coordination and development of the CSWMP as the county works towards maintaining a regional solid waste system. This CSWMP was developed in reference to applicable state and local regulations (Appendix F). The revision process updates were determined under the guidance and recommendations of the Solid Waste Advisory Commission (SWAC), the Regional Solid Waste System Steering Committee (RSWSSC), Washington Department of Ecology (Ecology), representatives of the six cities and one town, interested citizens, solid waste industry representatives, and others.

The CSWMP addresses critical items needed for future decision-making on implementing improvements to the solid waste system in Clark County by:

- Promoting sustainable practices for governments, nongovernmental organizations, businesses, and residents.
- Reviewing pertinent regulations and other management plans.
- Providing guidelines for the development of programs, policies, and operating plans.
- Planning for solid waste infrastructure and operations (including facility siting criteria and process).
- Providing background information to support facility permitting decisions by Clark County Public Health (CCPH) and other state and local government agencies.
- Offering technical support and justification for grant applications, capital project fund requests, budget planning, and future programs.
- Collecting and maintaining system data.
- Serving as education and information to the public.
- Identifying and presenting opportunities for collaboration with statewide agencies and others in the region for collection and recycling services, including potential ownership and operation of facilities.

Clark County Solid Waste and Recycling programs are administered through CCPH and are comprised of Solid Waste Operations (SWO) and Solid Waste Education and Outreach (SWEO). The purpose of solid waste management activities in Clark County is to protect and preserve human health, environmental quality, and natural resources through efficient and effective community-based programs and services.

This CSWMP supersedes all previously adopted solid waste management plans in Clark County. Through adopting this plan, the Clark County Council guides solid waste policy into the future.

1.2 Principles of the planning vision

The CSWMP intends to establish a viable and functional regional system for the proper management of solid waste in Clark County, both now and in the future. The CSWMP incorporates the following vision, mission, and values:

Vision

A future where less waste is generated.

Mission

To provide equitable services and infrastructure that equip everyone to sustainably manage waste.

Values

- **Community:** We collaborate with community members and partners to educate, inspire, and foster accessible use of the solid waste system.
- **Environment:** We recognize the natural environment is our life support system. Protecting it is critical to our health and resiliency.
- **Equity:** We respect all people and serve with transparency to provide unbiased and fair services.
- **Quality:** We build efficient and effective programs and services using the best available science and research.

1.3 Goals and objectives

Our vision is supported by goals focused on our values including community, environment, equity, and quality services. This collection of vision, values, and goals creates the framework that guides our work. The goals outlined in the CSWMP are to:

Community

- Encourage collaborative and coordinated efforts among government agencies, citizens, and the private sector for managing solid wastes.
- Proactively engage and collaborate with impacted community partners (including businesses, residents, and agencies) to make informed decisions and improve our recycling and solid waste system.
- Promote sustainable actions and behaviors that ensure resources and options for future generations.

Environment

- Protect the environment and human health by reducing greenhouse gas emissions and delivering solid waste services.
- Promote source reduction and improve recycling effectiveness.
- Meet goals set by Ecology for food waste management and waste reduction strategies.

Equity

- Make the solid and hazardous waste system more accessible and equitable for all Clark County customers.
- Achieve a reasonable balance among public convenience, public expenses, public health, and the environment.
- Ensure any communications regarding the solid waste management system are clear and accessible to all people.
- Establish meaningful topics of education that enable participants to better understand and engage in the solid and hazardous waste system.

Quality

- Maintain a solid waste system that supports economic vitality while conserving natural and fiscal resources for future generations.
- Maintain accurate waste stream measurement, monitoring, and dissemination to increase transparency.
- Develop plans for securing adequate funding and resources to build, operate and maintain a solid and hazardous waste management system for the next 20 years.
- Develop systems and strategies for prioritizing what services should be provided, how they are to be funded and resourced, and recognize and respond quickly to rising costs due to unforeseen conditions.
- Regularly assess and identify future system expansion needs (including potential future public ownership of the transfer stations), improve services, and address impacts.
- Increase local control of solid waste management.

1.4 Required content

This CSWMP was developed in reference to the ***Guidelines for Development of Local Comprehensive Solid Waste Management Plans and Plan Revisions*** established by Ecology to follow RCW 70A.205.045. Within the guidelines, submittal requirements are outlined including the following:

Interlocal agreements

Interlocal agreements for planning the CSWMP have been approved and signed by all participating jurisdictions in the Clark County regional solid waste system (Appendix D). The interlocal agreement outlines the understanding that a regional system is better for the residents of Clark County. Further, the agreement identifies Clark County as the lead agency who is responsible for drafting, coordinating, and distributing the CSWMP.

Resolution of adoption

Prior to submitting the CSWMP to Ecology for final review and approval, it must be adopted by all participating jurisdictions and the planning jurisdiction. The signed resolution for each participating jurisdiction is provided in Appendix E. Note that if a jurisdiction refuses to adopt the plan and all efforts to resolve the conflict are exhausted, the situation must be explained in writing and provided to Ecology with the signed resolutions. For jurisdictions that opt out of the regional plan, they are responsible for developing and adopting their own solid waste management plan and submitting for Ecology approval prior to separating from the regional plan.

Programmatic environmental impact statement

The Washington State Environmental Policy Act (SEPA) process identifies and analyzes environmental impacts that are associated with private projects, constructing public facilities, or adopting regulations, policies, and plans. Determination of non significance has been issued with this CSWMP. The determination of non significance and the SEPA Environmental Checklist for this CSWMP are in Appendix B. This checklist evaluates the environmental impacts associated with implementing the programs or the non-site-specific aspects of the programs and facilities recommended in the plan.

Washington Utilities and Transportation Commission cost assessment questionnaire

A cost assessment has been prepared for submission to the Washington Utilities and Transportation Commission (WUTC) as part of the CSWMP. This cost assessment is required by RCW 70A.205.065 and provides the WUTC with an opportunity to review and comment on the impacts of implementing the CSWMP's programs on solid waste collection rates. The cost assessment is presented in Appendix C.

Involvement of the Solid Waste Advisory Commission

The role of the Solid Waste Advisory Commission (SWAC) is to advise the county council on solid waste matters; to comment on rules, policies, and ordinances; to assist in the development of plan updates; to serve as a means for citizens, industry, or other bodies and individuals to participate in solid waste planning; and to advise on any other solid waste matters, as directed by the county council.

As required by RCW 70A.205.110, the SWAC has reviewed and actively participated in the preparation of the CSWMP. During the most recent revision of the CSWMP, updates, revisions, discussions, and presentations occurred in the meetings held on February 3, May 5, August 4, September 1, September 22, October 6, November 3, and December 2 of 2022 and continued on to April 6, May 4, June 1, August 3, and November 2, of 2023. Additionally, SWAC members were given the opportunity to participate through an initial public commenting period ranging from July 2023 to the end of October 2023. Results of the comments were shared in the November 2023 SWAC meeting. In 2024, significant efforts were made improving the visual design and restructuring of the plan. Updates were provided in the February and May 2024 meetings. SWAC was further invited to participate in the public comment period for the preliminary draft submitted to Ecology. Public comments are provided in Appendix S.

Review of pertinent regulations and ordinances

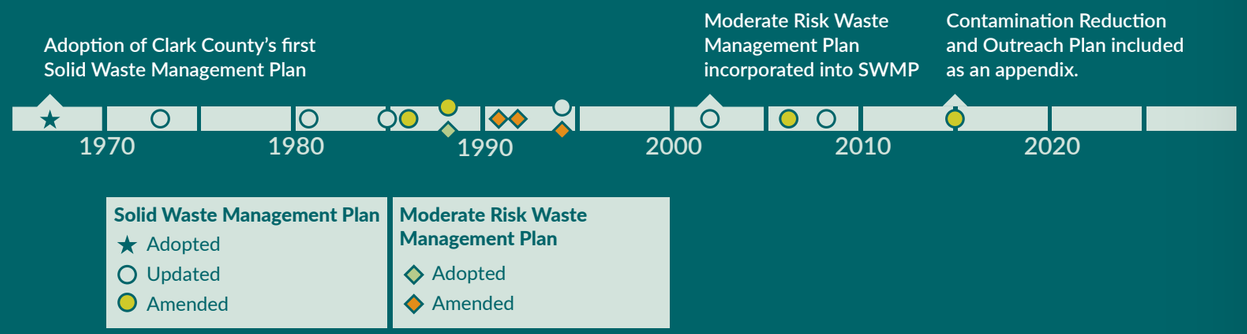
Throughout the chapters of this document, specific relevant regulatory code is discussed. The most pertinent regulations are those governing solid waste itself. In the development of this updated CSWMP, both state and local regulations that specifically address solid waste and recycling facility operation, design and siting were reviewed in the context of the operation of existing facilities and construction of future facilities. Principle rules, statutes and ordinances include:

- ***Chapter 173-350 WAC, Solid Waste Handling Standards***
- ***Chapter 173-351 WAC, Criteria for Municipal Solid Waste Landfills***
- ***Chapter 70A.205 RCW, Solid Waste Management – Reduction and Recycling***
- ***Chapter 70A.210 RCW, Pollution Control – Municipal Bonding Authority***
- ***Chapter 70A.214 RCW, Waste Reduction***
- ***Chapter 35.21 RCW, Miscellaneous Provisions***
- ***Chapter 36.58 RCW, Solid Waste Disposal***
- ***Chapter 70A.200 RCW, Waste Reduction, Recycling, and Model Litter Control Act***

For a comprehensive list of the regulations that impact solid waste management and planning, refer to Appendix F.

Compliance verification checklist

A checklist has been provided to Ecology that clearly articulates requirements specified by state code (Appendix R). The compliance checklist cites each regulatory requirement and the section in the CSWMP that references it.



1.5 Previous Clark County Solid Waste Management Plans

Solid waste planning in Clark County was initiated in 1967 with the adoption of the county's first *Solid Waste Management Plan*. The county adopted updates to the plan in 1973, 1981, 1985, 1994, 2002, 2008, and 2015. The plan was also amended in 1986, 1988, and 2006 to address focused needs.

In addition to the *Solid Waste Management Plan*, the original *Moderate Risk Waste Management Plan* was prepared for Clark and Skamania counties and was adopted on Dec. 14, 1988. The *Moderate Risk Waste Management Plan* was amended in May 1991, July 1991, July 1992, September 1992, and March 1994. The two counties prepared separate plans when the *Clark County Moderate Risk Waste Plan* was incorporated as a chapter in the *Clark County Solid Waste Management Plan* (2002, 2008, and 2015 updates).

In 2019, the Washington Legislature directed local jurisdictions to develop a plan to reduce recycling contamination. Clark County went through the amendment process, formally adding the *Clark County Contamination Reduction and Outreach Plan* (CROP) as an appendix to the currently adopted plan in 2021. The CROP includes strategies to increase efforts to reduce recycling contamination.

This plan revision incorporates the CROP and *Moderate Risk Waste Management Plan* into the body of the plan, making it a more comprehensive plan. This CSWMP is the most current plan for Clark County's rapidly changing solid waste system and replaces all previous plans.

1.6 Relationship to other plans

State of Washington

Washington State, through Ecology, is required under chapter 70A.205 RCW to develop and maintain a long-range plan for the management of solid waste. The goals and policies expressed in the state plan establish the framework upon which solid waste systems are to be administered and implemented throughout the state. Local plans should be consistent with these goals and policies unless these management approaches are superseded by new state laws, regulations, or plans.

State Solid and Hazardous Waste Plan—Moving Washington Beyond Waste and Toxics, was originally issued in November 2004 and updated in 2009, 2014, and 2021. The vision of the plan outlines the goal of transitioning 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 state plan challenges programs across the state to target toxins for elimination within one generation. The most recent version maintains a sustainable materials management approach.

Additional state level plans referenced in the development of the updated Clark County CSWMP include the ***Use Food Well Washington*** plan which offers a roadmap to a more resilient food system as well as the ***Washington State Recycling Contamination Reduction and Outreach Plan*** which outlines a statewide action plan to reduce recycling contamination. The vision, goals, and recommendations made in the abovementioned plans are being incorporated into this CSWMP and will be included in program opportunities during the upcoming five years.

Local plans and ordinances

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

The CSWMP goals and policies must comply and coordinate with the goals and policies of Clark County and participating jurisdictions including:

- ***Clark County Comprehensive Growth Management Plan***
  - This plan includes the required elements such as rural and natural resource elements (chapter 3), floodplains (chapter 4), capital facilities plan (chapter 6), and the shoreline management plan (chapter 13)
- ***Clark County Comprehensive Emergency Management Plan***
- ***Clark County Stormwater Management Plan***
- ***City of Vancouver Water Resources Protection Ordinance***
- ***Regional Disaster Debris Management Plan***

1.7 Participating jurisdictions

State law assigns solid waste planning authority to individual local governments (RCW 70.205.040) and requires each county in the state to prepare a plan in cooperation with cities and towns within that county.

Cities and towns may choose from the following three options to meet their planning requirements:

- Prepare and deliver to the county auditor of the county in which it is located its plan for its own solid waste management for integration into the comprehensive county plan;
- Enter into an agreement with the county pursuant to which the city shall participate in preparing a joint city-county plan for solid waste management; or
- Authorize the county to prepare a plan for the city's solid waste management for inclusion in the comprehensive county plan.

In Clark County, it is generally agreed that developing, financing, and managing a regional solid waste system, as an independent jurisdiction, benefits the residents of Clark County. Local governments that wish to continue participating in the regional solid waste system and adopt the CSWMP sign interlocal agreements (Appendix D) with Clark County to authorize the county to prepare the plan.

After the preparation of the CSWMP, participating jurisdictions will formally consider the adoption of the CSWMP through local resolutions of adoption. Once adopted, the cities and town continue to review and provide input into county solid waste program annual priorities, project work plans, publications, and proposed annual budgets. The cities of Battle Ground, Camas, La Center, Ridgefield, Vancouver, Washougal, and the town of Yacolt have historically adopted the plan and it is anticipated that the relationship will be maintained with this new revised CSWMP. The city of Woodland, a small portion of which lies in northwest Clark County and the remainder in Cowlitz County, is participating in *Cowlitz County's Comprehensive Solid Waste Management Plan*.

1.8 The Solid Waste Advisory Commission

Clark County's SWAC was originally formed in 1977 by Clark County Ordinance 1977-10-2 and remains an active commission per the provisions of chapter 70A.205 RCW. This ordinance, as modified over time, has been codified as Clark County Code Chapter 24.12.

Clark County's SWAC currently consists of 10 members appointed by the county council and represents the following interests:

- Agriculture
- Business community
- City of Vancouver
- Community at large
- North county
- Public interest groups
- Small cities and towns
- Solid waste management industry
- Southeast county
- Southwest county

The commission advises the county council on solid waste matters including:

- Helping develop programs and policies concerning solid waste handling and disposal and reviewing and commenting on proposed rules, policies, or ordinances prior to adoption.
- Participating in current solid waste planning and development of future Solid Waste Management Plans.
- Investigating new developments in solid waste management practices and recommending further investigation or adoption of the practices, which will improve local solid waste management.
- Recommending to the Clark County Council and CCPH appropriate and necessary solutions to solid waste problems as may be presented by local citizens, private industry, or others.
- Advising CCPH in evaluating applications for permits for solid waste handling facilities and disposal sites.
- Advising the county council or county staff in other specific solid waste matters, such as designing or siting solid waste facilities as directed by the board on a project-by-project basis.
- Maintaining communication with the citizens represented by each member to further public information and citizen input.
- Encouraging, supporting, and promoting the reduction, recovery and reuse of resources contained in solid waste.

For additional information on the SWAC or to see meeting agenda and minutes, please visit the ***Clark County Solid Waste Advisory Commission webpage***. The SWAC bylaws are provided in Appendix P.

1.9 Regional Solid Waste System Steering Committee

Agreements between the county and the cities and town include language outlining the role of the RSWSSC. The role of the RSWSSC is to provide direction to the county concerning the development of the regional solid waste system, its infrastructure, and the implementation of the recommended priorities and programs outlined in the CSWMP. The RSWSSC provides recommendations to the county on matters such as contracts, budgets, resource sharing, system analysis and improvements, and public education, outreach, and marketing. The RSWSSC reviews the priorities for waste reduction and waste recycling outlined in the CSWMP to assure that these priorities are incorporated in the budget proposals and work programs of member organizations, to assess the results of programs and projects, and to assure that future infrastructure needs are addressed through operational practices and procedures. The RSWSSC maintains regular communication with the Clark County SWAC and elected officials. The RSWCC bylaws are provided in Appendix Q.

1.10 Administration

This section looks at the administrative roles of jurisdictions for solid waste management in Clark County. Enforcement related issues, including a review of solid waste regulations which govern local government, the solid waste industry, and solid waste generators, are provided in Chapter 3: Enforcement. Background information for Clark County including demographic and economic information is available in Chapter 2: The planning area.

Regulations governing local government

State of Washington

Washington State law chapter 70A.205 RCW requires counties to prepare and update a 20-year solid waste management plan, including plans for solid waste handling facilities, programs to reduce the amount of waste generated, incentives for source separation, residential recycling collection, education, promotion of waste reduction and recycling, and plans to manage moderate risk waste. Ecology enforces the planning requirement, in part, through the distribution of grant funds for projects which help implement the plan. State laws RCW 36.58, 35.21, and 81.77, regulate how cities and counties contract for solid waste services and how they generate revenues to fund solid waste management activities. Refer to Chapter 11: Funding and financing solid waste infrastructure and operations, to review funding options.

State of Oregon

All out-of-state local government jurisdictions that use Oregon solid waste disposal facilities must comply with Oregon statutes. As users of Oregon facilities, the Clark County regional solid waste system must also meet the applicable Oregon recycling requirements. In 1983, Oregon Revised Statute (ORS 459) required source separated curbside collection for residents. The law was updated in 1991 (ORS 459A) with additional requirements for curbside collection and education, including curbside recycling, the expansion of the promotion/education of recycling programs, and requirements for multi-family facilities to provide recycling options. The law was also amended in 2021 with the passage of the Plastic Pollution and Recycling Modernization Act (Senate Bill 582). The new law became effective on Jan. 1, 2022, and recycling program changes are enforceable July 2025.

Administrative roles

Local governments, collection, disposal and processing companies, regulatory agencies, and a variety of other businesses, agencies, and organizations work together to manage solid waste in Clark County. The administration is a cooperative effort between city and county elected officials, county and municipal staff, and state agencies. A summary of this information is available in Table 1.10.1.

Table 1.10.1 Solid waste roles and responsible agencies

Solid Waste Roles	Responsible Agencies	
Administration	**Primary**	**Secondary**
Regional plan	Clark County	Cities, Ecology, WUTC, SWAC
Regional coordination	Clark County	SWAC, Cities, neighboring jurisdiction
Long-term safe disposal (includes transfer & transport)	Clark County	Ecology, SWAC, Cities
Moderate risk waste collection & disposal	Clark County	
Monitor closed landfills	Clark County	Ecology
Coordinate regional waste reduction education & promotion	Clark County	Cities, neighboring jurisdictions
Regional MRW education	Clark County	Cities
Local education & promotion	Clark County, Cities	
Environmental assistance to businesses	Clark County, Cities	
Garbage collection administration	WUTC, Cities	Clark County
Recycling collection administration	Clark County, Cities, WUTC	
Recyclables processing	Clark County	
Local clean-ups, seasonal collections	Cities, Clark County	
Solid Waste management data & reports	Clark County, Cities	Ecology
Development of new solid waste programs	Clark County, Cities	Ecology
Siting of solid waste handling facilities	Clark County, Cities	Ecology
Plans for potential recovery or disposal of disaster-related debris	Clark County, Cities, neighboring agencies (i.e., Metro, DEQ)	

Clark County Public Health Solid Waste Enforcement Program

The Environmental Public Health Division within CCPH carries the responsibility of enforcing many solid waste regulations and programs within Clark County. CCPH is mandated to assure compliance with certain state and local regulations such as Chapter 173-304 WAC, 350, and 351, Clark County Code 24.12, and certain regulations and codes of the county and municipalities.

To meet this mandate, the Solid Waste Enforcement program:

- Administers permit system for solid waste facilities such as landfills and transfer stations.
- Enforces the state's Solid Waste Handling Standards, including handling of municipal and industrial sludges and petroleum-contaminated soils.
- Enforces county code for regulations on solid waste, hazardous waste, and biomedical waste.
- Responds to complaints regarding illegal dumping, burying, and accumulations of waste on private property.
- Contributes updates to the county's CSWMP.

Clark County Public Health Solid Waste and Recycling Programs

The Solid Waste Education and Outreach and Solid Waste Operations programs manage the long-term solid waste planning and facility management within Clark County. Through this authority, the county provides regional coordination, regional services, services to cities, towns, and other agencies, and local services in the unincorporated areas of the county.

Solid Waste Education and Outreach:

- Promotes waste reduction, recycling, and composting through a variety of educational efforts across the county.
- Provides technical assistance and education on proper moderate risk waste management and related topics to residents, businesses, and schools throughout the county.
- Tailors outreach campaigns and educational information through the Composter Recycler, Green Business, Green Neighbors, and Green Schools programs.
- Provides contract administration services.

- Partners with City of Vancouver and Waste Connections to deliver messaging countywide.
- Contributes waste reduction, education, and promotion updates for the county's CSWMP.

Solid Waste Operations:

- Prepares and updates the county's CSWMP.
- Works with over 30 public and private agencies to coordinate solid waste management activities, including the SWAC and RSWSSC.
- Contracts for long-term disposal of waste generated throughout the county and for household hazardous waste collection and disposal.
- Oversees, monitors, and negotiates the contract with Columbia Resource Company (CRC) to operate transfer stations and the materials recovery facility (MRF).
- Supervises maintenance and monitoring of two closed landfills in Clark County.
- Contracts for recycling collection programs in unincorporated areas, including residential curbside and multi-family recycling collection, and yard debris collection.
- Plans for potential recovery or disposal of disaster-related debris.

Southwest Washington Clean Air Agency

The Southwest Washington Clean Air Agency (SWCAA) is responsible for enforcing federal, state, and local outdoor air quality standards and regulations in Clark, Skamania, Lewis, Wahkiakum, and Cowlitz counties. SWCAA regulates the emissions from incinerators and landfill gas collection control systems as well as implements the ban on outside burning in the nonattainment areas of the county. This burn ban is described in the Chapter 3: Enforcement.

Washington State Department of Ecology

Ecology is the state agency responsible for oversight of solid waste management. Since the passage of the first Solid Waste Management Act in 1969, the focus of solid waste laws and regulations in the state has evolved from the closing of open burning dumps to the current implementation of a comprehensive statewide management plan, ***The State Solid and Hazardous Waste Plan – Moving Washington Beyond Waste and Toxics***, that relies on sophisticated management strategies. The state retains authority for setting standards for solid waste handling systems, while operations and management responsibilities are delegated to local governments. Ecology controls compliance with chapter 70A.205 RCW and WAC 173-304 and 173-350 through its review and approval of solid waste management plans and facility permits. Regulatory authority over permitted solid waste handling facilities is delegated by the state to local jurisdictional health departments. Ecology retains statutory enforcement jurisdiction for conditionally exempt solid waste handling facilities. Approval of permits by local health departments may be appealed by Ecology to the Washington Pollution Control Hearings Board.

Washington Utilities and Transportation Commission

The WUTC regulates solid waste rates and services under chapter 81.77 RCW through the issuance of certificates entitling private or investor-owned companies to provide solid waste collection services of a certain type — garbage, refuse, and demolition waste — within specified geographic areas of the state. Under chapter 81.77 RWC, the authority of the WUTC is limited to the collection of solid waste from generators and does not extend directly to the regulation of hauling solid waste from transfer stations.

The WUTC also regulates the collection of source separated recyclable materials from residences if the local government does not contract for that service. The Washington state solid waste statutes do not give the WUTC the authority to regulate the collection or transportation of recyclable materials from drop boxes or buy-back centers, nor do the statutes provide authority for regulating the collection of recyclables from commercial or industrial generators. Transportation of these materials is regulated under chapter 81.80 RCW or is taken on by the cities. Although the WUTC does have the authority to regulate this transportation, this authority is not exclusive.

System-related contracts

The county and cities have entered long-term contracts with private service providers for solid waste related services. The contract between Clark County, the City of Vancouver, and Columbia Resource Company (CRC) gives CRC responsibility for developing and operating transfer stations and a recycling processing facility. The contract is for the processing and marketing of residentially collected recyclables and transfer, transport, and landfill disposal of wastes at the Finley Buttes and Wasco Landfills in Eastern Oregon. CRC is a wholly owned subsidiary of Waste Connections of Washington (Waste Connections). More information about this contract is available in Chapter 9: Solid waste collection as well as Chapter 10: Transfer and disposal.

The county and the cities and town have entered other contracts with Waste Connections for the collection of residential recyclable materials and yard debris. Some cities contract for garbage collection if this is not done through municipal crews or state franchises. Additional contracts have been entered into for the recycling and disposal of household hazardous waste (HHW). More information about these contracts is available in Chapter 7: Moderate risk waste.

Post-closure agreements

Closed and abandoned landfills are present throughout the state and pose potential risks to human health and the environment. In Clark County, closed landfills are managed through post-closure agreements that are specific to the location.

The Disposal Agreement: An agreement between Clark County, the City of Vancouver, and the Leichner Brothers Land Reclamation Corporation establishes responsibilities for closure, post-closure maintenance, and groundwater remediation of the closed Leichner Landfill.

The Settlement Agreement: An agreement between Clark County, the City of Vancouver, Clark County Disposal Group companies, and WUTC. The agreement establishes funding channels for closure, post-closure maintenance, and remediation activities at the Leichner Landfill.

Other Closed and Decommissioned Landfills: The county contracts for landfill gas monitoring and groundwater monitoring at the closed English Pit Landfill. The Rufener Landfill has been inactive for more than a decade and has been closed and decommissioned.

For more information on closed and abandoned landfills in Clark County, refer to Appendix G.

1.11 Process of updating the plan

Plan amendments and revision

RCW 70A.205.075 requires all counties in the state to prepare a 20-year comprehensive solid waste management plan. This CSWMP is prepared per the requirements and intent of chapter 70A.205 RCW and Ecology's ***Guidelines for the Development of Local Solid Waste Management Plans and Plan Revisions***. As required, this CSWMP has been developed in association with cities and towns located in the county. The CSWMP is required to be reviewed at least every five years to assess if the plan reflects the current state of the local solid waste system, including long-range handling and financing needs. Keeping the plan updated helps ensure that permits, grants, and services can be administered effectively. Near the end of the five-year period, or when Ecology deems an update is necessary, it should be determined whether an amendment or a revision is appropriate. A brief description, examples, and the process for these two types of updates are outlined below.

Amendments

Participating cities and towns and/or the county may elect to amend the CSWMP prior to a full plan update. Amendments are additions to an existing program or changes that implement a new program rather than a redefinition of the planning vision. Consequently, amendments do not need to undergo as extensive of a review and adoption process.

Examples of reasons for a plan amendment include:

- Changing the designated recyclables list.
- Adjusting implementation schedules.
- Changing the priority of alternative strategies and/or projects.
- Making changes to levels of service that do not significantly affect the cost to collect and dispose of solid waste.
- Updating the priorities of the plan based on the results of a previously pending feasibility study.
- Major residential or commercial development or the emergence of a new major industry.

The process to amend this CSWMP is initiated when a city, town, or the county requests an amendment to the existing plan. CCPH Solid Waste & Recycling program staff begin the internal amendment process which is then submitted to SWAC and RSWSSC for review. If the decision to move forward with the amendment is approved, the amendment is submitted to Ecology within 45 days for approval. Ratification of the amendment is finalized by the legislative bodies of jurisdictions that are signatories to the plan.

Plan revisions

Plan revisions, such as those that undertake actions outside of the five- or 20-year plans or alter the goals of the CSWMP, go through a full approval process (all cities and towns, Ecology, and county council) and require a new or revised Washington Utilities and Transportation Commission (WUTC) cost assessment.

Examples of situations requiring a plan revision include:

- A major shift in the level of service in a program that is not specified in the plan, such as the addition or subtraction of curbside collections.
- Closure of a local landfill and a transition to long haul.
- Development of a new public or private transfer or disposal facility.
- Regionalization between previously independent planning entities.

When the current plan receives final approval from Ecology (projected to be in 2025 for this plan) that begins the five-year period before another required review. This CSWMP should be reviewed again in 2027 to allow time for a revision, if necessary, with a goal of adopting an updated plan by 2029.

Plan development and adoption process

The Clark County CSWMP ongoing planning process incorporates the Ecology recommended phased approach. This process includes plan review, development of scope of work and definition of responsibilities, involvement of SWAC and RSWSSC, development of a preliminary draft, public comment and Ecology review, response to public comments and completion of the SEPA, adoption of the CSWMP and final Ecology review, approval and implementation, and maintenance of the CSWMP.

During the current revision, Clark County Solid Waste and Recycling program added an additional step by providing draft chapter documents to SWAC and RSWSSC for initial comment prior to developing the preliminary draft. Once comments were received, reviewed, and incorporated where applicable, draft chapters were compiled into a preliminary draft for formal SWAC and RSWSSC review. The final preliminary draft was then completed and submitted for Ecology review and available for public comment.

The preliminary draft plan is also submitted to the WUTC for evaluation for collection rate-making purposes. When applicable, revisions are made to the CSWMP to reflect comments received from the WUTC.

The CSWMP is then reviewed and adopted in public meetings by the participating cities/town per the interlocal agreements with those jurisdictions. The CSWMP is then adopted by the county council in a public hearing.

1.12 Planning issues

What opportunities exist for statewide collaboration?

As part of a statewide effort, Clark County will work with Ecology and other partners to explore strategies and solutions in addition to education and outreach. These could address regional planning, operations and collection, contracting, incentives, pricing, policies, mandates, and enhanced data collection. Based on this evaluation, Clark County Solid Waste and Recycling will identify and pursue the most promising initiatives.

These options may include, but are not limited to:

- Regional planning and aligned or joint contracting for services to harmonize messaging, lower program costs, and improve program performance.
- Evaluating the costs and benefits of operational changes, including collection frequency, level of source separation at the curb, and innovative drop-off container designs on contamination levels and overall program performance.
- Product bans or restrictions.
- Strengthening contracts with haulers and MRFs to include provisions focused on reducing contamination, collecting, and reporting data on program performance, and ensuring materials on the accepted materials list are responsibly recycled.

1.13 Organization of the plan

Chapters of this plan include a common structure:

Introduction

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

Conditions assessment

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

Existing programs

Descriptions of the existing programs that support the focus outlined in the chapter including updates to ongoing programs and identified gaps.

Planning issues

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

2

THE PLANNING AREA

2.1 Introduction

This chapter discusses basic information on the geography and demographics as well as the amount and composition of solid waste in Clark County. The planning area includes the incorporated and unincorporated areas of the county. This includes the cities of Battle Ground, Camas, La Center, Ridgefield, Vancouver, Washougal, and the town of Yacolt.

2.2 Description of the planning area

General information

Clark County, with an estimated 2023 population of 527,400, is the southernmost county in the state of Washington. The county lies within a geographic basin created by the Cascade and Pacific Coast mountain ranges. The Cascade Range makes up the eastern boundary with the Lewis River to the north and the Columbia River making the western and southern border. The climate in the county is influenced by this geography which produces mild wet winters and moderately dry summers. Annual rainfall averages 41.3 inches a year with about 70 percent of the annual precipitation between the months of November and March. The average high temperature in July is 79.9°F and the average low temperature in January is 33.7°F. The marine influence of the Pacific Ocean contributes much to the temperate climate.

The area is physically compact, measuring approximately 25 miles across in either direction encompassing 656 square miles. The county is made up of six cities and one town with areas that remain unincorporated. When defining the planning area, note that while Woodland crosses into the Clark County boundary, it is not included in the planning area as Woodland is incorporated into the Cowlitz County solid waste management system. More information about Clark County can be found at the ***Clark County GIS website***.

Population demographics

The region's six cities and one town account for an estimated 54.5% of the population in 2023 while the remaining 45.5% remains unincorporated. Population data for the cities, town, and unincorporated areas of Clark County are provided in Table 2.2.1.

Table 2.2.1: Population estimates per city/town

Year	2020 Census	2021 Estimate	2022 Estimate	2023 Estimate	2023 % total
Clark County	**503,311**	**513,100**	**520,900**	**527,400**	**100.0%**
Unincorporated	233,048	236,200	237,650	240,155	45.5%
Incorporated	270,263	276,900	283,250	287,245	54.5%
Cities and town					
Battle Ground	20,743	21,160	21,780	21,910	4.2%
Camas	26,065	26,870	27,250	27,420	5.2%
La Center	3,424	3,605	3,835	3,890	0.7%
Ridgefield	10,325	11,910	13,640	15,180	2.9%
Vancouver	190,915	194,400	197,600	199,600	37.8%
Washougal	17,039	17,200	17,390	17,490	3.3%
Woodland (part)	84	85	85	85	0.0%
Yacolt	1,668	1,670	1,670	1,670	0.3%
Total cities and town					**54.5%**

Washington State Office of Financial Management

https://ofm.wa.gov/sites/default/files/public/dataresearch/pop/april1/ofm_april1_population_final.pdf

Current population and demographic information for the county is maintained on the ***Clark County Demographics data story map*** including race, ethnicity, age, language spoken, disabilities, and housing. This data is analyzed to inform programmatic efforts and needs to ensure equitable access to programs and services.

Population and waste generation projections

In addition to population demographics, population growth estimates are considered when looking forward to the next 20 years of service needs. As part of the Regional Solid Waste Systems Study (see section 2.3 below), population growth in the county was evaluated. The anticipated growth projects for a notable increase in the amount of solid waste generated and received at the transfer stations. Forecasts for the population growth by region and associated amount of waste generated was included in chapter 2 of the Regional Solid Waste System Study (Appendix I).

2.3 Regional Solid Waste System Study (Regional Systems Study)

In 2019, the county engaged an independent consultant team to conduct a comprehensive review of the regional solid waste system. This team, working with county staff, the cities and town within Clark County, Solid Waste Advisory Commission (SWAC), and the Regional Solid Waste System Steering Committe (RSWSSC), assessed the conditions of existing facilities, established needs and opportunities to improve current operations, and identified the improvements necessary to serve the county for the next 20 years. The study and report occurred over multiple phases.

Phase 1, completed in October 2021, provided a comprehensive assessment of the Clark County transfer stations and recycling infrastructure. It identified improvements needed in the current infrastructure and investments necessary to provide the capacity to manage waste over the next 20 years. It also included an evaluation of alternatives for serving fast growing areas of the county, a feasibility analysis for a new materials recovery facility, and thorough financial analysis of the current cost of services.

Phase 2, completed in July 2023, completed facilities planning to determine investments needed and prepare a plan for capital improvements to the system. The phase 2 report (Appendix I) included updates to population data and projections, considerations for new laws (e.g., HB 1799 concerning organic management), and further details on the options, recommendations, and decisions around addressing the identified needs.

Evaluation of ownership

One element of this study, completed in conjunction with phase 2, focused on future ownership of solid waste facilities, which consists of three transfer stations and the material recovery facility. The long-term operation contract with Columbia Resource Company included a condition that the county, working in concert with the cities and town, could purchase the three transfer stations in the future for one dollar per location. The consultant team evaluated several options for public and private ownership and operations, listing the advantages and disadvantages of each, for consideration by the county, cities, and town. The findings were consolidated into a separate ***ownership report***.

The following list identifies the options for establishing a multi-jurisdictional organization that can manage solid waste services and the related codes.

- Interlocal Cooperation Act (ICA) — RCW 39.34
- Joint Municipality Utility Services (JMUS) — RCW 39.106
- Metropolitan Municipal Cooperation (MMC) — RCW 35.58
- Disposal District — RCW 36.58

At the time this CSWMP was submitted for approval, the county, cities, and town are still evaluating their options for determining whether public ownership is the best alternative, and if so, which strategy meets their long-term needs for managing solid waste and recycling services in the future. A decision on this issue is expected within the next five years. Therefore, certain recommendations have been adopted as part of this CSWMP as detailed in the following chapters.

2.4 Quantity and characterization of solid waste

The quantity and characterization of solid waste can be impacted by various factors including population growth and urbanization, consumption patterns, education and outreach programs, waste management practices and services, and changes to regulations. The impact of these factors creates challenges to data collection, interpretation, and application of the data collected.

In addition to the extraneous variables, data changes frequently and seasonally. During this revision of the CSWMP, it has been decided that data will be limited within the body of the plan while trends will be provided for analysis. Considering the length of time it takes for a plan to move from revision to adoption, the most current data on tonnage and projections will be provided in an appendix for reference to prevent delays in adoption. Refer to Appendix N: Clark County municipal solid waste data.

Clark County Solid Waste and Recycling programs are working on updating our data reporting requirements through contract negotiations as well as managing contracts for residual waste studies and waste characterization studies. Additionally, as the agency identified to lead the planning process, the county will put forth efforts to create a system for increased data accessibility and transparency over the next planning period.

3

ENFORCEMENT

3.1 Introduction

Enforcement activities support the implementation of policies developed and documented in the CSWMP. This chapter reviews solid waste regulations, which oversee local governmental programs, the solid waste industry, and solid waste generators in Clark County.

The enforcement goals of Clark County's solid waste programs are:

- To ensure **Clark County continues to be a healthy, clean, and livable community** by promoting proper storage, transfer, and disposal of solid waste by both public and private sectors through education and, if necessary, enforcement.
- To **maintain an institutional framework** that delineates the roles and responsibilities of the various enforcement agencies and ensures that the framework facilitates interjurisdictional cooperation, communication, and the orderly, cost-effective, and environmentally sound management of the solid waste system.
- To ensure agencies with the authority to implement solid waste rules and regulations **function responsibly and efficiently**.
- To ensure **adequate monitoring and proper handling procedures** are in place for managing various types of solid waste materials generated in Clark County.
- To ensure agencies charged with implementing and enforcing solid waste rules and regulations are **staffed, funded, and managed cost-effectively**.

3.2 Regulating agencies

Several entities are responsible for surveillance and enforcement of solid waste management requirements within Clark County including Clark County Public Health, Clark County Code Enforcement, the cities and towns of Clark County, Ecology, SWCAA, and WUTC.

The following sections present the authorities of the regulating agencies and the regulations which apply. Table 3.2.1 provides a summary of regulating agencies and the regulated parties including references the related regulations. Cities and counties must set local requirements that are at least as strict as state standards. Appendix F offers a comprehensive list of regulations that impact the management of solid waste.

Table 3.2.1: Solid Waste Enforcement Roles in Clark County

Regulated Parties	Regulations	Enforcement Agencies
Solid Waste Industry		
Collection	RCW 81.77, WAC 480-70, City & County Contracts & Ordinances	WUTC, County, Vancouver, Camas, Washougal, Ridgefield, Battle Ground
Handling Operations & Facilities (disposal/transport)	County & City land use regulations WAC 173-350, WAC 173-351	County, Cities, Ecology
Waste Generators		
	City "mandatory solid waste" and recycling ordinances	Cities
	County & Cities ordinances	County, Cities
	Burn ban	SWCAA
	Hazardous material handling	Ecology
	Industrial waste regulations	Ecology
	Biomedical Waste Regulations	Ecology
	RCRA Subtitle D	EPA

Clark County

Code Enforcement: The Code Enforcement division within Clark County Community Development enforces Title 9.24 of Clark County Code which specifically outlines public nuisances in the urban and rural areas of unincorporated Clark County.

- **Nuisance complaints.** Code Enforcement receives and investigates complaints regarding the outside accumulation of trash, junk, debris, abandoned or unused materials, objects, or equipment when visible from a public roadway or adjacent property. Offending property owners can be issued a Notice & Order which carry daily penalties for non-compliance.

Public Health Solid Waste Enforcement: The Environmental Public Health Division within CCPH carries the responsibility of enforcing many solid waste regulations and programs within Clark County. CCPH is mandated to assure compliance with certain state and local regulations such as WAC 173-304, 350, and 351 as well as Clark County Code (CCC) 24.12 and certain regulations and codes of the county and municipalities.

CCPH's enforcement responsibilities extend to the following areas of solid waste management:

- **Solid waste nuisance complaints:** CCPH receives and investigates public concerns regarding improper storage of solid waste visible from public access right of way. They have the authority to issue Notice of Violations and Notice & Orders to obtain compliance in the appropriate jurisdiction.

- **Solid waste facilities:** CCPH issues, renews, and when necessary, suspends or revokes solid waste handling permits and conducts routine inspections of both permitted and conditionally exempt solid waste handling facilities. Inspections ensure that facilities meet permit requirements and do not create public health problems, nuisances, or environmental contamination. Schedules for corrective or remediation actions are established by CCPH for those facilities which are not in compliance. All permits must conform to the Clark County CSWMP and the state's Solid Waste Handling Standards (WAC 173-304 and 173-350).

- **Landfills:** CCPH's responsibilities for processing and evaluating permits for solid waste disposal facilities are defined in RCW 70A.205.130. These state regulations require jurisdictional health departments to evaluate solid waste permit applications for their compliance with all existing laws and regulations and their conformance with the CSWMP and all zoning requirements. Ecology's review and appeal process for a permit issued by CCPH is explained in RCW 70A.205.130. CCPH inspects all (active and closed) landfills in Clark County at least twice a year for compliance with state (chapter 173-304 WAC and 173-350), local and county regulations.

- **Special wastes:** CCPH assures compliance with state, local, and county regulations on handling, storage, transport, and disposal of biomedical wastes, moderate risk waste (MRW) including waste oil, and other special wastes.

Cities and towns

The six cities and one town within Clark County have varying administrative roles. Cities can manage their own collection contracts or can join the shared Clark County contract. Cities that manage their own contracts are responsible for enforcing compliance with their collection regulations by all residential and commercial collectors operating within the city. Clark County manages contracts for cities that participate in a shared contract. Some cities include mandatory garbage ordinances in which all residents are required to pay for solid waste collection services, whether they use solid waste collection services or not. In each jurisdiction, the city's code compliance staff enforces against solid waste nuisance violations. All jurisdictions hold periodic cleanup events within their borders.

Table 3.2.2: Cities and town administrative roles for residential collection services

	Battle Ground	Camas	La Center	Ridgefield	Vancouver	Washougal	Yacolt
Local SW collection ordinances							
Mandatory or subscription-based garbage	S	M	S	M	M	M	S
Collection service contracts							
Garbage	W	C	W	C	C	C	W
Recycling	C	C	CC	C	C	C	CC
Yard debris	CC	C	CC	-	-	C	CC
Organics	-	-	-	C	C	-	-

S Subscription-based garbage collection M Mandatory garbage collection

CC Provided by Clark County W Provided by WUTC C Provided by city/town

State and regional authorities

Southwest Clean Air Agency: SWCAA has the responsibility of monitoring the emission of air contaminants from sources in Clark County. In terms of solid waste management, this agency monitors emissions from landfills (including some closed landfills), recycling/transfer facilities, composting sites, and contaminated soil sites. SWCAA also issues air permits for equipment (crushers/grinders) that are utilized at conditionally exempt solid waste handling facilities that process inert materials on-site. Additionally, SWCAA regulates friable asbestos handling and open burning in the County.

Washington State Department of Ecology: RCW 70A.205 gives Ecology the authority to promulgate solid waste regulations, review and appeal facility permits, and approve solid waste management plans. Facility permitting regulations are outlined in WAC 173-350, Solid Waste Handling Standards. WAC 173-350 specifies that certain solid waste facilities are exempt from solid waste permitting if they meet requirements and operating procedures as identified in the rule. These facilities include recycling, materials recovery, composting, inert wood waste, and some moderate risk waste handling activities. Ecology is the lead regulatory agency for conditionally exempt solid waste handling facilities. Municipal solid waste regulations are found in WAC 173-351, Criteria for Municipal Solid Waste Landfills. Jurisdictional health agencies have the

authority to permit solid waste handling facilities that are designated in county solid waste management plans.

Washington Utilities and Transportation Commission: The WUTC regulates the collection and transport of solid waste in all unincorporated areas throughout the state and within incorporated areas that do not assume jurisdiction for the regulation of solid waste. Certificates are issued by the WUTC allowing private or investor-owned collection companies to operate in a specified area, at a set rate or tariff for various services, and under certain service conditions. The WUTC's enforcement mechanisms include fines and the revoking of a private collector's right to collect solid waste. The WUTC also enforces against companies that illegally provide solid waste collection services without a certificate. Solid waste collection is regulated under RCW Chapter 81.77.

3.3 Regulated parties

Regulations governing solid waste management in Clark County apply to the solid waste industry and individual generators. This section briefly summarizes the regulations pertaining to each of these segments and notes which agencies are currently enforcing the regulations. Additional information on many of the following regulations can be found in later chapters.

Regulations governing the solid waste collection industry

RCW 81.77 and chapter 480-70 WAC authorize WUTC to regulate solid waste collection. There are two exceptions to WUTC regulation that apply in Clark County. Collection within those cities that have assumed jurisdictions for the regulation of solid waste (Vancouver, Camas, Washougal, and Ridgefield), and within counties or cities that have assumed jurisdiction for the regulation of residential recycling collection.

Clark County has assumed jurisdiction for such regulations and contracts with Waste Connections for residential recycling and yard waste collection. The state regulates rates, services, and reporting. Haulers that collect within the cities of Vancouver, Washougal, and Ridgefield are regulated through collection contracts and ordinances maintained by those cities. City and county contracts address similar issues as well as how and where to deliver the collected waste. Camas is the only city providing municipal collection services. The City of Vancouver licenses commercial recycling services providers.

Designated disposal sites

The county is authorized by RCW 36.58 to designate disposal sites for all solid waste collected in the unincorporated area of the county. Chapter 9.32 of the Clark County code recognizes this authority, and the CSWMP designates the three transfer stations in the county as disposal sites, with the Finley Buttes Landfill and Wasco Landfill (on a limited basis) being the final disposal sites. The county's recycling, transfer, transport, and out-of-county disposal contract with CRC, a wholly owned subsidiary of Waste Connections, states that waste collected by Waste Connections or an affiliate within Clark County will be delivered to the designated facilities.

The county has also entered interlocal agreements with the cities and town which include provisions that waste will be delivered to the designated facilities.

The only exception to this is the waste collected by Waste Control, Inc. in northwest Clark County. County solid waste regulations recognize that self-hauled wastes, recyclable materials, and non-residential generated recyclable materials are exempt from being directed to the designated disposal site (exempted by RCW 81.77).

Illegal hauling

Solid waste hauling is regulated by either the WUTC or by the cities and town that have assumed jurisdiction. Enforcement of these hauling regulations is performed by the respective entities. Solid waste within our solid waste system should be hauled by Waste Connections and should be taken to county designated transfer facilities. Exemptions to these regulations are loads that are self-hauled or classified as occasional/incidental transport. Recovered or recycled materials can be hauled by a registered recycling hauler and must be taken to a facility where the materials are recovered.

Regulations governing solid waste handling operations and facilities

Solid waste facilities and operators are subject to the state's Solid Waste Handling Standards, WAC 173-350, which are enforced by local public health agencies through a solid waste handling facility permit system. Facility siting is regulated by both state siting standards and county or city land use ordinances, which may require conditional use permits for solid waste facilities. Disposal facilities are subject to additional regulations, including long-term monitoring (WAC 173-350 & 351). The state solid waste regulations that Ecology enforces result from state legislation, RCW 70A.205, and federal laws, such as the Resource Conservation and Recovery Act (RCRA), the Clean Water Act, the Clean Air Act, and others.

Regulations governing waste generators

The following outline specific activities that are regulated in Clark County.

Burial of waste: CCC 24.12.060 and city codes allow for the burial of wastes, which were generated on-site. This includes solid waste resulting from residential or agricultural activities as well as non-putrescible commercial or industrial waste. On-site burial of regulated waste such as hazardous waste, toxic waste, biomedical waste, and certain types of special waste is prohibited.

The ability to bury certain solid waste on-site results in problems such as health and sanitation problems, contamination of soils and/ or water, the attraction of vectors, settling of land into depressions, the discovery of unwanted buried material, and subsequent removal of wastes by new property owners.

Illegal dumping and abatement: Counties, cities, and towns conduct illegal dumping enforcement and abatement activities within their boundaries, including cleaning up dump sites, identifying offenders, and enforcing municipal codes on illegal dumping and private accumulations of materials. Illegal dump sites on public property are managed by the agency owning the property. Illegal dump sites on private property (including forestland) are the responsibility of the owner.

Litter control: To prevent littering, Clark County Code Chapter 9.32 Solid Waste Disposal requires all waste haulers, individuals, and businesses to cover waste being transported to county solid waste facilities. A surcharge can be levied for non-compliance. Ecology supports outreach efforts through the distribution of tarps and informational material at the transfer stations through the ***Secure Your Load campaign***.

Several cities, including the City of Vancouver, have ordinances that require residential generators to have garbage and recycling services, and all generators must comply with city codes (e.g., applicable Vancouver codes are VMC 6.12 and 5.62). This allows the city to resolve hauling compliance issues by enforcing requirements for hauling garbage and/or recyclables or on the generator that is contracting with the hauler. While not often utilized, it is an additional tool for the city.

Litter cleanup activities are also conducted by the Clark County Jail Services and municipalities, Ecology programs, and volunteer groups through the adopt a road and adopt a park programs.

Moderate and hazardous risk waste discharge: The county also regulates discharges of moderate and hazardous risk wastes through the National Pollutant Discharge Elimination System (NPDES) permit administered through the Clark County Clean Water Program. The water quality ordinance Chapter 13.26A prohibits the discharge of contaminants to storm drains, surface water, and groundwater. Prohibited discharges include spills of waste materials. The water quality ordinance also includes requirements for businesses and government agencies to use source control practices to prevent and control spills. Vancouver also has a water resources protection ordinance that regulates land use and operations (some related to waste) that could impact surface or groundwater.

Open burning: Open burning of waste is permanently banned within areas of Clark County. Permits are required for the open burning of the natural vegetation on the property outside of the no-burn area. SWCAA is responsible for regulating and enforcement burn bans in Clark County.

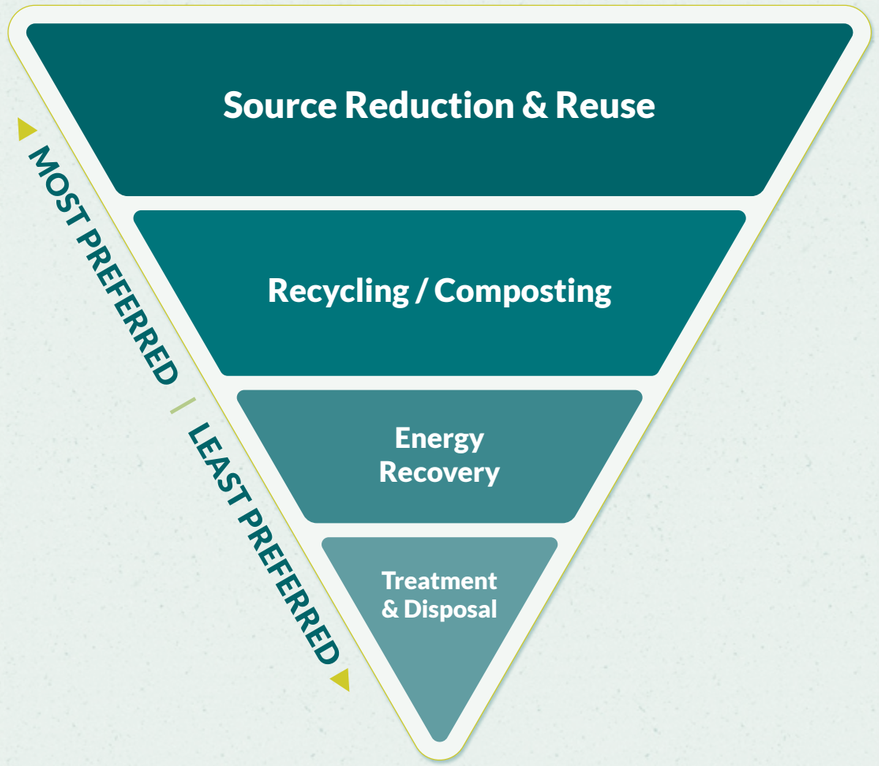
4

WASTE REDUCTION

4.1 Introduction

Waste reduction is defined as actions taken to either reduce or completely prevent the generation of waste before it happens. Waste reduction is recognized as the most environmentally preferred strategy in the EPA waste management hierarchy (Figure 4.1.1) as it has the greatest potential impact. It is preferred over recycling and composting because the social, environmental, and economic costs are typically lower for waste reduction. The state of Washington also identifies source reduction of waste as a fundamental strategy and a top priority for the solid waste management. As a result, chapter 70A.205 RCW states that waste reduction must become a fundamental strategy of solid waste management and is required to be included in all plan revisions.

Figure 4.1.1 EPA Waste Management Hierarchy



There are two primary reasons for promoting waste reduction: toxicity reduction and volume reduction. Reducing the toxicity of solid waste makes all solid waste management methods safer and helps develop public confidence in waste management methods. Volume reduction extends the useful life of existing and future facilities and conserves natural resources. There is also significant economic value to the avoided cost of disposal. From a waste management perspective, waste reduction is one of the most effective ways to address waste issues as reducing the amount of waste generated can lead to a decrease in costly disposal and recycling facilities, as well as collection programs to divert toxic or specialty materials.

This chapter on waste reduction and the following chapters on recycling and organics describe existing programs and plans for activities that reduce the amount of solid waste being generated or disposed of as municipal solid waste in Clark County. Chapter 4 discusses waste reduction methods that reduce the amount of waste being generated to begin with, while Chapters 5 and 6 discuss methods that reduce the amounts being disposed of at landfills.

4.2 Conditions assessment

In Clark County, there has been a continued trend in focusing and supporting waste and pollution prevention. The county, cities, and town continue to promote the concepts of reducing and reusing as primary actions to achieve the goal of waste reduction, especially given the difficulties in reducing waste through recycling alone.

Historically, waste reduction practices tend to place responsibility on individual actions by consumers. Campaigns like bringing your own shopping bag to the store have an impact, however, do not influence systemic change. Waste reduction is important in manufacturing and can be done by implementing extended producer responsibility principles into business models. Extended producer responsibility is an approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle. This is characterized by shifting the responsibility (physically and/or economically; fully or partially) upstream toward the producer and away from municipalities. This may include providing incentives to producers to consider environmental impacts when designing their products. Methods such as reducing packaging, redesigning products, and reducing toxicity can be utilized to reduce the amount of waste being generated. Lightweighting of packaging, reuse, and remanufacturing are all becoming more popular business trends.

Waste reduction at the consumer level can take many different forms including reusing or donating items, buying in bulk, and product stewardship. Purchasing products that incorporate these features supports source reduction. The county also recognizes that at the individual consumer level, pursuing a low-waste lifestyle as a consumer comes with many challenges and economic hardships. The current system encourages unnecessary consumption and then leaves responsible disposal up to the individual with little to no direction.

Solid waste outreach and education programs

A major function of the Clark County regional solid waste system is to provide education and coordinate outreach efforts to the residents, organizations, businesses, and schools in Clark County. This work is key to waste reduction and protecting the environment and public health, which are primary goals of the county's solid waste programs. Clark County Solid Waste Education and Outreach (SWEO) program staff work to educate the public on effective methods to reduce waste and recycle properly in Clark County. Specific information about recycling, organics, moderate risk waste, and miscellaneous materials will be discussed in Chapters 5, 6, 7, and 8.

Program development

When developing targeted outreach and education programs, the following considerations are made:

- Objectives of the program
- Demographics of the region
- Target audiences, especially in relation to types of programs to be implemented

Clark County outreach program staff and resources are organized by intended audiences (residents, schools, and businesses). When possible, existing resources and established relationships with community groups and partners will be utilized to ensure cost effective and meaningful program outcomes.

Below are examples of the methods that education and outreach staff use to deliver information and interact with the community.

Community classes and workshops: Offering virtual, hybrid, and in-person formats, Clark County Solid Waste and Recycling and partners offer educational opportunities covering a wider range of topics including our Composter Recycler workshop series and supporting Recycling 101 and 201 classes.

Events and tabling: Staff and Composter Recycler volunteers promote recycling and waste reduction by having a booth at community events such as farmer's markets. These events build relationships, connect the community with resources, and help advertise the programs being highlighted.

Green Awards: The Green Awards honor leaders in environmental protection, education, and sustainable practices and recognize the positive impact individuals and businesses are having on our community and our planet. Presenting these awards offers the opportunity to increase awareness about our programs, share success stories with the community, and recognize leaders. Green Awards are earned through the Green Schools and Green Business programs.

Printed and digital materials: The distribution of information is key to all education and outreach campaigns. Green Business, Green Schools, and Green Neighbors programs establish a regular frequency of electronic newsletters. These communications provide education, event information, and share success stories relevant to their intended audience.

For campaigns, existing free and customizable resources will be utilized as available. If current resources are not identified, staff will work with the Clark County communications team and partners to create materials needed to support the campaign.

Social media and online resources: Programs utilize social media accounts to amplify campaign messages and promote events. All outreach programs have a presence on at least one social media platform as well as utilizing the CCPH social media accounts.

In addition to social media campaigns, programs have current and engaging websites that act as hubs for all digital information and campaign information. The sites house blogs, newsletters, campaign activities, and provide up-to-date calendars for events.

Each program has its own website as well as hosting information on the Clark County website. The county website offers links to the individual Green Program pages as well as linking community members to service information, solid waste management planning, and operations information.

Videos: The delivery of education and outreach programs changed dramatically because of COVID-19. During the period when in-person activities and services could not be provided, outreach programs increasingly produced videos to share information in the community. For example, Green Neighbors created a story map to replace the in-person Natural Garden Tour that included video interviews with home gardeners. Feedback from that project included praise from people who cannot attend this type of event in-person.

4.3 Existing waste reduction education and outreach programs

Waste reduction is embedded into most programmatic work and outreach campaigns. Below are examples of campaigns that specifically target waste reduction. For more examples of education and outreach programs in Clark County, refer to Appendix O.

Holiday waste reduction campaigns: Green Neighbors offers year-round tips on holiday waste reduction with a focused campaign around the winter holidays. Outreach topics focus on sustainable gift giving (reusable wrapping methods, shopping second hand, only buying what is asked for, gifting experiences), using reusable cooking supplies and table settings, as well as overall waste reduction through energy and water conservation. Outreach methods include social media, blogs, newsletters, and website updates as well as print and digital campaign advertisements through the Columbian newspaper.

WasteBusters: The 21-day WasteBusters Challenge is a pledge-based event hosted by Green Neighbors. The challenge is open to people who live or work in the county. The WasteBusters Challenge aims to educate residents through fun, interactive and engaging activities about the importance of reducing waste at home. Target areas of waste reduction include food waste, household hazardous waste, and single use plastics. The challenge provides opportunities to attend virtual events, complete weekly tasks, and answer prompts to share ideas with the community. Participants earn points for participating in activities and those points earn them tickets into drawings for prizes.

Green cleaning workshop: The Composter Recycler program hosts a workshop series which includes a class specifically designed to educate on reducing toxins in your home through using alternative cleaning methods. The course includes information on what is in conventional cleaners, how to read labels to make safer choices, and discusses the risks of stockpiling cleaning chemicals. In a post-COVID world, sanitizing has been brought into the spotlight. This course includes public health information and educates on the difference between cleaning, sanitizing, and disinfecting, including when each level is necessary for health.

4.4 Planning issues

How can we ensure that our messaging is sensitive and inclusive to all Clark County?

Development of the Equity Assessment and Action Plan

Efforts are underway to establish an equity plan with the purpose of providing a current assessment of equity in the Clark County solid waste system and set goals to improve conditions. This plan will set goals and identify needed actions that ensure the solid waste system is providing services and opportunities for all. Various internal and external elements are being considered to evaluate equity conditions in the solid waste system. Internal elements are processes happening within the Clark County Public Health department that impact the system. External elements are observable results of Clark County Solid Waste and Recycling work, such as the public experience, solid waste infrastructure, and environmental impacts.

Developing materials in multiple languages

Part of the equity plan assessment included researching what languages are spoken in Clark County and creating a baseline on what languages we have translations for. Currently, the community has access to a variety of online and printed resources to learn topics of waste reduction, reuse, recycling, and disposal in Clark County. Some resources are available in multiple languages, though currently, not all resources are translated. Translations are completed through a contractor for translation services.

The programs produce various printed educational materials. Printed materials are typically offered in English only. All materials printed by Clark County include contact information for accessing the Americans with Disabilities Act (ADA) relay service. Materials may be translated upon request.

How do we identify and address data gaps regarding waste reduction?

Transitioning measurement methods away from diversion toward reduction

Historically, the impact of a program has been measured by changes in the quantity of waste moving through the waste system and diversion of waste already in the waste stream. Using a metric that measures the impact of reduction before items enter the waste stream have not been identified. To ensure we are aligned with reduction over diversion priorities, efforts should be made to research and identify new metrics that will inform our efforts going forward.

Business outreach

A study of the business community composition by sector would provide a better understanding of commercial enterprises in Clark County. Except for having access to the number and type of food services that are permitted in Clark County, very little analysis has been completed to understand the types and quantities of businesses by sector. This information could inform future commercial outreach campaigns related to waste reduction and recycling or to provide outreach to small quantity generators of dangerous waste.

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

As local government entities, Clark County and the cities and town within the county are limited in how representatives can interact with the legislative process, but they can still evaluate legislation to prepare for how it may impact the community and operations or align with broader organizational goals. Our first responsibility is to our residents and customers. It is important to consider how legislation at any level could impact operations or the services our customers receive. Clark County is an active member of the ***Washington State Association of Counties*** and affiliate groups including ***Washington Association of County Solid Waste Managers***.

5

RECYCLING

5.1 Introduction

Recycling is second in the hierarchy of solid waste, and therefore is the second preference for solid waste diversion after waste reduction. Recycling happens when material is collected, sorted, and sold to reliable, consistent markets. For an item to be truly recycled, it must be remanufactured into a new product. Many items that are technically "recyclable" are not recycled for a variety of reasons: collection may be too complicated or expensive; sorting the material accurately with the existing processing technology might not be feasible; there may not be viable markets for the material; or the value of the material may not justify its collection and processing costs. The decision to recycle a material must consider economic, environmental, and societal impacts.

In recent years, Clark County and the six cities and one town within the county lines have worked together to develop and support a regional solid waste system that offers consistency and unified messaging. Efforts have been made with the goal of providing a consistent menu of services which includes commingled recycling containers, access to recycling events, and offering outreach and education to all residents.

5.2 Conditions assessment

Collection and processing

Residential recycling collection is determined through contracts with WUTC G-certified private haulers. The county has contracted Waste Connections on behalf of the City of La Center and the Town of Yacolt to provide residential recycling collection services (both single-family and multifamily) within those boundaries and in the unincorporated areas of Clark County. The cities of Battle Ground, Camas, Ridgefield, Vancouver, and Washougal have separate contracts with Waste Connections to collect recyclable materials from both single-family and multifamily residences within their jurisdictions.

Residential customers in Clark County have a roll cart-based collection system for single-family residences. Multifamily residences may have container or cart service. The carts/containers are for commingled paper, plastic, and metal recyclables; glass bottles and jars are collected separately. For single-family residences only, used motor oil, antifreeze and household batteries are also collected next to the cart. These items are not collected at multifamily complexes; otherwise, materials collected, and sorting requirements are the same for all residents. The multifamily collection service program provides each complex with 60- or 90-gallon collection carts and offers signage for the central collection areas as well as in-home containers for storing and transporting materials to the central collection areas. Multifamily collection schedules are set to meet the requirements of each complex.

Commercial customers benefit from a competitive commercial recycling environment, with commercial recycling services provided by a variety of service providers. Some operators specialize in paper fibers such as office papers, corrugated cardboard, or wood wastes, while others offer a full array of services for most commodities. The county actively supports commercial recycling through technical assistance programs and promotional educational materials. For commercial recycling, the degree of source separation required varies by vendor.

There is one Material Recovery Facility (MRF) in Clark County. Materials collected through curbside services and self-hauled to the two transfer stations are then transported to the West Vancouver MRF (West Van) for processing. Additional information on the collection and processing of the materials for recycling is provided in Chapter 9: Solid waste collection.

Waste characterization

Identifying local trends to determine what is entering the waste stream is essential to effectively design and implement programs that emphasize diversion. Waste characterization is an important starting point for solid waste management as

it can help define the untapped local recycling and diversion potential. A waste characterization study examines the quantity and composition by sampling the municipal solid waste from predefined waste generating groups to determine the material components. In 2012, Clark County worked with a consultant team to conduct the most recently published local Waste Characterization Report. Since the drafting of this report in 2012, waste streams have changed as well as markets for recyclable materials. Additionally, significant changes have been implemented in the regulations concerning solid waste management. As part of the updated management planning process, conducting an updated waste characterization study in Clark County has been identified as a priority action item.

The study will incorporate the municipal solid waste at the three in-county transfer stations with the goals of:

- Identifying and evaluating trends in the local solid waste system
- Supporting decisions on rate setting
- Improving transparency with policy makers, community partners, and the public at large
- Evaluating the effectiveness of existing recycling education programs
- Identifying future waste prevention and recycling programming opportunities

Waste diversion

Once components of the waste stream are identified, the fate of that waste can be explored to determine infrastructure needs. Although some of the collected materials will inevitably be landfilled, most can be reduced, reused, recycled, or otherwise diverted from disposal. Waste diversion includes all materials diverted from landfills through recycling or recovery operations. The recycling rate is the percentage of all waste generated by residents and businesses that is recycled and manufactured into new products. Clark County and its cities and town are committed to achieving a minimum recycling rate of 50% of the waste stream through a combination of public and private recycling activities.

Waste recovery rate data is provided by Ecology and includes information from both the residential and commercial sectors. It represents only reported collection activities; it does not count internal recycling programs in which retailers return recyclables to distribution centers outside of the county, material collected by non-reporting collectors, or individual efforts such as backyard composting. Recovery data for 2021 show Clark County with a recovery rate of 50.6% compared to Washington with a recovery rate of 49.1%.

The composition of the county's waste has undergone substantial change during the past decade because of economics (e.g., recession or economic downturn),

technological impacts, and shifts in the products being consumed. For example, residents rely on online news sources, and newspapers' printed content is shrinking. There has also been a shift by product manufacturers toward using more plastic containers and fewer glass or metal containers. The shift in waste composition both confirms the success of existing source separation programs and identifies opportunities for additional recovery.

Residual studies

To evaluate the success of diversion efforts and material recovery infrastructure, an annual study of residual waste is conducted at the West Van MRF. This study is conducted by Clark County Solid Waste and Recycling in partnership with Waste Connections.

A residual study evaluates the waste left over at the end of processing and determines the makeup of what is left to be disposed of at the landfill. This includes items that remain at the end of the processing line, other pulled items that are targeted for removal (e.g. broken glass, bagged materials, bulky materials), and trimmings (materials that became tangled in the screens and were then cut off). There is emphasis put on the percent of waste that is lost recyclable materials, either through contamination or missed in the sorting process, as well the types of recyclable materials being found. The types of residuals help identify gaps in the sorting process that can be evaluated for improvement as well as education and outreach opportunities.

The residual studies use multiple sources and compare results to inform area specific or source location opportunities for outreach and education programs. **For example, the 2023 residual study included waste from four sets of sources within Clark County:**

- Single-family homes in the City of Vancouver.
- Single-family homes in Clark County, including Ridgefield but excluding Camas, Battle Ground, and Washougal.
- Single-family homes in unincorporated suburban areas of Clark County that constitute the Urban Growth Area.
- Apartment complexes, condominiums, and other buildings with multiple dwelling units in Vancouver and Clark County.

This study offers a point-in-time glimpse how well the MRF sorting process is managing the acceptable materials that are delivered to the MRF for processing. Results from the study vary year by year, aiding in the identification of trends and impact of programmatic efforts. Key findings from the 2023 study are as follow:

- 30% of materials collected were removed as residuals. Combining all routes, 44% of residuals were lost recyclables, and 17.6% of the total amount processed was unacceptable materials or contamination.
- Residuals from all streams showed an overall increase from previous years in the amount of acceptable plastics (15.6%) and non-recyclable "other" plastics (7.9%), while there was a decrease in plastic packaging (5.5%) and loose plastic bags (0.8%).
- Residuals showed an increase in non-recyclable paper from previous years, at 14.4% across all routes. Much of the composition of unacceptable paper was beverage and frozen food boxes (i.e., wet-strength paperboard) which are the target of Waste Connections outreach. Continued outreach efforts will be needed to inform residents about which types of cardboard are recyclable or changes could be made in identifying a recycler of wet-strength paperboard.
- Residuals from multifamily sources had higher amounts of contamination overall and, specifically, more bagged garbage (3.7%), than other streams. This may be indicative of a lack of capacity in garbage bins at multifamily residences and/or consistent education and signage from property managers.
- While contamination overall was higher in multifamily sources, a notable exception was the higher percentage of non-recyclable paper (15.6%) in the combined single-family sources.
- Trimmings cut from screens had high quantities of textiles (15.9% average) from all streams. Despite their low volume by weight, the presence of these materials has a high impact on MRF machinery.

Waste Connections allocation study

Annually, Waste Connections collects data to determine the breakdown of recyclables collected curbside. Materials from geographically specific residential sources are processed separately from other sources to determine the amounts of various recyclable and non-recyclable materials that are being set out for recycling in different areas of Clark County. Data from this study includes separation of materials by type at both single-family and multifamily homes and identifies contamination levels based on the service area. This information is used to identify gaps that can be targeted for outreach and education programs as well as illustrate potential impact of outreach efforts. Notable to the 2023 study, contamination levels were down almost 10% to 24% and as low as 20% in some areas, although a causal connection cannot be made as to why with confounding variables.

5.3 Designated recyclable material list

The Washington State Association of Counties Solid Waste Managers Affiliate, the Washington State Refuse and Recycling Association, and Ecology have supported the establishment of regional, and if possible, statewide uniformity in what materials are accepted for recycling and how they should be prepared. More harmonization across programs reduces customer confusion and contamination.

To that end, they identified these four priority materials for statewide recovery:

- Paper (such as office and notebook paper, newspaper, mail, catalogs, magazines, and cereal or cracker boxes)
- Cardboard
- Plastic bottles and jugs (clear, colored, and natural)
- Steel and aluminum cans

The ***Clark County Public Health website*** includes a thorough list of materials that can be recycled countywide. Clark County recycling collection programs can now be considered mature, and the following materials are considered "designated residential recyclables" for single-family curbside pickup:

- Aluminum cans and foil
- Corrugated cardboard
- Glass jars and bottles
- Household batteries
- Mixed paper
- Motor oil and antifreeze
- Newspaper
- Plastic bottles, tubs, jugs, and buckets
- Poly-coated paper containers
- Scrap metal
- Steel cans

As noted above, some of these items are not available for multifamily services. For residents who do not have access to curbside services for specific items or who prefer to transport their recyclable materials directly, public drop-off centers are available at the transfer stations as well as options for private buy-back recyclers or drop-off containers. For additional information on the designated recyclable list, see Appendix L.

Note that batteries are not included in the list of designated recyclables. While curbside battery recycling is offered, the safety risks associated with this method of collection are significant. Messaging at the time this current plan was being drafted emphasizes utilizing the battery drop-off locations. Additional information concerning battery disposal is available in Chapter 7: Moderate risk waste as well as in the ***RecycleRight app***.

Description of markets

This list of designated recyclable materials is based on existing conditions. Future markets and technologies may lead to changes in the list. Criteria for evaluation include the potential for waste diversion; collection efficiencies; processing requirements; market conditions; market volatility; local market availability; continuity with existing programs; and Oregon recycling certification requirements. Potential additions include clamshell plastic containers and paper products with plastic lining (i.e., hot cups, refrigerated and frozen food boxes, beverage boxes, and six-pack beverage holders). The county's recycling collection and processing contracts have provisions for adding materials to the residential curbside collection program. The county will do an annual review of the recycling collection contract and incorporate any necessary changes to the designated recyclable list through the amendment process.

Materials that typically have stable statewide markets include newsprint, corrugated containers, high-grade paper, PETE and HDPE plastic bottles, tin cans, metals, and aluminum cans.

Actions are being taken at the state level to increase participation at the manufacturing level through the expansion of extended producer responsibility, also called product stewardship. The idea is that producers need to fund management of their product material, not just at the manufacturing stage, but also at the end of its useful life. Examples of successful programs in Washington include E-Cycle Washington, PaintCare, and LightRecycle in which items are taken back, recycled for useable parts, and components that are not reuseable are then safely disposed of.

5.4 Contamination reduction and outreach

Commingled recycling has boosted participation in the recycling system. However, this service makes it easier to misuse and improperly recycle materials. Contamination leads to higher processing costs for recycling facilities and causes material to be landfilled that would normally be recycled. Contamination occurs when people try to recycle non-recyclable materials, recyclable items not accepted by their recycling service, and materials soiled by food or liquid.

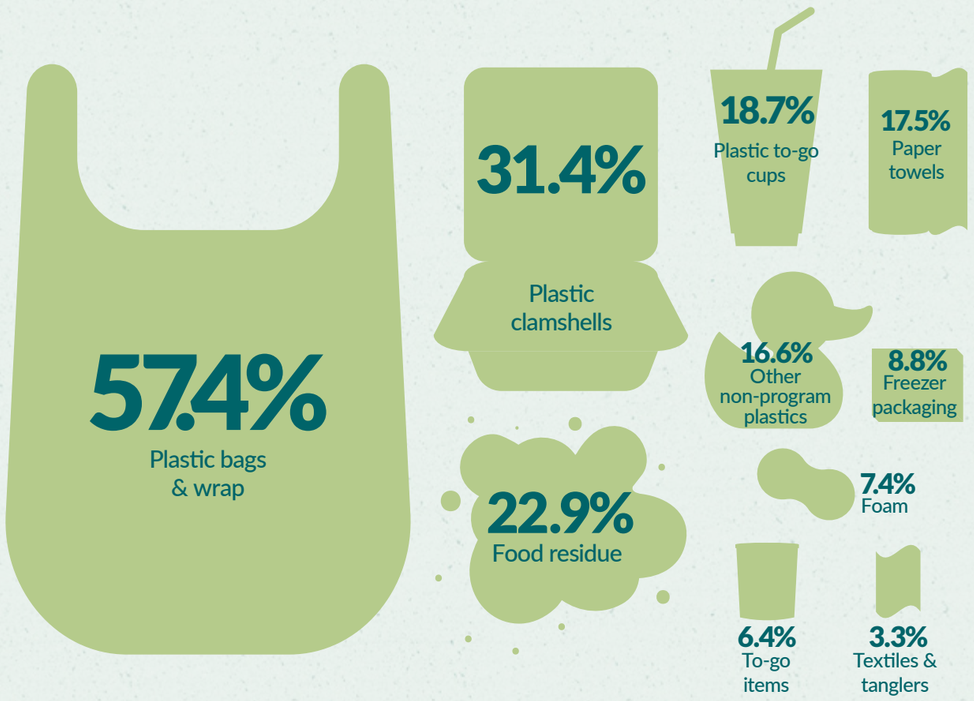
To address the high levels of contamination in Washington's recycling stream, a 2019 legislative directive, now incorporated into RCW 70A.205.045(10), outlines a requirement to include a plan to reduce contamination and provide education and outreach to the public.

The goal of the Clark County Recycling Contamination Reduction and Outreach Plan (CROP) is to reduce contamination of the materials collected in Clark County's single-family, multifamily, drop box, and commercial recycling programs. This, in turn, helps Clark County more fully realize the economic, environmental, social, and public health benefits of these programs. The CROP does not specifically include strategies to reduce contamination of other material streams such as organics or construction and demolition debris. However, many of the same strategies apply to these streams and may be included in future updates.

CROP requirements

Clark County's CROP has been designed per the requirements outlined in RCW 70A.205.045(10), which states a local jurisdiction's CROP must include the following elements:

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



Key contaminants

In 2023, Waste Connections staff collected data through a lid-lift cart tagging program. They found 37% of carts in City of Vancouver and 35.1% of carts in the UGA had contamination visible upon a lid-lift inspection.

The 10 most prevalent contaminants found include:

1. Plastic bags and wrap (57.4%)
2. Plastic clamshells (31.4%)
3. Food residue (22.9%)
4. Plastic to-go cups (18.7%)
5. Paper towels (17.5%)
6. Other non-program plastics (16.6%)
7. Freezer packaging (8.8%)
8. Foam (7.4%)
9. To-go items (6.4%)
10. Textiles and tanglers (Both at 3.3%)

While not identified above as a prevalent contaminant during lid-lifts, there is an increased concern in the handling of lithium-ion batteries and the significant fire risk they pose during transport, at the transfer stations, and at the landfill. Using the lid-lift method for evaluating contaminants has potential to underestimate the amount of battery contamination as batteries are small and heavy, leading to them falling out of view in the cart. While single-use alkaline and non-lithium rechargeable batteries can be recycled curbside, specific preparation is required to prevent sparks. To prepare the batteries, ends should be taped or individually bagged, and the prepared batteries are then placed in plastic bags on top of the recycling bins for truck drivers to pick up

by hand and put in the designated section of the truck. In 2021, out of 163 curbside battery setouts examined, 85.9% were incorrectly prepared to prevent the chance of sparking a fire. In the more recent 2023 survey, 42 total setouts were evaluated with 81% incorrectly prepared. Note this only includes batteries set out appropriately on top of the recycling bin, not those that were potentially contaminating the commingled recycling bins.

Problem contaminants impacts and cost analysis

Contaminants are problematic as they can slow down the sorting and processing of materials, reduce the quality and value of secondary material feedstocks, result in costly shutdowns, damage collection, processing, and remanufacturing equipment, and cause serious injuries to collection and processing facility staff. According to The Recycling Partnership, the greatest costs associated with managing a contaminated recycling stream at MRFs nationally come from the following and represent 80% of total contamination-related costs:

- 40% for disposal of residuals
- 26% in value lost from contaminated recyclables
- 14% in labor to remove contamination from sorting equipment

For more localized information, MRFs throughout Washington were included in a ***2019 survey conducted by The Recycling Partnership***. The results identified the following recycling contaminants as **the most problematic and costly to manage:**

- Plastic bags and film
- Tanglers including rope, cords, chains, and hoses
- Food and liquids
- Shredded paper
- Bagged garbage
- Non-program plastics including clamshells and polystyrene foam
- Hypodermic needles

Plastic bags and films as well as tanglers are problematic for many MRFs as they wrap around the sorting equipment and prevent the equipment from sorting materials properly. Recycling lines are shut down to cut the bags off the equipment, costing time and equipment maintenance as well as posing a safety risk to workers. Needles also

pose a serious threat to worker safety at MRFs. The other contaminants cause MRF equipment to run less efficiently and create more residual waste for the MRF. These factors put a strain on the recycling system and contribute to costs that may need to be passed down to haulers, communities, and residents.

Programs to reduce recycling contamination

Contamination reduction outreach may include sharing community-wide messaging through newsletters, articles, mailers, social media, websites, community events, educating drop box customers about contamination, and improving signage. Actions and programs have been developed to specifically target messages for single-family and multifamily residences, commercial locations, and drop boxes. Where possible, free and customizable resources are utilized, including ***Ecology's Recycle Right*** campaign materials and ***The Recycling Partnership's Anti-Contamination Kit***. ***Ecology's Contamination Reduction Best Management Practices & Resources*** document and ***Resource Library*** have examples of successful anticontamination programs. Additional details for local programmatic work related to recycling and contamination reduction is included in section 5.5 Existing recycling outreach and education programs and Appendix O.

Implementation actions and schedule

To meet the requirements of RCW 70A.205.045(10), an implementation schedule and details on conducting outreach addressing contamination has been included in Chapter 12: Implementation schedule.

In addition to implementation, Clark County will conduct periodic assessments on the effectiveness of recycling contamination reduction programs and strategies and share the results with key partners and the public. The assessment results inform the county

of what is working and what adjustments will need to be made for better results. This includes reducing contamination in other recycling programs that were not a focus during the initial CROP implementation.

5.5 Existing recycling education and outreach programs

The following are examples of programs that aim to support recycling education, increase participation in recycling programs, and to reduce contamination of recyclable materials. An overview of delivery methods was provided in Chapter 4: Waste reduction. For more examples of education and outreach programs, refer to Appendix O.

RecycleRight A-Z app and website: While a variety of items can be recycled at the curb, many items cannot be. However, some items can be recycled or reused in other ways at locations throughout the region, including Oregon. Clark County, City of Vancouver, Columbia Resource Center, and Waste Connections financially support the maintenance of an up-to-date database that connects residents with options for reuse and proper disposal. The Recycling A-Z database can be accessed online and is highlighted on the Clark County, Waste Connections, and City of Vancouver webpages. As an additional resource, the A-Z directory also can be viewed through the free ***RecycleRight App***.

Residential battery recycling drop-off campaign: As outlined above, batteries being improperly prepared prior to curbside pickup or contaminating commingled curbside carts may lead to fire, injury, and contamination of recyclable materials. Clark County Solid Waste and Recycling has partnered with Waste Connections to provide residents with convenient drop-off locations for no-cost battery recycling with a goal of reducing the amount of batteries that end up on the curb to begin with. Battery disposal sites accept lithium-ion (Li-Ion), nickel cadmium (Ni-Cd), nickel metal hydride (Ni-MH), nickel zinc (Ni-Zn), small-sealed lead acid under 5 pounds (SSLA/Pb), lithium primary, alkaline, carbon zinc, heavy duty, button and coin cell batteries, and all cellphones regardless of size, make, model or age. The outreach campaign includes toolkits for the drop-off location and staff, social media campaigns, webpage highlights, advertisement in the Columbian, and printed materials for distribution. Participating businesses are advertised on the Clark County website as well as being incorporated into the RecycleRight A-Z database and app.

Residential curbside contamination outreach: As part of the contractual agreement, Waste Connections implements their ***Recycling Done Right Clean Cart Program***. The program goal is to educate and empower customers to generate high-quality and clean recyclables. This year-round program allows for visual lid-lift inspections of residential recycling carts and containers. If recycling advocates identify a contamination, they are able to provide customer specific contamination feedback through the issuance of Oops tags.

Residential Outreach Work Group: Clark County solid waste planning and programs are a cooperative effort of Clark County, Battle Ground, Camas, La Center, Ridgefield, Vancouver, Washougal, and Yacolt. A Residential Outreach Work Group (ROW) meets monthly to discuss recycling outreach and education including contamination. Members consist of management and staff from Clark County Public Health, City of Vancouver Solid Waste, and the Waste Connections Education Team. Program materials including recycling and garbage signage is created by the local waste hauler with input from the ROW members.

The ROW meets to:

- Maintain consistency in accepted recyclable materials and key contaminants lists.
- Review recycling outreach materials to provide consistent messaging to customers to reduce recycling contamination.
- Coordinate resources and advertising efforts to optimize results, minimize customer costs, and improve end-user marketability.

5.6 Planning issues

How can we respond efficiently and effectively to fluctuating markets?

Recycling is based on fluctuating commodity markets. Despite these changes, effort is made to keep the items accepted for recycling as consistent as possible to reduce confusion among residents. For this reason, only items with reliable markets are accepted so there is always a buyer for our collected materials.

Even with this effort, changes may still impact the services able to be provided. To address this, awareness and outreach concerning market trends, emerging technologies, and upcoming regulation changes will continue to be a focal point to ensure partners are aware of potential changes.

How can we address the growing lack of community trust in recycling programs?

In recent years, changes in the markets and media coverage have led to an increase in conversations about recycling dependability, plastic pollution, and other similar topics. Consumers have expressed a loss of trust in the recycling system as news reports and statistics became available showing the reality of recycling. Rebuilding this trust is vital to the sustainability of recycling programs. In an effort to regain trust, emphasis should be put on transparency by providing updated and relevant information to the public. In addition to continuing established outreach and education programs, county staff are developing resources discussing the recycling process and where our materials are being sent.

What intervention points exist that can be addressed to decrease contamination while increasing participation in residential recycling programs?

Clark County, Waste Connections, and the cities and town in Clark County work together to ensure targeted education and outreach campaigns exist to decrease contamination in the curbside recycling bins.

Key contaminants of concern remain plastic bags and other films due to the cost and safety concerns associated with managing films entering the sorting equipment. Current messaging includes presentations, annual mailer, social media posts, and other resources.

How can we increase recycling participation?

At this time, recycling is not mandatory in all areas of Clark County. Bundling services and making it mandatory to subscribe into recycling services can help increase participation by making recycling more accessible and integrated into the weekly/every other week service. Additionally, efforts can continue to be made to make recycling the easier and more cost-effective option, increasing the appeal of participating.

6

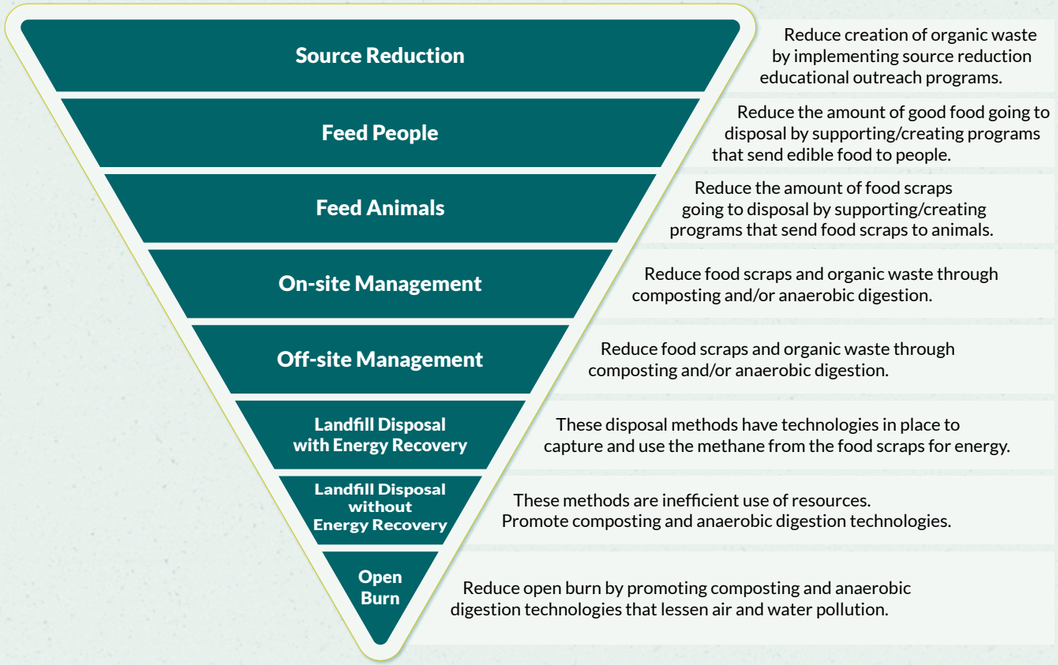
ORGANICS

6.1 Introduction

Significant diversion of waste is commonly accomplished through the composting of organic materials. Chapter 70A.205 RCW defines organic materials as any solid waste that is a biological substance of plant or animal origin capable of microbial degradation. Within this definition, organic materials include, but are not limited to, yard debris, food waste, food processing waste, manure, wood waste, and garden waste. Organic materials do not include any materials contaminated by herbicides, pesticides, pests, or other sources of chemical or biological contamination that would render a finished product unsuitable for use by the public or for agricultural purposes. In the ***2020-2021 Washington Statewide Waste Characterization Study***, organic materials comprise one of the largest recyclable components of the disposed waste stream.

Washington state's preferred organics management hierarchy (Figure 6.1.1) highlights the importance of locally based solutions as a priority over large-scale regional solutions. Anaerobic digestion and bioconversion systems come in varied sizes as well. This chapter addresses issues of scale and community benefits when considering recommendations for food waste reduction and recovery. The two least preferred options are not discussed as landfill disposal without energy recovery is limited to garbage from the Washougal Transfer Station trucked to the Wasco Landfill in Wasco County, OR which is not equipped with a methane collection system and open burn is illegal in Washington.

Figure 6.1.1 Preferred Organics Management Hierarchy



Adapted from the Washington State's Preferred Organics Management Hierarchy, 2016.

6.2 Conditions assessment

Collection and processing

Yard debris is an optional program that is available to single-family residences, multi-family complexes, and commercial businesses in Clark County. Yard debris service is provided every other week. Customers in Battle Ground, La Center, Yacolt, and unincorporated areas of Clark County, can sign up for on-call yard debris service. On-call customers pay a monthly rental fee for the cart and are only charged for the pickups they request. Rental fees can be canceled and reactivated as needed. Customers in other rural areas are not within the service area for yard debris.

Residents within the city limits of Vancouver and Ridgefield have the option of adding food scraps in the green carts. Residents in these areas can simply add food scraps to their existing green yard debris carts. The yard debris and food scraps collected from homes are taken to West Van MRF where they are reloaded and trucked to Dirt Hugger, a commercial composting facility in Dallesport, WA. Additional information on the collection and processing of the materials for yard debris and food waste is provided in Chapter 9: Solid waste collection.

Residential curbside organic materials services

Yard debris

Curbside collection of yard debris includes the following accepted materials:

- Brush
- Leaves
- Weeds
- Grass clippings
- Branches up to 4 inches in diameter and 5 feet in length

Determining what is accepted and what is not accepted is based on the current system for processing waste. Contamination of yard debris/organics carts can inhibit the effective production of compost or lead to pollution in the compost itself.

Materials that **cannot** be placed in curbside yard debris carts include:

- Food, including fruit or vegetables (unless within the Vancouver or Ridgefield city limits)
- Household hazardous waste
- Garbage
- Paper or plastic bags
- Compostable plastic
- Pet waste
- Construction debris
- Sawdust or bark dust
- Dirt, rocks, or sod
- Branches over 4 inches in diameter and 5 feet in length

Food waste

According to a 2023 report by the EPA, ***Quantifying Methane Emissions from Landfilled Food Waste***, it is estimated that wasted food causes 58% of all methane emissions from municipal solid waste landfills. This is in part attributed to the rapid breakdown of food waste which occurs prior to gas being captured through the gas collection systems. However, when food scraps are collected and sent to a compost facility, they become a valuable soil amendment that will return nutrients back to the environment.

The addition of food waste is an optional service that is currently available for residents within the city limits of Vancouver and Ridgefield. Residents who already have yard debris service simply add food scraps to their existing cart.

Accepted food scraps include:

- Cooked or raw meat
- Seafood
- Bones
- Cheese
- Eggshells
- Vegetables
- Baked goods
- Grains
- Fruit
- Coffee grounds

Some items are not accepted as food scraps. The decision to exclude certain items is due to processing infrastructure and ensuring the highest quality of uncontaminated compost is created.

The following items are not accepted as part of the food scrap collection program:

- Grease
- Compostable or biodegradable service ware
- Paper towels or plates
- Glass
- Foam
- Pet waste
- Plastic bags including compostable liners and bags. These do not compost at the same rate as organic material and must be removed, adding to the overall cost for the service.

Residential food waste

Results from the 2020-2021 ***Washington Statewide Waste Characterization Study*** indicate that 22.8% of the statewide disposed waste stream intended for landfill is organic materials, with vegetative edible food waste being identified as the most prevalent material type in all categories at 6.4%. When broken down by waste generator types, nearly a third (33.1%) of residential waste is categorized as organic materials. Edible and inedible vegetative waste make up almost half of the organic materials category at 15.8% of the entire waste stream. This portion of the waste stream includes vegetative food waste and all other food including meats/fats/oils. Categories are sorted by edible and inedible. Food waste categories will be included in the upcoming Clark County Waste Characterization Study for more localized data.

Table 6.2.1: Statewide residential food waste in disposed waste stream 2020-2021

Organic material	Est %	Est tons
Edible food waste—vegetative	6.4%	26847
Inedible food waste—vegetative	4.8%	20136
Edible food waste—Meats/fats/oils	2.1%	8809
Inedible food waste—Meats/fats/oils	0.5%	2097
Total	**13.8%**	**57889**

Source: Washington State 2020-21 Statewide Waste Characterization Study
https://apps.ecology.wa.gov/publications/documents/2107026.pdf

Backyard composting

Some homes compost food scraps in their backyard using worm bins, compost bins, or incorporating the food waste directly into trenches in their gardens. Backyard composting avoids the economic and environmental costs and risks of operating collection and transport systems and centralized processing facilities. The county actively promotes backyard composting as a waste reduction method through outreach and education programs.

Not all residents, however, have the ability or desire to compost their yard debris and/or other organics at home. For those residents, collection services are important.

Commercial food waste

Food waste collection is an optional service for businesses in Clark County. Businesses are provided 64-gallon carts that can be serviced up to five times weekly. Some businesses such as grocery stores may be interested in a 15-yard or 20-yard container that would be serviced weekly.

The accepted and not accepted list is similar to residential food waste as both sources of food scraps are brought to the same facility for processing.

In addition to food waste pick up services, outreach efforts are being developed to focus on donation of foods that are still edible. The EPA Wasted Food Scale (Figure 6.2.1) puts emphasis on the donation or upcycling of edible foods before composting. Clark County Food Bank partners with many local agencies to help serve food that is no longer useful for the business to families in the community. To aid in this messaging, before an organization can participate in the food waste program, there is a requirement to meet with a waste reduction specialist to help set up an effective system.

Figure 6.2.1: EPA Wasted Food Scale

Construction and demolition compostable materials

Construction and demolition may also contain organic materials that can be separated and recycled. Waste Connections services include the rental of drop boxes for construction sites for all cities and areas of Clark County (except Woodland). Drop box options include source separated dirt, sod, and yard debris as well as untreated dimensional wood. Additionally, untreated wood may be collected using a commingled drop box along with paper and cardboard.

6.3 Existing organics management education and outreach programs

With a significant increase in attention to organics management, several of the goals and objectives outlined in this CSWMP focus on managing organics, in particular a growing emphasis on food waste. Food waste reduction campaign studies have indicated that while consumers understand the importance of food waste reduction, they do not recognize their role in solving the problem. The programs outlined below are examples of efforts to address organic materials in the waste stream, including management of food waste, in Clark County. For a more comprehensive list of education and outreach programs, refer to Appendix O.

Composter Recycler Program: The Composter Recycler Program educates the community on waste reduction and recycling with an emphasis on organic materials. This program trains volunteers at no cost through a robust training series that focuses on backyard composting, vermicomposting, recycling, sustainable living, green cleaning, and more. Certified Composter Recyclers "pay back" their training with volunteer community service hours representing the program at tabling events such as fairs and farmers markets; growing redworms for worm shops; maintaining compost demonstration sites; and sharing their knowledge with neighbors and community groups.

The Composter Recycler Program also educates residents on proper use and distributes community worm bins annually in Clark County. There are currently 350 worm bins in operation throughout the county diverting 31.5 tons of food waste annually with each bin diverting 180 pounds of food waste per year. In addition, community backyard compost bins are sold at cost through the Composter Recycler Program with each bin diverting 380 pounds of organics.

Residential curbside organics contamination outreach: Expanding on their ***Recycling Done Right Clean Cart Program***, Waste Connections recycling advocates do visual lid-lifts on yard debris/organics carts to identify contaminants. If recycling advocates identify a contamination, they provide customer specific contamination feedback through the issuance of the Organics Oops tags; 2023 results indicated that organics total cart contamination was 7.2%.

Community hub composting: Clark County partners with faith-based organizations, large employers, and other sites to offer food waste drop-off locations for residents with limited access to composting services, such as those living in apartments and condos, or living outside of residential curbside organics service areas.

School cafeteria share tables: Clark County partners with public and private schools across the county to provide technical assistance and resources for students and kitchen staff to sort waste in cafeterias and school kitchens. Often many items going into the trash or compost could have been rescued as edible food. Share tables allow students to share unwanted food to other students that may want more food or have foods collected and distributed through the school resource centers. An estimated 65 schools are using share tables. Based on 100 pounds of food put on share tables each week, and 36 weeks of school, 234,000 pounds of food is placed on share tables over the school year.

Compost demonstration sites: Clark County hosts workshops and educates the community about composting techniques at the 78th Street Heritage Farm. Students participate in field trips to the site for garden and composting lessons.

6.4 Planning issues

What is needed for Clark County to be in alignment with the state's goals and initiatives laid out in HB 2301?

In 2022, HB 1799 Organics Management Act Mandates and Authorities was made law requiring state and local governments, businesses, and other organizations to reduce the amount of organic materials disposed in landfills and increase the demand for processed organic materials like compost. In March of 2024, HB 2301 was signed to expand on the organics management plan with specific goals for the diversion of organic materials. Washington legislators have set a series of goals over the next five years related to organics diversion. Washington goals include reducing food waste generation by 50%, diverting 75% of organic material from landfills by 2030, and diverting 20% of edible food from disposal by 2025.

To reduce food waste generation by 50%, education and outreach programs will focus on the most preferred methods of reducing food waste as outlined by the EPA Wasted Food Scale. Educational opportunities to produce, buy, and serve only what is needed are being implemented in the Composter Recycler course offerings as well as education and resources geared toward businesses.

The goal to divert 75% of organic material from landfills by 2030 can focus on waste reduction at the most preferred end of the scale, however capacity for the collection and processing of organic materials will need to be considered. As stated above, only residents within the city limits of Vancouver and Ridgefield are currently able to participate in food waste as part of their curbside services. Capacity at the current transfer stations as well as the cost associated with transporting to Dirt Hugger are concerns. RCW 70A.205.007 calls for facilitating siting of organic material management facilities to ensure that adequate capacity exists to process organic materials at the volumes necessary to achieve state organic material diversion goals. RCW 70A.205.040

sets the priority areas within the county for the establishment of organic materials management facilities. Priority areas must be in industrial zones, agricultural zones, or rural zones, and may not be in overburdened communities identified by Ecology under chapter 70A.02 RCW. Priority areas should be designated to minimize incompatible uses and potential impacts on residential areas, and organic materials management facility volumetric capacity required to manage the county's organic materials in a manner consistent with the goals of RCW 70A.205.007.

Diverting 20% of edible food will benefit the solid waste system as well as have potential implications for addressing hunger in the community. The Green Business program can support this by working with local restaurants and regulatory authorities to identify means to donate food to those with food insecurities or experiencing hunger. Green Schools will continue to work with cafeteria staff to donate foods through the use of share tables or by offering unwanted items to the resource centers.

How is Clark County supporting commercial composting?

HB 1799, focusing on organics management, has been embedded into chapter 70A.205 RCW. Section RCW 70A.205.545 outlines the requirements and timeline for implementing the collection and processing of food waste and other organic material wastes generated by businesses.

The county is currently implementing strategies to target food service businesses through marketing and outreach to source separate food scraps for a 12-month period. Participants receive assistance and support from Clark County, including a food waste tracking sheet, buckets, signage, and support for training employees.

In partnership with Waste Connections, participating businesses receive a monthly contact to check in about their collection programs and troubleshoot issues as they arise. Food waste prevention education is given to owners, managers, and chefs to encourage food waste prevention practices in both the back of house and front of house settings. Information on the Clark County Green Business website will provide background information and videos to offer tips and opportunities for food waste prevention.

What data is available concerning food waste and how can Clark County use it to improve programs?

In the 2022 Organics Management Law, the Washington Center for Sustainable Food Management was authorized with the task of supporting and tracking progress towards Washington's food waste reduction goals. Their work will be supported by ongoing research that increases our understanding of available data and establishes how to incentivize voluntary data reporting.

The more we know about food flows, the better we can target and manage them. A better understanding of food and wasted food flows will help meet the state's 2030 food waste reduction goals including:

- Increasing voluntary food waste tracking and analytic efforts.
- Connecting food waste tracking to funding mechanisms and incentives.

Advanced data tracking will inform food waste reduction opportunities. Clark County Solid Waste and Recycling will continue to monitor the available data and identify intervention points for further organic material waste diversion.

What are upcoming technologies to be monitoring and researching?

Technology and efficiencies in small-scale anaerobic digesters are evolving rapidly. Small-scale anaerobic digesters have demonstrated cost savings and environmental benefits, including the production of valuable digestate, bioenergy, and educational opportunities. Capital costs, technical assistance, and financial support are the largest barriers to small-scale anaerobic digesters development. Key actions to increase small-scale anaerobic digesters development include:

- Securing state-level funding, incentives, and programs for small-scale anaerobic digesters projects.
- Provide pilot project funding and support for farm to school and school to farm projects integrating STEM and climate curriculum.

What can be done to reduce contamination of composted organic materials?

The presence of physical and chemical contaminants is a major issue for the collection and conversion of organics. Plastic, glass, and metal clogs machinery and makes the sale of compost more difficult when contaminants are visible in the finished product. Chemical contaminants create additional concerns and are not as visible as physical contaminants. Studies on sources and impacts of chemical contaminants are ongoing. While a lot remains unknown, reducing contamination should be a focus to ensure success of the yard debris and food waste collection programs.

7

MODERATE RISK WASTE

7.1 Introduction

Household hazardous waste (HHW) and small quantity generator (SQG) dangerous waste are together referred to as moderate risk waste (MRW).

The first Moderate Risk Waste Management Plan for Clark County was developed in 1988 in response to State Hazardous Waste Management Act (recodified to RCW 70A.300), requiring all local governments to implement MRW plans. MRW has been specifically defined by RCW 70A.300.010(13) to mean any waste that exhibits any of the properties of hazardous waste but is exempt from regulation solely because the waste is generated in quantities below the threshold for regulation, and any household wastes which are generated from the disposal of substances identified by the department as hazardous household substances. MRW can be hazardous to human health, wildlife, or the environment, but it is conditionally (or categorically) exempt from the state's Dangerous Waste Regulations, chapter 173-303 WAC. MRW includes hazardous (toxic, corrosive, flammable, and reactive) wastes generated by households and by businesses which generate only limited quantities of hazardous waste, referred to as small quantity generators (SQGs). Common examples of MRW include paint, pesticides, solvents, antifreeze, cleaners, drain opener, and hobby chemicals.

The Hazardous Waste Management Act, Chapter 70A.300.310 RCW, outlines the requirement for local government to prepare and implement a plan for the management of hazardous waste, including specific elements for collections, public education, and data collection. This chapter stands as Clark County's hazardous waste management plan and describes current collections, applicable legislation, outreach strategies, challenges, future opportunities, and recommendations to guide Clark County Solid Waste and Recycling programs.

Through public education initiatives, permanent MRW collection services, technical assistance, and compliance programs, many of these goals originally identified in 1988 were achieved and are established services we see today. This CSWMP will continue to prioritize the goals of waste reduction through reducing toxics from entering the waste stream. For MRW that is generated, the CSWMP will continue to support recycling and proper disposal of MRW through education and collection events.

Washington state uses the term "dangerous waste" in legislation to differentiate state regulations from federal regulations, which use the term "hazardous waste." Washington rules are typically more protective of the environment than federal rules. For the purposes of this plan, dangerous waste and hazardous waste are used synonymously.

7.2 Conditions assessment

Hazardous waste can come from households, businesses, schools, nonprofit organizations, and community or religious centers. Mismanagement of hazardous materials has the potential to cause serious injury, illness, damage to property, and harm to the environment. Safe and accessible disposal of hazardous waste is essential to protect public health and the environment from harm.

Legal authority

Ecology regulations give local government jurisdiction over hazardous waste produced in small quantities by residents and SQG businesses. HHW produced by residents is exempt from state and federal regulations because the amount of waste is minimal compared to commercial sources. Businesses are regulated based on the quantity and types of dangerous waste they create and accumulate.

Designation of types of hazardous waste generators

Since HHW and SQG wastes are conditionally exempt from Washington's hazardous waste regulation, they are primarily regulated by local governments.

However, to qualify as an SQG, a business must first determine if it meets the state's quantity exclusion limit (QEL). If the QEL is met, then a business is an SQG and is regulated by a set of reduced dangerous waste regulations, designed to make hazardous waste management more accessible to small generators. Refer to figure 7.2.1 for the waste generator designation limits as defined by Ecology.

Figure 7.2.1: Waste generator designation limits

	Small Quantity Generator (SQG)	Medium Quantity Generator (MQG)	Large Quantity Generator (MQG)
Dangerous Waste	≤ 220 lbs	221–2,199 lbs	≥ 2,200 lbs
	&	&	OR
Toxic EHW and AHW*	≤ 2.2 lbs	≤ 2.2 lbs	> 2.2 lbs
	&	&	OR
Spills of Toxic EHW and AHW	≤ 220 lbs	≤ 220 lbs	> 220 lbs

**EHW: Extremely Hazardous Waste; AHW: Acutely Hazardous Waste*

The health or environmental risks involved with MRW are not compared any less to fully regulated sources of hazardous waste, but they are referred to as moderate risk because the waste is produced in small quantities. They have a smaller impact compared to waste generated in large quantities. Fully regulated businesses are required to have a dangerous waste permit and may be subject to inspections from Ecology staff. SQGs do not need a permit with Ecology, and they are the only generator of commercial dangerous waste that can self-haul dangerous waste to a certified disposal facility. HHW may be self-hauled by residents to a disposal facility.

Universal waste is a unique type of hazardous waste that has less stringent management regulations than typical hazardous waste. Universal waste will not count toward a business's QEL when responsibly recycled. In Washington, the defined list of universal wastes includes batteries, lights, lamps, light bulbs, light tubes, mercury-containing thermometers, mercury-containing thermostats, and mercury-containing switches and relays. The federal list of universal waste includes pesticides and aerosol cans, though Washington rules are more protective and do not include these among universal wastes. Hazardous materials being managed through universal waste rules, product stewardship, and/or recycling laws in Washington are described in section 7.2 Expanded recycling or disposal options.

A list of existing generators of hazardous waste in Clark County is provided in Appendix M.

Household hazardous waste

Collection services and self-haul options

Limited curbside collection of HHW is available to residents subscribed to single-family curbside recycling. Motor oil and antifreeze can be recycled by being placed in clear and labeled gallon jugs placed next to the blue recycling cart. Small batteries can be recycled by bagging or taping the ends of the batteries and placing them on top of the blue recycling cart. As discussed previously, batteries pose a fire risk when not properly prepared prior to placing them on the blue recycling cart. Utilizing a ***drop-off location*** is preferred to ensure the safety of haulers and transfer station staff.

Residents can self-haul their hazardous waste for free disposal at any of the three contracted transfer stations in Clark County including West Van, CTR, and WTS. Hours vary at the three locations. More information can be found at the ***Waste Connections HHW website***. This service is contractually funded by Columbia Resource Company (CRC), including all costs of operations, maintenance, transportation, recycling, and disposal of HHW. Additional information on funding can be found in Chapter 11: Funding and financing.

In addition to the permanent facilities, Clark County Solid Waste and Recycling team coordinates annual HHW events in northern Clark County, allowing residents to drop off HHW at a temporary location in the region. This increases accessibility to those residents who live farthest from the permanent facilities. At the time of this revision, events are held in Ridgefield, La Center, and Yacolt.

Final disposal methods

Once collected, HHW is safely sorted and packaged by qualified technicians. Packaged materials are transported to their appropriate end-processing facility. Depending on the material, HHW is recycled, used as an alternative fuel, incinerated, treated in a wastewater treatment facility, or disposed of in a hazardous waste landfill.

Incineration is a disposal method where waste is burned to ensure safe destruction. Incinerated HHWs may include aerosols, pesticides, medications, sharps, chemical solids that are dangerous when wet, oxidizers, flammable solids, light ballasts containing polychlorinated biphenyls and others. Some HHWs including acids and bases can be chemically neutralized at a wastewater treatment facility operating with appropriate water quality permits. Once the chemicals are treated, they are discharged from the facility with treated wastewater.

Some hazardous materials require disposal at specially designed hazardous waste landfills. HHW disposed of in a landfill may include smoke detectors, lab-packed oxidizers, and contaminated soil or debris. Some items disposed of at hazardous waste landfills are miscellaneous wastes including asbestos-contaminated debris and chemically treated wood. All recycling, energy-production, incineration, wastewater treatment, and landfill facilities must comply with regulations and permitting requirements to prevent harm and pollution.

HHW trends

Increasing costs, safety risks, and relatively stable collection rates since the peak of 3,207,386 pounds in 2017 keep HHW as a focal point in solid waste planning. Clark County continues to prioritize projects including hazardous waste reduction education, facilitation of reuse methods, expansion of HHW facility operations, and facilitating or advocating the use of safer alternatives to hazardous materials.

Table 7.2.1: HHW participation

	2017	2018	2019	2020	2021*	2022	2023	6 yr avg
Pounds	3,207,386	3,112,806	2,894,074	2,312,382	2,181,443	2,400,759	2,572,858	2668815.43
Vehicle count	18,119	18,954	18,825	19,065	18,985	16,571	17,408	18,275.29

*in April of 2021, the PaintCare program came into effect. Paint dropped off at PaintCare locations is not being captured.

Source: CRC HHW Activity Reports

Commercial dangerous waste

Clark County HHW facilities do not accept dangerous waste from businesses. Businesses are responsible for managing their hazardous waste through a certified hazardous waste management company. As of 2023, there are 65 businesses registered with Ecology as medium or large quantity generators in Clark County (Appendix M). These businesses are regulated by Ecology and include manufacturers, health care facilities, grocery stores, automotive repair shops, high schools, and more.

It is difficult to quantify the number of SQG businesses in a region as they are exempt from reporting, though some report voluntarily, including 84 Clark County SQGs in 2023. Ecology estimates that SQGs outnumber MQGs and LQGs, collectively producing a significant amount of MRW.

Businesses in Clark County that qualify as SQG have limited options for managing their dangerous waste. Though SQGs may legally self-haul their waste for disposal, there are no public or private facilities in Clark County accepting drop-offs of SQG dangerous waste as of 2023. The alternative is to have dangerous waste collected directly onsite by a hazardous waste company. Local options are available on the ***Clark County website***. Onsite collection is more expensive and less convenient than self-haul, creating barriers for small businesses trying to responsibly dispose of hazardous material. Due to the cost and inconvenience of hazardous waste disposal, solid waste professionals speculate SQG businesses claim their dangerous waste as HHW and use the free HHW facilities for disposal.

State laws prohibit commercially generated MRW from being disposed of as municipal solid waste, but not all businesses comply. The 2020-2021 statewide waste characterization study completed by Ecology and Cascadia Consulting Group estimated that statewide commercial municipal solid waste contained 3.1% hazardous and miscellaneous waste by weight on average, totaling an estimated 46,364 tons of hazardous waste being disposed of in municipal solid waste each year. Common hazardous materials found included medical waste, personal care products, water-based paint, solvents, oil filters, and other potentially hazardous wastes.

On occasions when MRW is found at CRC transfer stations in municipal solid waste or recycling, operations pause to allow employees to collect the dangerous materials. Commercial transactions are closely monitored so a business that improperly disposes of its dangerous waste can usually be identified and sent an invoice for the cost of handling and disposal. Materials often found are paint and mercury-containing lamps that could harm facility staff, equipment, and the environment. After the invoice is sent to the business, a specialist from Clark County Public Health contacts them with non-regulatory guidance for managing hazardous waste.

7.3 Expanded recycling or disposal options

To improve the safe disposal of common MRWs and universal waste, various product stewardship, extended producer responsibility, and recycling programs have been established through state and federal legislation. These programs require specific products, usually hazardous products, to have a recycling or disposal system in place when products reach their end-of-life. Product stewardship programs may be funded by a fee added to the new sale of products, placing the cost on the consumer. Sometimes this fee is a rebate to be returned to the consumer upon safe disposal. In cases of extended producer responsibility laws, the producer or manufacturer must directly fund the disposal system, placing the cost on the producer. Product stewardship and extended producer responsibility programs lift the burden of waste management from hazardous waste collection programs, and generally result in increased capture of the hazardous products.

Antifreeze

Antifreeze is a liquid that is made from ethylene glycol or propylene glycol and is used to control the temperature in internal combustion engines. Ethylene glycol and propylene glycol are made using ethylene and propene by-products of oil refining and natural gas processing. Antifreeze accumulates contaminants from use in engines and must be replaced when there is too much contamination. Antifreeze is a uniquely recyclable material as it can be filtered and distilled to remove contaminants, allowing the remaining antifreeze to be reused.

Along with drop-off at the HHW facilities, single-family residences subscribed to recycling service from the county's contracted hauler, Waste Connections, have the option to recycle used antifreeze at the curb. Residents may place clear one-gallon

containers of antifreeze at the curb alongside their recycling carts. The container must be clear so the driver can visually confirm the contents. Recycling drivers collect the jugs by hand and place them into a tray on the side of the recycling truck, designed specifically for one-gallon jugs. Antifreeze is bulked at West Van and recycled.

Batteries

Most batteries meet the definition of hazardous waste, and in Washington, are managed as universal waste. Batteries contain harmful chemicals and can start fires. In 2023, chapter 70A.555 RCW was signed into law, establishing an extended producer responsibility program for batteries. The program will establish drop-off options for batteries at volunteer retail sites and solid waste facilities, starting in 2027.

Collections will accept batteries from residents, businesses, nonprofit organizations, and government organizations. Portable battery collections begin July 1, 2027, and medium format battery collections begin July 1, 2029. Portable batteries are defined as primary batteries weighing no more than 4.4 pounds, and rechargeable batteries weighing no more than 11 pounds with a rating of no more than 300 watt-hours. Medium format batteries are defined as primary batteries weighing between 4.4 and 25 pounds, and rechargeable batteries between 11 and 25 pounds, or with a rating between 300 and 2,000 watt-hours.

Ecology is required to complete an assessment on large format batteries, battery-powered medical devices, lead acid batteries, and battery containing products by July 1, 2027. Large format batteries are defined as primary batteries weighing over 25 pounds, and rechargeable batteries weighing more than 25 pounds or with a rating over 2,000 watt-hours. Electric vehicle batteries are to be assessed independently, and Ecology must report recommendations to the legislature. The law also includes requirements for battery labeling to begin January 1, 2030.

Electronics

Electronics are considered MRW because they contain hazardous components, including metals and flame retardants, that can be harmful to health. E-Cycle Washington is a stewardship program that was signed into law in Washington in 2006 that allows Washington residents and small businesses (fewer than 50 employees) to recycle specific electronics for free at various locations across the state. The program is funded by electronics manufacturers and is directed by Ecology. As of 2023, covered products include televisions, computers, laptops, monitors, tablets, e-readers, and portable DVD players.

Lead-acid vehicle batteries

Large lead-acid batteries used in vehicles contain harmful lead and sulfuric acid and are considered dangerous waste. Due to their prevalence and toxicity, vehicle battery recycling legislation was passed in 1989 and was codified in Washington as part of Chapter 70A.205 RCW. The regulations made improper lead-acid battery disposal illegal, established a core charge on new battery sales, and created a recycling system where customers may recycle automotive lead-acid batteries at the point of sale for a rebate of the core charge. The core charge incentivized lead-acid battery recycling and has been very successful, with the EPA reporting a 99% recycling rate.

Lights

Many light bulbs and tubes are hazardous because they contain mercury, a dangerous neurotoxin that is easily released into the air when bulbs break. Because of their potential for harm, mercury-containing lights are regulated as universal waste to increase accessibility to safe recycling. The Mercury-Containing Lights Proper Disposal law (Chapter 70A.505 RCW) was signed into law in 2010, developing the LightRecycle Washington program. This allows Washington residents and businesses to recycle up to 10 mercury-containing lights per day for free at various locations across the state. This system is funded by a fee on the sale of new lights and is directed by Ecology. Items accepted in the program include fluorescent tubes, compact fluorescent lights, and high-intensity discharge lamps.

The Mercury-Containing Lights Proper Disposal law contains a sunset provision, the Sunset Act (Chapter 43.131 RCW), that the mercury-containing lights product stewardship program is subject to review, termination, and possible extension on July 1, 2026. If the program is extended, there will be no change to policy or collections. If the program is terminated, it is anticipated that the hazardous waste facilities will see increased quantities because other locations in the county will no longer be collecting these lights. Also, the cost to recycle mercury-containing lights would no longer be funded by the state program and would therefore be an added cost to the HHW facilities.

Medications

Unwanted and expired medications are considered hazardous waste because they can have a wide variety of harmful effects on people and the environment. Businesses producing pharmaceutical waste must manage it through a hazardous waste disposal company, but residents have free, safe options for disposing of controlled and non-

controlled medications, inhalers, and pre-filled injectables through a statewide product stewardship program. Chapter 69.48 RCW established Washington's Safe Medication Return program, requiring medication manufacturers to fund a disposal program that began operations in 2020.

Washington Department of Health designated MED-Project and Inmar Intelligence as two independent operators of this program. Operators have installed disposal kiosks at participating pharmacies and police departments where residents can drop off medications for secure disposal. Residents can also request free, pre-paid envelopes to mail medication for disposal. Mail-in options are also available for inhalers and pre-filled injectables. All medications collected in this program are tracked by the US Drug Enforcement Administration (DEA) and sent to incinerators. Take-back events are also organized by program operators and the DEA to service regions that have limited kiosk options.

Motor Oil

Used motor oil is a common MRW produced from crude oil that has a high potential to pollute. Oil is damaging and persistent in water and soil because it is insoluble and carries chemical and metal contaminants acquired from engines. Used motor oil is uniquely recyclable because it can be re-refined and reused many times. And when oil prices are high, used oil can be a marketable commodity for recyclers, reducing HHW disposal costs. There are many opportunities for residents and businesses to safely recycle used motor oil in Clark County.

Clark County's contracted recycling hauler, Waste Connections, collects used motor oil alongside curbside recycling for single-family recycling customers. Residents are directed to put their used motor oil in clear, one-gallon plastic jugs with screw-top lids to place on the curb alongside their recycling cart. The recycling drivers collect the jugs by hand and place them in a sealed tray on the side of the recycling truck that is designed to carry the one-gallon jugs. This curbside option greatly increases accessibility to motor oil recycling. The transfer stations also accept drop-offs of motor oil during all operational hours. In 2023, approximately 280 tons of motor oil were recycled through curbside collections and drop-offs at the transfer stations.

If oil is spilled during used oil collections, staff use adsorbent desiccant on the spill and will dispose of the used desiccant as hazardous waste. Secondary containment is used at the transfer stations to prevent any release of oil or other hazardous material into the environment. To prevent polychlorinated biphenyl contamination in used oil bulking tanks, testing is completed on each tank before being collected by the vendor for disposal. Contamination testing is also completed for halogens that may be present from consumers mixing oil with solvent. Levels are noted on invoices, and separate trucks are dispatched for tanks with contamination levels exceeding the safety thresholds. Material exceeding safety thresholds is managed according to the Federal Toxic Substances Control Act.

Recycling access for used oil is widely available for residents in Clark County at the HHW facilities, curbside collections, and private retail drop-offs. Dozens of private automotive stores accept small quantities of motor oil for free from residents and businesses, alongside other recyclable automotive waste such as lead-acid batteries. Retailers that sell over a specified quantity of motor oil are required to have recycling signs onsite and must sell containers and spill kits that allow safe capture and containment of used oil during oil changes.

Clark County Solid Waste and Recycling collaborates with regional partners to educate the community on motor oil recycling, contamination reduction, and spill prevention. A recycling guide is mailed to Clark County residents annually, including guidance on how to safely capture, store, and recycle used oil through public collections. Recycling locations are also listed on a local, searchable directory of recycling and disposal options, referred to as the Recycling A-Z directory. It is updated frequently, available on various regional solid waste websites, and is also available in the free RecycleRight app. Additional education may occur at the curb, with Waste Connections recycling advocates and drivers leaving educational tags to correct mistakes observed at the curb, such as the use of incorrect containers for used oil.

Paint

Oil-based paint is a common dangerous waste due to its flammability and volatile compounds. Latex paint is safer than oil paint, though it can contain metals and plastics that are harmful to the environment if improperly disposed of. When recycled, leftover latex paint can be mixed to create new paint, and oil-based paints can be used for energy production. From 2005 to April 2021, Clark County, CRC, and Waste Connections managed a Paint Take Back program collecting oil-based, latex, and aerosol paints, and other paint-related materials from residents at participating paint stores throughout Clark County. In April 2021, a statewide paint recycling program known as PaintCare began operating, taking the place of the local Paint Take Back program.

PaintCare is the nonprofit coordinator of Washington's paint recycling program that was signed into law in 2019. The program allows residents and businesses to recycle paint and paint-related material at over 150 locations in the state. All residents and businesses can recycle latex and water-based paints through PaintCare, but oil-based paint recycling is only available to residents and SQG businesses due to their regulatory exemption statuses. Products accepted through PaintCare include interior and exterior architectural paints, deck coatings, floor paints, primers, stains, and more. PaintCare

sites do not accept aerosol coatings, solvents, and products designed and labeled to be used for industrial or non-architectural use.

PaintCare is funded by a fee added to the sale of new paint in Washington, charged based on the size of the paint container. Dozens of retail stores and the three transfer stations in Clark County are operating as collection locations for PaintCare paint recycling. Before PaintCare, paint recycled through the HHW facilities, and the locally organized Paint Take Back program made up 42% of HHW disposal costs in 2020. PaintCare reduces this cost from HHW facility operations. Aerosol paint is not a covered product under PaintCare and will be a continued cost incurred at the HHW facilities. For updated information, PaintCare maintains ***a webpage of what products are and are not accepted***.

Photovoltaic modules

Solar panels used to generate electricity are composed of small, indivisible photovoltaic cells, which are made using hazardous chemicals, hazardous metals, and rare minerals. A product stewardship program for photovoltaic modules was signed into law in 2017 and requires manufacturers to fund and manage a recycling program for all modules purchased in Washington after July 1, 2017 (chapter 70A.510 RCW). Covered products include solar modules used on or in buildings; freestanding off-grid power generation systems such as water pumping stations; electric vehicle charging stations; solar fencing; solar-powered signs; and solar-powered streetlights. Ecology anticipates the recycling program to begin July 1, 2025.

7.4 Existing MRW education and outreach programs

RCW 70A.300.350(b) requires MRW planning to provide for ongoing public involvement and public education regarding the management of MRW, including the potential hazards to human health and the environment resulting from improper use and disposal of the waste and proper methods of handling, reducing, recycling, and disposing of the waste. MRW programs in Clark County have taken a variety of forms since the original MRW plan was implemented. Some activities have been combined with solid waste information programs, such as general waste management publications and handouts. Other activities have specifically targeted MRW from households and small quantity generators. Below are examples of current campaigns focusing on MRW. For a more comprehensive list of education and outreach programs, refer to Appendix O.

Battery drop-off location campaign: To reduce the risk of fire caused by inappropriately disposed of batteries, Clark County has partnered with Waste Connections to provide residents with convenient drop-off locations for no cost household battery recycling. Participating businesses are given the materials needed for collection free of charge including disposal boxes and bags for separating the batteries as well as signage and promotional materials that can include the business branding. Businesses are listed on the county website as well as listed in the RecycleRight app. The program is further advertised through social media, newspapers, press releases, and newsletters.

Battery disposal sites accept lithium-ion (Li-Ion), nickel cadmium (Ni-Cd), nickel metal hydride (Ni-MH), nickel zinc (Ni-Zn), small-sealed lead acid under 5 pounds (SSLA/Pb), lithium primary, alkaline, carbon zinc, heavy duty, button and coin cell batteries, and all cellphones regardless of size, make, model or age. There is a limit of 10 batteries per person per day. Larger quantities can be dropped off at the HHW facilities (see above).

Recycling 201: In partnership with Waste Connections, the City of Vancouver, and the Clark County Solid Waste and Recycling team, the Recycling Beyond the Curb workshop is a free class offered to Clark County residents. The Recycling 201 workshop outlines the risks associated with HHW as well as how to dispose of a variety of items safely and responsibly. Classes are offered monthly in both virtual and in-person formats.

Green cleaning education: Cleaning products are often overlooked as a hazardous waste item, however they meet the definition and require safe disposal. In an effort to reduce amount of toxic products used and entering our waste stream, a portion of the Composter Recycler workshops focus on recycling and proper disposal of HHW. Course topics include batteries, green cleaning for reducing HHW in your home, and other topics on reducing hazardous waste in your homes. Courses are taught in person with recorded options available on the Composter Recycler website.

Additionally, in collaboration with the Green Schools program and school partners, the Composter Recycler green cleaning curriculum was brought to Spanish speaking residents within the Evergreen Public Schools boundaries. Materials were translated into Spanish and an interpreter was present to interpret the information and facilitate questions and answers. The success of this partnership illustrates an opportunity to continue to reach Clark County residents who prefer to receive their information in languages other than English.

Pollution Prevention Assistance: In 2007, Ecology established the Pollution Prevention Assistance (PPA) program to improve the state's water quality by preventing pollution from SQG businesses. Through this program, local governments may provide non-regulatory technical assistance to businesses and schools within the county, teaching best practices to prevent stormwater pollution. Clark County Public Health has two PPA specialists, and Public Works has one PPA specialist working in unincorporated areas of the county and cities. The City of Vancouver has three PPA specialists who operate from the city's Public Works department. These specialists teach SQGs the best dangerous waste management practices, dangerous waste rules, spill prevention, spill response, proper storage of hazardous waste, waste reduction, and stormwater protection. Through this program, Ecology funds a product replacement program to assist businesses to transition toxic business operations to less-toxic alternatives.

7.5 Planning issues

Is it feasible to extend the hours of operation at the HHW facilities to address access concerns, traffic impacts, and customer wait times?

As of 2024, the HHW facilities have limited hours of operation. West Van HHW operates Fridays and Saturdays, 8 am to 4 pm. CTR HHW operates Fridays–Sundays, 8 am to 4 pm. WTS HHW operates on the third Saturday of each month from 8 am to 4 pm. The facilities close or have reduced hours for select holidays including Thanksgiving, Christmas Eve, Christmas, New Year's Eve, and New Year's Day. Operating on different schedules at each facility, and only on Fridays–Sundays reduces the HHW facilities' accessibility. Residents who work on weekends are nearly unable to use the facilities. Expanding days of operation provides the public more flexibility in disposing of their HHW.

Expanding HHW hours offers extra benefits to operations. A regional study of Clark County's solid waste system identified significant traffic concerns at the transfer stations and expanding HHW hours is one method to reduce traffic on peak traffic days. Additionally, Clark County Public Health inspections of the HHW facilities have identified reoccurring crowding issues for HHW processed at each of the facilities. Extra days of operation at the facilities provide technicians more time to organize the material, thereby improving safety conditions. Changes in HHW operational days may be flexible and planned to meet the needs of all partners.

How can the options for SQG disposal of dangerous waste be expanded?

Businesses in Clark County that qualify as SQG have limited options for managing their dangerous waste. At the time of this revision, no local facilities accept self-hauled SQG waste, leaving SQGs with the more expensive option of having waste picked up onsite. Self-hauling waste reduces handling costs and is generally more convenient for small businesses with small quantities of waste. Mail-in disposal options exist for some specific types of dangerous waste such as aerosols, sharps, electronics, batteries, lights, some medical wastes, and mercury-containing equipment. While mail-in options are convenient for small businesses, they are limited to specific materials deemed safe to transport as mail by the U.S. Department of Transportation.

Since HHW and SQG dangerous waste are both classified as MRW and have the same collection regulations, it is possible to collect SQG and HHW together. In Washington, 21 counties accept SQG dangerous waste alongside HHW, with at least two additional counties considering adding SQG service, based on 2021 updates to Spokane and Adams counties' solid waste management plans. Clark County small businesses would greatly benefit from adding SQG collections at the HHW facilities, joining the 21 more comprehensive solid waste programs in the state. Collecting SQG dangerous waste with HHW would have a long-term positive impact on how businesses manage dangerous waste in the county. It would lessen the burden of dangerous waste management on Clark County's schools, small businesses, and nonprofit organizations. Providing this service at any of the three HHW facilities would increase convenience and access to responsible SQG dangerous waste disposal, maximizing MRW collections in the region. Adding SQG service would also contribute toward wider regional goals to protect public health and the environment from dangerous materials.

Options to consider include:

- Requiring SQGs to schedule an appointment for drop-off.
- Requiring businesses to submit a hazardous waste inventory for each drop-off.
- Limiting the number of drop-offs per year from each business.
- Limiting the quantity of waste accepted per visit to 200 pounds. or 25 gallons.
- Limiting this service to one location on a low-traffic weekday (recommend operating a minimum of one day weekly for consistency and convenience).
- Operation on weekdays allows technicians to better organize and maintain the facilities, separate from the busy weekends.

What data is available to ensure equity in access and service levels throughout Clark County?

To best serve everyone in the community, there is a need to collect data on who is using the HHW facilities to determine what populations are being underserved. A study by the Product Stewardship Institute found that the average resident needs to dispose of HHW once every 7.4 years. To meet this need, HHW collections should be serving at least 13.5% of their region's households each year. Clark County served 12% of households in 2020. This shows a need to increase participation by 1.5% or approximately 6,500 households per year. Studying participation at the HHW facilities would help identify barriers for residents not using the HHW facilities. This could include barriers such as distance to travel to the facilities, use of public transportation, racial inequities, disabilities, age, language barriers, and more that may prevent trips to the HHW facilities. Identifying barriers would allow targeted expansion of services, accessibility, and engagement to better serve all community members.

What waste reduction interventions can be implemented?

Hazardous waste is dangerous and has a high potential to harm public health and the environment. To create a healthier society and planet, there is a need to reduce the production of hazardous waste at its source. By regulatory standards, HHW is produced in small quantities, though the cumulative amount is significant. In 2017, a total of 3.2 million pounds of HHW was collected from approximately 21,000 Clark County households, averaging 154 pounds of hazardous waste per household. The high quantities of HHW show a need to provide real solutions and incentives to reduce the use and production of hazardous materials in the long term.

8

MISCELLANEOUS WASTE

8.1 Introduction

Miscellaneous wastes include solid waste with special collection, handling, and disposal requirements not generally included as part of the mixed municipal solid waste stream. Miscellaneous waste is a catch-all category used to describe dangerous hard-to-handle materials. While some miscellaneous waste can be managed at the same permitted disposal facilities as other wastes, special processes are required to ensure they are handled appropriately. The following sections outline miscellaneous wastes managed in the Clark County regional solid wase system.

8.2 Types of miscellaneous waste

Agriculture wastes

Agricultural wastes are "wastes resulting from the production of agricultural products, including, but not limited to, manures and carcasses of dead animals weighing each or collectively in excess of 15 pounds." Agriculture wastes consist of three general types of wastes: crop wastes; livestock wastes; and agricultural chemicals. Crop wastes include residues from grain, hay, vegetables, seed crop production and trimmings from fruit trees. Livestock wastes include manure and animal carcasses. Agricultural chemical wastes are composed primarily of empty agricultural chemical containers and banned or unused agricultural chemicals.

Disposal

Most agriculture waste generated in Clark County never enters the municipal solid waste stream. Instead, this waste is most often disposed on-site. The three principal methods for disposing of agricultural wastes on-site are:

- Land application or composting (manure and crop residue);
- Burning (trimmings and crop residue); or,
- Use as animal feed (crop residue).

The agricultural wastes that typically enter the municipal solid waste stream are non-regulated agricultural chemical containers, small animal carcasses, and some minor amounts of crop residue and tree trimmings. These wastes are typically landfilled or composted. Most agricultural chemical containers can be returned to the manufacturer or supplier for reuse or disposal. These containers, if not properly rinsed, are generally regulated in Washington under chapter 173-303 WAC Dangerous waste regulations.

Animal carcasses

Animal carcasses more than 15 pounds are considered agricultural wastes. WAC 246-203-121 Disposal of dead animals and chapter 16.68 RCW Disposal of dead animals address the minimum requirements for this miscellaneous waste.

Disposal

While these rules allow for burial of animal carcasses with a minimum of three feet of cover and 100 feet from any well or surface water, this CSWMP recommends against this practice unless an emergency or disease outbreak occurs, whereby disposal by means of burial is deemed essential to prevent the spread of disease and authorized by the health officer. In these rare instances, the minimum requirement of three feet of cover and 100 feet distance from any well or surface water would apply.

The following practices for disposal of dead animals in Clark County are recommended. All carcasses must be transported to the disposal site within 24 hours.

- Rendering by a licensed rendering company;
- Incineration at a permitted facility suited for this waste type;
- Composting utilizing "Best Management Practices" found in Mortality Composting Management Guidelines developed by the Washington Department of Agriculture.
- Disposal at a CRC transfer station.

Animal feeding operations should incorporate best management practices for managing animal carcasses generated from ongoing operations.

Asbestos

Asbestos is a naturally occurring group of heat-resistant and fibrous minerals. Asbestos was historically used for insulation, fire-resistant coatings, automotive brakes, adhesives, roofing, drywall, ceilings, and thousands of other building materials and products. Asbestos is now considered a dangerous material because repeated inhalation of asbestos can result in lung damage and cancer. Cases of repeated exposure may lead to mesothelioma and death. Specific uses of asbestos have been restricted through regulations passed by the EPA from 1970 to 2019, though most uses of asbestos are now banned. In 2024, the EPA announced a final rule to prohibit ongoing uses of chrysotile asbestos, which is the only known form of asbestos currently used in or imported to the United States.

Regardless of a new ban, it remains common for buildings constructed up until the late 1990s to contain asbestos in levels requiring special handling and disposal during construction and demolition projects. Environmental pollution from asbestos is dangerous mainly due to the risk of human exposure to the material. Asbestos does not decompose and can remain a threat for long periods of time.

Disposal

All waste materials that may contain asbestos must have testing completed prior to disposal, including interior walls and ceilings, exterior walls, flooring, insulation, fireproofing material, heating system components, gaskets, roofing material, electrical material, and other miscellaneous items such as adhesives, caulks, patching, and window glazing. Prior to disposing of asbestos containing materials, CRC must be contacted to obtain disposal forms and packing instructions. Disposal for materials that have tested positive for asbestos is available at CTR and West Van transfer stations.

Asbestos-containing materials disposed at CTR and West Van are carefully bagged and transported in uncompacted roll-off containers for special disposal at the Wasco County Landfill in Oregon. Staff at Wasco County Landfill have a separate designated area of the landfill where asbestos is safely buried. Protective measures are used to prevent asbestos material from being released into the air.

Ash

Ash is generally defined as residue including any air pollution flue dusts from combustion or incineration of material including solid wastes, biomass, and fuels. Ash from municipal solid waste incineration is regulated under chapter 70A.315 RCW and chapter 173-306 WAC Special incinerator ash management standards. Ash from other forms of incineration, such as sludge or wood waste incineration, is regulated under chapter 173-303 WAC Dangerous waste regulations or 173-350 Solid waste handling standards, depending on the characteristics of the ash. In Oregon, municipal solid waste ash is regulated by Department of Environmental Quality under OAR 340-93-190.

Disposal

The City of Vancouver Westside Wastewater Treatment Plant currently incinerates its de-watered sewage sludge, generating ash in need of disposal. Solids from the Marine Park Wastewater Treatment Plant are also handled at the Westside Plant. The incinerator ash and grit is transported to Finley Buttes Landfill through the West Van transfer station. The City of Vancouver is investigating options to utilize the ash as an additive to construction or building materials.

The Georgia-Pacific mill located in Camas generates ash from burning hog fuel to power the boiler. The mill indicates that the annual amount of hog fuel boiler ash it has generated and landfilled has varied considerably from year to year.

Biomedical waste

Biomedical waste (also referred to as “red bag,” infectious, or biohazardous wastes) is generally defined as infectious and injurious waste originating from a hospital, medical office, veterinary, or hospice care facility. A uniform statewide definition for medical waste is provided in RCW 70A.228.010, which outlines specific items. There are federal and Washington state regulations directed specifically at the storage, transport, and disposal of biomedical wastes. Washington Utilities and Transportation Commission (WUTC) regulates the hauling of medical wastes under its “G-certificates,” issued under chapter 81.77 RCW authority. Rules relating to the safe transportation of biohazardous or biomedical waste are found in chapter 480-70 WAC and Title 49, Code of Federal Regulation, Parts 170-189. Incinerator burn requirements are found in 70A.205.605.

In addition, the Oregon medical waste requirements must be observed by Clark County as a community exporting waste to Oregon landfills. Oregon requirements apply to medical waste generated from medical facilities and residences. State of Oregon regulations ORS 459.386 through 459.405 and OAR 340-93 establish general rules pertaining to the management of infectious wastes in Oregon.

Clark County Solid Waste Code (Chapter 24.12) contains infectious waste segregation requirements for generators, requirements and standards for transporters, requirements and standards for storage/treatment facilities and biomedical waste disposal requirements.

The amount of biomedical waste generated annually in Clark County is estimated to be several hundred tons. This volume is expected to increase in the future due to continued population growth, as well as increased biomedical waste segregation by smaller generators. Some smaller generators may still be disposing biomedical waste with their general solid waste. However, an increased level of awareness, liability, and the availability of collection services for smaller generators has likely reduced illegal and improper disposal.

Currently, many large- and small-quantity medical waste generators in Clark County appear to be properly informed and knowledgeable about proper biomedical wastes practices. Clark County provides education about correct management practices for residential generators. The community education program targets residential generators who produce small quantities of sharps. Residential sharps generators are provided education about correct containers and the collection opportunities afforded them by pharmacies, transfer facilities and their solid waste collector.

Disposal

Commercially generated biomedical waste: Medical waste-certificated haulers provide collection services to larger generators of medical waste, such as hospitals, clinics, labs, and veterinarians. The certified hauler collects untreated biomedical wastes that have been properly packaged from large and small biomedical waste generators in the county. Waste Connections has authority to collect in Clark and Skamania counties. Some generators self-haul their biomedical waste to permitted disposal facilities in accordance with federal and state regulations. The CRC transfer stations provide drop off collection locations for syringes only at each facility.

Law requires pathological and chemotherapy waste to be incinerated. Pathological and chemotherapy waste from local hospitals is packaged in yellow marked containers and picked up by a certified hauler for transport to the final incineration.

Residential generated biomedical waste: There is a growing amount of medical waste in the residential waste stream. Currently, there are pharmacies within Clark County which are accepting used containerized syringes back from their customers. Residents may also take used containerized syringes to any of the three transfer stations in sharps containers.

Syringes from residential customers are sometimes inadvertently delivered to West Van through the residential recycling collection system and these pose a serious issue for worker safety as sorters might be accidentally stuck. When these are discovered, procedures are in place for the syringes to be carefully removed from the recyclables picking line when the materials are sorted. The collector has implemented special communications to caution the public about proper handling of household syringes/sharps.

Biomedical wastes must be transported by a permitted hazardous waste service provider, and disposed at permitted treatment, storage, and disposal facilities. Wastes may be landfilled, sterilized, or incinerated, following state and federal laws.

Bulky waste

Bulky wastes are large items of refuse such as furniture and other oversized wastes, that would typically not fit into residential disposal containers. For the purposes of this CSWMP, bulky wastes do not include white goods, such as washing machines, water heaters, clothes dryers, stoves, refrigerators, and freezers.

Disposal

Currently, residential bulky wastes are not collected on regular routes by the WUTC certified collection company, Waste Connections. On-call services are available through Waste Connections for additional fees, dependent on the customer's location and the type of bulky waste. Several small private collection operators advertised as "junk removal" or "clean-up" companies, may perform waste removal, transportation, and disposal of residential bulky wastes. The hauling of waste by these private collection operators has strict rules from the WUTC to prevent hauling activities that would require a G-Certificate, held by Waste Connections.

In the cities of Vancouver and Camas, bulky wastes are collected at the curb on certain days of the week by reservation only. In the City of Vancouver, this service is provided by the contracted hauler Waste Connections. In the City of Camas, the service is provided by the City Solid Waste Division. Common items such as chairs, sofas, and mattresses have set collection rates.

The City of Vancouver sponsors annual neighborhood cleanup events for bulky wastes in active and recognized city neighborhoods.

The City of Ridgefield holds an annual community clean up event that accepts bulky wastes. Proof of residence is required to participate.

Some bulky wastes from larger non-residential generators are collected by Waste Connections, often via drop box service and some bulky wastes are self-hauled by both residential and non-residential generators to CRC transfer stations.

Contaminated soils

Contaminated soils are defined in WAC 173-350-100 as soils removed during the cleanup of a hazardous waste site, a dangerous waste facility closure, corrective actions, or other clean-up activity and which contain harmful substances but are not designated dangerous wastes. Ecology has established guidance for the handling and disposal of contaminated soils in Washington. Petroleum-contaminated soils are regulated in Guidance for Remediation of Petroleum Contaminated Sites (WA Ecology No. 10-09-057). In Oregon, contaminated soils are regulated under OAR 340-93-170.

Disposal

Finley Buttes and Wasco County landfills are permitted to dispose of petroleum-contaminated soils. Other landfills permitted to dispose of petroleum contaminated soils are the Roosevelt Regional Landfill in Klickitat County, WA, and the Columbia Ridge Landfill in Gilliam County, OR. Petroleum-contaminated soils can also be delivered to the CRC transfer stations, with advance notice.

These soils must be handled in accordance with chapter 173-303 WAC. Guidance should be obtained from Ecology on this issue. Some petroleum-contaminated soils can be treated on-site to lower their contamination levels.

Construction and demolition wastes

Construction and demolition (C&D) projects produce a wide variety of debris and wood waste that make up 24.2% of landfilled waste in Washington by weight. C&D waste is produced by residents and businesses through remodeling projects, new construction, building demolitions, building deconstructions, land clearing, and other related activities. The term C&D mainly refers to wastes that are not hazardous and can be disposed of in a landfill, though C&D projects also produce hazardous waste. The diversion of C&D materials from the landfill relies on the availability of reuse and recycling markets, and the participation of the construction industry.

Waste uniquely produced during C&D activities can include the following six material types: bulky waste, deconstruction materials, demolition debris, hazardous waste, inert waste, and new construction materials.

Hazardous waste, also known as dangerous waste, is commonly produced from C&D projects and must be managed according to Dangerous Waste Regulations, chapter 173-303 WAC. Building components being disposed of must be screened to designate dangerous wastes. Hazardous C&D waste can include asbestos, leftover paint, adhesives, aerosols, solvents, used shop towels, materials coated with lead paint, lead pipes, materials containing PCB, contaminated soil, contaminated water, mercury-containing lights, radioactive smoke detectors, and more. Waste designated as dangerous must be disposed of through a certified hazardous waste management company. Some hazardous materials may be recycled, including paint, motor oil, batteries, mercury-containing lights, and other materials through product stewardship programs and universal waste rules. The amount and types of hazardous waste produced will impact a business' generator status. See Chapter 7: Moderate risk waste for more details on hazardous waste.

Disposal

New construction materials that are left over from C&D projects can be reused, recycled, or disposed of. This may include any of the materials described above that were purchased new for use on the project. New construction materials are among the easiest materials to reuse or recycle because they are produced in a predictable schedule and are less likely to be mixed with municipal solid waste or hazardous items. Leftover materials are not typically saved for future projects, though their clean state allows them to be easily separated and recycled where vendors are available. Hazardous products leftover from new construction may include paint, adhesives, aerosols, and cleaning chemicals, which can be saved for future projects. The unused hazardous products must be disposed of according to hazardous waste regulations when discarded or unwanted.

Disaster debris

The regional solid waste management system is responsible for the handling of debris resulting from a disaster, both natural and man-made. The local disaster debris plan describes the policies and procedures in managing debris on a regional basis, specifies goals and recommend implementation strategies, and provides tools and reference information to facilitate debris management and recovery.

The plan ensures that the disaster debris efforts are coordinated, efficient, effective, and environmentally sound. The plan contains the following:

- Disaster debris will be managed according to the following hierarchy — reduce, reuse, recycle, recover, and landfill.
- Debris will be removed from the right-of-way.
- Debris clean-up areas will be prioritized to remove first from public roads and streets and to allow access to emergency operations facilities and essential public facilities.
- Eliminate debris-related threat to public health and safety.
- Debris removal from private property is the responsibility of the property owner.
- Disaster debris that is to be placed in a landfill will be taken to a regional solid waste system facility.
- Normal garbage service will be restored as quickly as possible.

Dredge spoils

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

Disposal

Dredge spoils are subject to the same waste designation rules as contaminated soils. Independent testing and approval is required before dredge spoils will be accepted for landfilling. In addition, dredge spoils must be dewatered before they are accepted for disposal. Wasco County Landfill operates a dredge spoils dewatering facility in The Dalles, OR to process dredge spoils prior to disposal in the landfill. Dewatered and dried dredge spoils are acceptable cover material at Finley Buttes, Wasco County and other landfills in Washington and Oregon. If testing reveals the contamination is below certain levels, spoils can be used as fill with certain conditions.

Industrial process waste or sludge

Sludge is generally defined as "a semi-solid substance consisting of settled sewage solids, combined with varying amounts of water and dissolved materials generated from a wastewater treatment plant or other industrial source." Industrial process waste includes materials that have similar physical properties to sewage sludge but may contain inorganic chemicals that result from a specific industrial process.

Ecology regulates industrial process waste or sludge as solid waste in Clark County. Wastewater treatment by-products that qualify as Class A or Class B biosolids are subject to chapter 173-308 WAC.

Testing requirements regarding dangerous waste designation of industrial process waste may be subject to management requirements of chapter 173-303 WAC. Waste designated as "dangerous" is outside the scope of this plan. In Oregon, sludge disposal is regulated by DEQ under OAR 340-94-040.

Disposal

Permitting and regulation of biosolids (wastewater treatment solids) is subject to chapter 173-308 WAC, with oversight provided by Ecology and local health departments with delegated authority. The amount of industrial process waste or sludge generated in Clark County is largely unknown because there are no requirements to report.

Paper and mill wastes

This section specifically addresses only the manufacturing by-products of the county's paper mills, as well as other mills. These wastes include, but are not limited to wastewater treatment sludges, calcium carbonate and mud waste.

Disposal

Georgia-Pacific operates Lady Island Landfill, a private landfill, adjacent to its Camas mill. This facility is permitted as a limited-purpose landfill, which may accept both wood waste and dried wastewater sludge. The mill generates only incidental amounts of wood waste due to modification in the milling process (i.e. greater combustion of primary solids and the facility no longer receives whole logs). The mill does generate ash from their boiler that is powered by a combination of hog fuel and fossil fuel for energy recovery. Ash generated from boiler operations is either placed in their limited-purpose landfill or hauled to a regional landfill. Based on Georgia-Pacific waste generation rates of the last several years, the capacity of the Lady Island Landfill exceeds the 20-year period covered by this Plan.

Street sweepings and vactor wastes

Vactor wastes or catch basin wastes are collected through private collection contractors and local municipal jurisdictions. Street sweeping wastes are collected primarily through local municipal jurisdictions. The material consists of soils, gravel, vegetative matter, and various solid wastes such as cigarette butts, paper and beverage containers. The soils and vegetative matter are generally contaminated by hydrocarbons.

This section addresses only those wastes collected and managed by local jurisdictions. These wastes are typically considered "solid waste" as defined by chapter 70A.205 RCW, and are managed in accordance with applicable federal, state and local regulations.

Disposal

Clark County Public Works collects and stores street sweeping material at a permitted processing site located at Whatley Pit. The cities of Vancouver, Camas, Washougal, and Battle Ground and the Washington State Department of Transportation also deliver to Whatley Pit and participate in funding of the facility. Facility use is guided by an interlocal agreement.

When a large enough pile is accumulated a large trommel screen is brought on site to remove the solid waste debris. The screened organic material is utilized as fill. If testing reveals the contamination is below certain levels the material may be used as a soil amendment.

For vactor waste, Clark County Public Works operates a decant facility to process vactor waste generated in the county. The facility is located at Whatley Pit. The cities of Vancouver and Battle Ground as well as the Washington State Department of Transportation also utilize the decant facility at Whatley Pit for waste collected in vactor trucks.

The City of Camas operates a decant facility at the Camas Public Works Operation Center. Other local jurisdictions manage these materials through similar means.

The material collected at the Whatley Pit decant facility is dewatered and screened to remove the excess liquids and debris. The remaining organic material may be used as soil amendment if testing reveals contamination is below acceptable levels.

Tires

Waste tires require special consideration due to the fire risk and potential for pests, such as mosquitoes. Waste tires include "tires that are no longer suitable for their original intended purpose because of wear, damage or defect" (chapter 70A.205 RCW). WAC 173-350-350 governs waste tire storage and requires a solid waste permit for facilities that store more than 800 waste tires or over 20 tons of heavy equipment tires. For statewide tire disposal information, visit ***Ecology's waste tire page***.

Illegal dumping of tires is an ongoing concern. Tires collected within the county right-of-way are temporarily stored at county maintenance facilities before transport to processing facilities.

Disposal

Currently, waste tires are accepted from self-haul residential and non-residential generators at the CRC transfer stations. The waste tires are segregated by tires on rims and tires not on a rim then placed in trailers for shipment. Tires on the rim are transported to Finley Buttes Landfill where they are removed from the rim, shredded, and landfilled. Tires that are off the rim are transported to RB Tire Recycling located in Portland, OR. RB processes the tires into a crumb rubber product that is utilized in a variety of products including rubber mats. Recycled tires are also used as fuel, construction material, and in other re-use applications.

Waste tires are also collected by retail tire outlets and stored for later transport to processing facilities. Large retail outlets transport their waste tires to various operations. Currently, most waste tires generated within the county are shredded and then recycled.

As part of the City of Vancouver's Spring Clean-up program, each garbage customer receives a coupon redeemable for recycling/disposal of up to four passenger tires. Only Vancouver residents within the city limits are eligible to participate. Tires are accepted at the City of Ridgefield annual community cleanup event with proof of residency.

Vehicle wastes: Hulks and auto fluff

Vehicle hulks are not specifically defined in chapter 173-350 WAC. For the purposes of this CSWMP, "vehicle hulks" are defined as abandoned or discarded vehicle bodies, including recreational vehicles. ORS 459.247 prohibits the disposal of vehicle hulks in landfills. Auto fluff is generally defined as the lightweight material left over after vehicles are shredded and most metals are removed.

Travel trailers and camper shells are considered municipal solid waste and bulky wastes, not vehicle hulks. Mobile homes are also not considered hulk vehicles however, the transportation, demolition, and disposal of mobile homes involve regulatory challenges like hulk vehicles. Clark County has collaborated with the various agencies having jurisdiction over the transportation, demolition, and disposal of mobile homes to develop information to assist residents and contractors with the process.

Code enforcement officers in the cities and Clark County, along with local law enforcement agencies (including the Clark County Sheriff's Office and the Washington State Patrol) jointly administer the abandoned vehicle hulk management program in Clark County. When an abandoned vehicle is determined to be a public nuisance, one of these agencies contacts the property owner and requests that the vehicle be removed or stored out of sight. If the registered owner of the vehicle cannot be located or is not responsible, the affected property owner can be authorized by the local law enforcement agency to have the vehicle towed and scrapped. Noncompliance with the request will result in the agency getting a licensed hulk hauler to remove the vehicle. Sometimes the vehicles are filled with garbage, which creates additional costs.

Disposal

Metal is magnetically separated from auto fluff in the shredding process. The remaining material is not recyclable but may be used as cover material at a landfill.

Local wrecking yards and metal recyclers also accept vehicles for disposal when accompanied by a title certificate proving ownership. Auto hulks have fluids, refrigerants, air bags and tires removed, and then they are crushed and transported to

the auto shredder operation at Pacific Coast Shredding LLC in Vancouver or Schnitzer Steel Products Company in Portland.

Hulk vehicles delivered to the shredding facilities may contain fluids such as gasoline, oils, brake fluid and antifreeze. Clark County encourages the proper management of these fluids by residents or hulk haulers. Residents may set antifreeze and oil at the curb for recycling if they are a curbside recycling customer and follow the specific preparation requirements. Residents can also take antifreeze and oil to the transfer stations for recycling. Hulk vehicles may contain mercury switches. Clark County recommends the removal of mercury switches prior to shredding. Ecology's Mercury Switch Program assists wrecking yards with the cost of removing these devices prior to recycling. Pacific Coast Shredding has participated in the Ecology program since 2007.

White goods

Large household appliances, also known as "white goods," are defined as appliances, such as washing machines, water heaters, clothes dryers, stoves, refrigerators, and freezers. White goods are easily recycled for their metal value after an appliance has been stripped of insulation, plastic, glass, non-ferrous metals, lubricants, refrigerants, and other contaminants. Most of the materials in white goods are recyclable, but environmentally threatening components, such as PCB-contaminated capacitors in older appliances, mercury-containing switches and oil-filled compressors, or refrigerants in refrigerators, freezers or air conditioners can cause environmental contamination when damaged.

Disposal

White goods can be picked up curbside by the contracted or franchised haulers and are also collected or accepted by several private companies in Clark County. Some appliance companies accept self-hauled white goods or remove used white goods as part of the pick-up or delivery service for new appliances.

Companies may charge a handling or stripping fee for appliances that are self-hauled to their drop-off facilities or may also offer a payment or donation receipt based on an appliance's scrap value. WUTC-certificated and city-contracted haulers also provide curbside pickup of white goods upon request, generally for a fee. Most white goods, after stripping, are recycled through Metro Metals NW/Pacific Coast Shredding, Inc. in Vancouver. Additional metal recycling firms operate in Portland, OR and surrounding communities.

The City of Vancouver, in coordination with its contracted collector, offers each residential waste customer a single free curbside pickup of a major appliance during the year, when scheduled in advance through the hauler. Some City of Vancouver neighborhood associations also allow white goods to be dropped off during their annual neighborhood clean-up. The City of Ridgefield annual cleanup event includes items with freon such as freezers, refrigerators, and air conditioning units.

State and federal regulations to control the release of refrigerants into the atmosphere have significantly affected white goods handling. Refrigerants, such as Freon, are almost universally used in refrigerators, freezers and air-conditioning systems. In response to both the federal and state Clean Air Acts, no refrigerants may be released from refrigeration, commercial or industrial appliances. As a result, venting refrigerants during white goods processing or disposal is not permitted. White goods processors must recover refrigerants from appliances.

Ecology has adopted WAC 173-303-506, for the management of used or "spent" refrigerants. The rule also conditionally exempts spent refrigerants from chapter 173-303 WAC, Dangerous waste regulations, when they are reclaimed or recycled.

The CRC transfer stations provide central locations for the collection of white goods and bulky wastes. The transfer stations also assist in the distribution of public education materials concerning recycling opportunities for oversized wastes and current handling requirements for white goods.

8.3 Existing miscellaneous waste education and outreach programs

Wastes requiring special disposal considerations and technical knowledge pose unique challenges in ensuring proper and safe disposal. The programs outlined below are examples of efforts to address miscellaneous wastes in the regional waste system. For a more comprehensive list of education and outreach programs, refer to Appendix O.

C&D Waste Connections educator: Clark County's recycling contract includes requirements for the contracted hauler to employ recycling educators, including one part-time educator dedicated to C&D waste. Historically, this educator's role was limited to tracking and reporting waste and recycling data from customers seeking LEED® or other sustainability certifications during renovation or construction. This work plan expanded in 2022 to pursue additional elements to improve C&D recycling outreach. This role expansion includes providing more outreach materials, technical assistance, and research on recycling and reuse options for C&D waste that could be utilized.

C&D recycling toolkit: Voluntary recycling of C&D waste requires knowledge of where to recycle each material type, and the ability to source separate the materials to be recycled. Clark County published a C&D recycling toolkit in 2009 that listed regionally available recycling vendors of C&D waste like asphalt, carpet, drywall, insulation, metal, plastics, plumbing, roofing, and rubble. This toolkit is now outdated, as recycling vendors have changed over time. Oregon Metro published an updated 2018-19 toolkit that lists newer, regional options for recycling and salvaging materials, providing a more current resource for contractors and residents.

Developing and distributing an updated toolkit specific to Clark County would allow the inclusion of regionally specific contact information, recycling locations, and solid waste regulations that differ from Oregon. An updated toolkit could also include resources and general guidance for material reuse, deconstruction, and waste reduction. Updating these resources would also allow for the possible expansion of recycling options listed in the regional recycling directory known as Recycling A-Z and the RecycleRight app. A new toolkit could be developed internally by Solid Waste staff or completed through a qualified contractor.

8.4 Planning issues

Are there ways to divert more reusable and recyclable materials from C&D waste streams?

There is a widespread need for more recycling of C&D materials, and this relies heavily on locally available recycling processing or transfer facilities. Most C&D materials that enter the transfer stations in Clark County are not recycled. Various recyclers of specific C&D materials operate privately in Clark County, though it is for limited source separated material at various locations. No companies are recycling mixed loads of C&D waste in Clark County.

One method to increase C&D recycling, as used by King County, WA, is to build C&D recycling markets through an ordinance requiring defined types of C&D waste to be recycled at designated C&D recycling facilities. As of 2022, there are no existing facilities in Clark County that recycle C&D waste on a large scale, but an ordinance directing C&D material to a recycler would incentivize larger C&D recyclers to open operations in Clark County. To approve such vendors, Clark County would request proposals to enter agreements with private C&D recyclers, who could then open locations in the county.

Such agreements would include strict operational and administrative requirements like the following:

- Compliance with all applicable regulations, laws, and permitting requirements.
- Suitable techniques for screening incoming material to prevent accepting municipal solid waste, hazardous waste, and other non-C&D wastes.
- C&D materials will be recycled at a specified rate.
- Incidental MRW will remain under a specified percentage of incoming material and will be disposed of following WUTC rules.
- Hours of operation are accessible.
- The facility will provide Clark County with accurate data, including measurement of incoming materials, quantity recycled, quantity landfilled, and other metrics as needed.

Other methods for increasing diversion could include partnerships with local planning departments and the contractor community. Having the ability to connect with builders before construction projects begin would allow Solid Waste and Recycling staff to provide waste management resources and education for free programs such as ***PaintCare*** and ***E-Cycle Washington***. Incentives to reduce waste could include reduced permit fees, or fees partially refunded after the contractor provides evidence of deconstruction, waste reduction, and other waste diversions.

Recycling C&D waste is additionally beneficial because it provides a new, marketable, usable resource without performing environmentally damaging activities like mining, mineral extraction, and deforestation. The marketable resource then provides local economic opportunities. The development of a recycling program for C&D waste will require a larger, comprehensive study of diversion methods and policy solutions for Clark County Solid Waste and Recycling staff and partners to consider. The research will allow Clark County Solid Waste and Recycling staff to gain expertise in C&D recycling, infrastructure needs, and general diversion methods to build into future programs and contracts.

9

SOLID WASTE COLLECTION

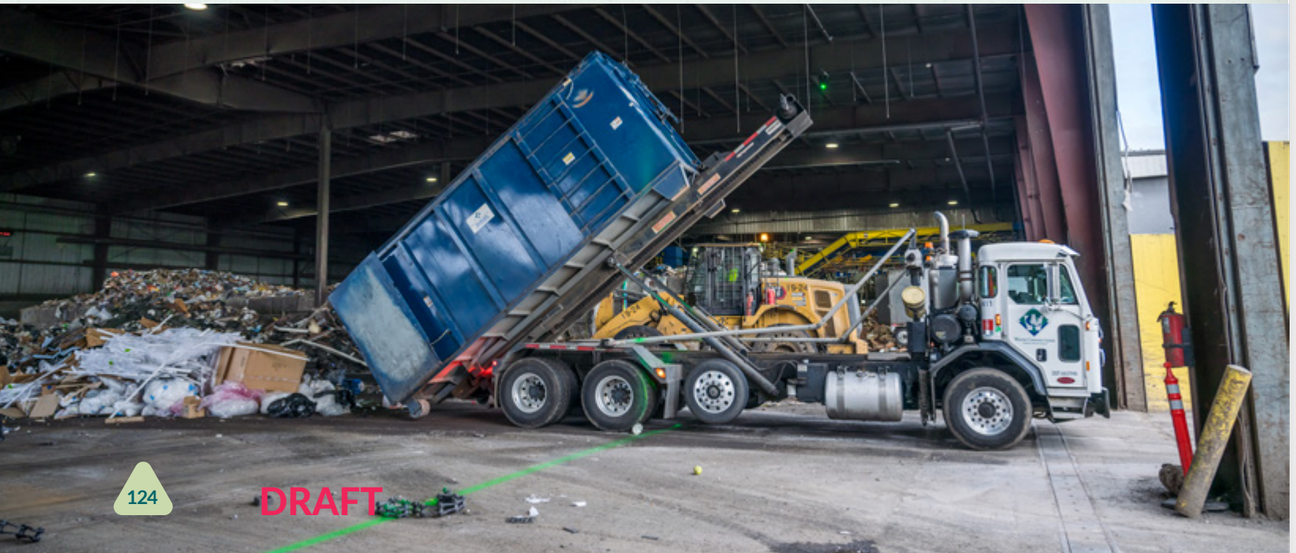
9.1 Introduction

Municipal solid waste refers to all solid and semisolid wastes, including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, construction and demolition wastes, abandoned vehicles or parts thereof, and recyclable materials (Chapter 70A.205 RCW). This chapter addresses the collection, processing, and disposal infrastructure for municipal solid waste in Clark County, including recyclable and organic materials. The category of collection and processing is divided into certified hauler services and self-haul. Certified hauler services include curbside residential pick up as well as commercial, industrial, and institutional pick up and drop box pick up. Self-hauling of waste includes residents and contractors hauling waste themselves from their businesses or residences to a transfer station.

Washington Utilities and Transportation Commission (WUTC), Clark County, and the cities of Battle Ground, Camas, La Center, Ridgefield, Vancouver, Washougal, and the town of Yacolt are responsible for the management of solid wastes within Clark County. Waste Connections of Washington (Waste Connections) is privately contracted to provide services for garbage, recycling, and yard debris/organics within the county boundaries.

Clark County Public Health Solid Waste Enforcement has authority over public health and safety for garbage collection in all of Clark County, including the cities and towns. Solid Waste Enforcement issues permits for solid waste storage, collection, transfer, and disposal according to chapter 70A.205 RCW, chapter 173-350 WAC, and Clark County Code Chapter 24.12.

Collection services and requirements are dependent on the type of collection system being utilized. Systems vary in who can provide services, rate approval, bill responsibility, operating conditions, and whether a subscription of the service is voluntary or mandatory.



9.2 Conditions assessment

Rate setting and billing

In 1961, state law established that solid waste collection services should be available to all residents of the state at rates that were fair, just, and reasonable. Rates or fees charged for garbage collection in Clark County vary by area and service provider.

Rate setting for refuse and garbage collection and recyclable materials collection also needs to be structured to provide incentives to reduce and recycle wastes while fully recovering program costs to the extent allowed by regulatory agencies.

Rates are evaluated and adjusted annually to reflect current costs. Updated information on fees is provided on the Waste Connections website, broken down into ***residential*** and ***commercial*** rates.

Urban-rural designation

State planning guidelines require that counties develop clear criteria for designating areas as urban or rural for the purpose of providing solid waste and recycling services. The urban-rural designations are important because these are the basis for determining the level of service that should be provided for recycling and other solid waste programs. For example, state law (RCW 70A.205.045(7)(b)(i)) requires that recyclables be collected from homes and apartments in urban areas, whereas drop-off centers can be used in rural areas.

The solid waste system in Clark County meets this requirement by providing services that meet the unique needs of the community. Designation of urban and rural is determined by considering total population, population density, and other applicable land use or utility service plans. Additionally, anticipated population growth and presence of other urban services are considered when planning.

Residential collection services

Service options

Service providers have many options that include varying container sizes, frequency of service, and subscription opportunities. These options vary based on the jurisdiction being served and contractual agreements. The options provided and selected will change the overall cost to the consumer. A summary of the collection profile in each jurisdiction is provided in Table 9.2.1.

Table 9.2.1: Clark County curbside garbage and recycling residential services

Jurisdiction	Contract	Mandatory	Bulky items (fees may apply)	Subscription options - garbage	Subscription options - recycling	Cart size - garbage	Cart size - recycling
Camas	City	G/R	No	W EOW	W	35 65	65
Ridgefield	City	G	Yes	W EOW M	EOW	20 32 64 96	95
Vancouver	City	G/R	Yes	W EOW M	EOW	20 32 64 96	95
Washougal	City	G/R	Yes	W EOW M	EOW	40 96	95
Other urban (Battle Ground, La Center, Unincorporated Clark County)	UTC	R*	Yes	W EOW M	EOW	20 32 64 96	64
Rural (includes Yacolt)	UTC	No	Yes	W EOW M	Varies	20 32 64 96	Varies

G: Garbage **R:** Recycling **W:** Weekly **EOW:** Every Other Week **M:** Monthly

* Recycling is mandatory if garbage frequency is weekly or EOW.

Source: WCW rates page, City of Camas utility page, and individual city contracts

WCW rates page link: ***https://wcnorthwest.com/residential-rates***

City of Camas utility page link: ***https://www.cityofcamas.us/publicworks/page/garbage-services***

Minimum collection service levels: Efforts are being made statewide to establish minimum collection standards and services. Minimum collection service level options include providing recycling for all garbage customers in Clark County unincorporated and rural areas and providing garbage and recycling for all customers in urban growth areas.

Universal collection services: Universal collection services require residents and businesses to pay into the solid wastes management services regardless of if they choose to participate in the service as provided. In urban communities, universal services offer the benefit of maximizing route efficiency, reducing greenhouse gas emissions, and reducing the overuse of self-haul services at the county's three transfer stations. It also works on economies of scale and helps keep rates low by increasing the participation that spread fixed costs over a larger population. The unincorporated areas of the county, as well as the cities of Battle Ground, La Center, and the town of Yacolt, do not have a universal garbage collection. Waste generators have the choice of either subscribing to collection services provided by their WUTC-certificated company or self-hauling to a permitted disposal or transfer facility.

Bundling services: Bundling is when the price a residence or business pays for collection service includes more than one service such as garbage, recycling, and/or yard debris/organics. Bundling promotes greater participation and helps increase recovery rates. It also creates route efficiencies like those of universal collection services. By spreading these costs over greater numbers of people, bunding helps to keep rates affordable. Recycling services are commonly bundled with garbage service and is considered a best practice in solid waste collection policy.

Bulky items: Furniture, appliances, electronics, or tires can be picked up curbside when requested. This service is available in Vancouver, Ridgefield, Washougal, unincorporated Clark County and the rural areas of Clark County. The Waste Connections rates page provides a detailed list of accepted items and associated cost.

As part of the City of Vancouver contract, all single-family residents within the city limits who have active garbage service are eligible for one curbside disposal of up to five bulky items, each item weighing less than 100 pounds, for no additional charge. Additional pickups may be scheduled for an additional fee.

City of Camas residents can request pick up of a variety of large items for an additional fee (based on the item's size and weight), by contacting the city utility customer service line.

Special collection events: Special collection events are a way of collecting materials that are exceptions to regular collections services. This can be bulky items, HHW, or special recycling material such as rigid plastics or polystyrene. Special collection events work well when built around other events to create awareness synergies. These can be annual city festivals, the county fair, or neighborhood events. Special collection events are also a great time to partner with other organizations, such as reuse and repair, green gardening groups or even community health organizations.

In rural areas of the county, these events can supplement recycling collection for standard items as well. Special collection events provide very clean streams of materials due to active monitoring and therefore offer better market value for source separated material which can help offset costs associated with hosting an event.

Garbage collection services

Garbage in Clark County is currently collected by both private companies and municipal government agencies. Table 9.2.2 provides the service provider information and associated WUTC certification number.

Table 9.2.2: Service provider information

Service provider	WUTC certificate number	Address
Waste Connections	G-253	9411 NE 94th Ave. Vancouver, WA 98662
Waste Connections	G-101	PO Box 148 Kelso, WA 98526
City of Camas	None	616 NE 4th Ave. Camas, WA 98607

State law provides the following three categories under which garbage collection services (excluding recyclable materials collection) are administratively authorized and controlled:

State-certified collection: Since 1943, the Washington State Legislature has granted cities and towns the authority to require all residents and businesses to participate in a city mandated waste collection and disposal system. In 1989, the authority was expanded to include the collection of recyclables. Cities and towns implement this authority through their municipal or contracted collection programs. For cities which do not provide collection themselves or through contract, the WUTC is responsible for ensuring that the state certificated hauler serving the city follows the mandatory service and subscription ordinance. RCW 81.77 directs the WUTC to supervise and regulate private solid waste collection companies in the state of Washington. Companies are required to obtain a certificate from the WUTC declaring that the company is qualified, willing, and able to provide the outlined service, specify categories of solid waste that can be collected, and outline the geographic service area.

As part of its legislative mandate, the WUTC audits these companies for fair rates, proof of adequate insurance, operational safety, and requires annual reports. Any solid waste collection company, including certificated companies, may also provide service under contract with an incorporated city or town. The WUTC's authority covers private collection companies that operate in unincorporated areas of a county and in incorporated municipalities where the city chooses not to regulate through other means. City contracted collection services are not subject to WUTC control. Collection systems directly operated by city crews and equipment are also exempt from regulation by the WUTC.

County controlled collection: Statutory restrictions imposed upon counties by RCW 36.58A limit a county's authority concerning solid waste collection. A county currently may provide collection services itself or through direct contract only if no qualified private company is willing or able to do so. In addition, a county may not provide service in an existing certificated area unless it acquires rights by purchase or condemnation. Except in the circumstances stated above, the county is prohibited from directly managing or operating solid waste collection systems. It is unlikely that such a combination of circumstances would ever occur within Clark County. However, a county may exercise limited control of solid waste collection services in unincorporated areas through the adoption of service-level ordinances. Service-level ordinances can establish the types and levels of services to be provided to both residential and non-residential customers. In addition, such ordinances can encourage rate structures that promote waste reduction and recycling activity.

City-controlled collection: Cities and towns have the authority to make decisions about the collection of solid waste within their jurisdictional limits. Three types of collection options are allowed per Washington state law. **Within Clark County, the cities and unincorporated areas utilize the following options:**

- **Municipal:** This approach utilizes municipal employees and equipment to collect waste. The City of Camas uses this approach for garbage collection.
- **Contracted with a private company:** Incorporated cities and towns may elect to contract with private companies for waste and recycling collection. Services provided by the contractor and regulated by the jurisdiction need to comply with Chapter 70A.205 RCW. Battle Ground, Ridgefield, Vancouver, and Washougal use this approach and have a contract with Waste Connections.
- **WUTC certificated:** With this collection method, cities can delegate solid waste collection authority and responsibility to the WUTC. The cities allow the WUTC-certificated hauler to provide service under WUTC regulation at rates approved by the WUTC. It is the collection company's responsibility to collect fees for services rendered and to remit a licensing fee, franchise tax, or fee based on gross receipts to the city. The license, therefore, benefits the city by generating revenues while the WUTC remains the regulatory authority for licensed collection. The City of La Center and the town of Yacolt as well as the unincorporated areas of Clark County use this approach by allowing the hauler certificated for their area (Waste Connections) to collect residential and commercial solid waste within their municipal limits.

In 2022, to accommodate the county's anticipated growth for the next five to seven years, Waste Connections began preparing to transition to automated residential garbage collection. This process required rerouting the entire county and notifying customers of new service dates. Service date changes did not apply to residential customers in Vancouver city limits, Camas, Ridgefield, and Washougal as they have

individual collection contracts with Waste Connections. Waste Connections fully transitioned from customer-provided garbage carts to 95-gallon roll carts in the rural service area and cities' service areas (cities of Battle Ground, La Center, and the town of Yacolt). In 2023, Waste Connections completed the transition to automated garbage carts in the Urban Growth Area of Clark County. Upgrading garbage carts in these select areas allows the drivers to operate safely from the cab instead of out on busy roadways, thereby reducing injury and accidents.

Recycling collection services

Recyclable material is a commodity and is regulated differently from general solid wastes in the state of Washington. The collection and transportation of recyclable materials from single-family and multifamily residences are regulated under RCW 81.77 and RCW 36.58. Under these statutes, counties have the authority to directly regulate the collection of source-separated recyclable materials. Local government jurisdictions, including both counties and cities/towns, have the option to either contract directly with a private collection company to provide residential recyclable materials collection services or delegate the responsibility to the WUTC. If the local government contracts directly with a collection company, then it regulates collection activities and the WUTC is not involved. If the authority is delegated to the WUTC, then a WUTC-certificated collection company would provide the collection service. In addition to these two options, cities have the option of providing recyclable collection services within their jurisdictional boundaries by using city personnel and equipment. The self-hauling of recyclable materials by generators to recycling centers, transfer stations, or other locations is not regulated.

In Clark County, Waste Connections is the sole contracted hauler providing residential recycling services, including single-family and multifamily residences. This allows for consistency across the county regarding acceptable materials, bin size and color as well as in methods to properly prepare recyclable materials. This continuity allows for unified messaging and prevents customer confusion when moving around the county. Single-family recycling services are offered every other week except for Camas and Battle Ground which maintain weekly service. Multifamily residences have the option of weekly and every other week collection.

In 2009, the county transitioned to a roll cart-based collection system for both single-family and multifamily residences. The carts are for commingled paper, plastic, and metal recyclables; glass bottles are collected separately in a bin next to the cart. Currently, the roll cart size varies by location. Refer to Table 9.2.4 for the current offerings. The blue carts have black lids that are hot stamped with the accepted list of recyclables. Select jurisdictions that separately contract recycling services from the county have their carts hot stamped on the side with their city logo. County recycling carts are hot stamped "RECYCLE."

Some items cannot be commingled due to risk of contamination and safety. Single family residential customers are provided with an 11-gallon dark green bin for glass that is set out next to the blue bin. While containers are not provided for motor oil and antifreeze recycling, directions are provided to fill clear gallon jugs and place next to the blue bin.

Batteries are also accepted curbside when properly prepared. Preparation includes taping the ends and placing in a clear plastic bag on top of the recycling bin. Battery contamination in the commingled bins have become a concern. Alternative methods of recycling batteries are preferred over curbside services.

Yard debris and organic collection services

The service level for compostable materials varies throughout Clark County. All compostable materials services are subscription based. Subscription options and availability very based on the location of the residence. Refer to table 9.2.3 for an explanation of service levels by locations.

The City of Vancouver and the City of Ridgefield have expanded yard debris curbside collection to add food waste including pre-and and post-consumer food waste, such as whole or partial pieces of produce, meats, bones, cheese, bread, and cereals. Residents received a complimentary kitchen pail to collect food scraps and then empty into the green cart. Households are instructed to layer food scraps and yard debris to reduce any potential odors and/or vectors as the organics cart is picked up every other week. The remaining areas of the county allow only yard debris in the curbside collection. More information concerning organic materials including food waste, refer to Chapter 6: Organics.

Any additional yard debris above normal service level will be billed as extra yard debris. For public health reasons, all food waste must be contained within the organics cart and must not be included in any extra yard debris placed out. Extra yard debris can be placed in a Kraft paper bag, spare can or bundled at the curb. Loose yard debris cannot be collected at the curb.

Self-haul

In addition to curbside services, residents may also self-haul their garbage, bulky items, recyclable materials, and household hazardous waste to public drop-off centers at the three CRC transfer stations. Additionally, community collection events may be scheduled periodically throughout the year.

Commercial collection services

Commercial recycling

Clark County has a competitive commercial recycling environment, with commercial recycling services provided by a variety of service providers. Some operators specialize in paper fibers such as office paper or corrugated cardboard or wood wastes, while others offer a full array of services for most commodities. The county actively supports commercial recycling through technical assistance programs and promotional educational materials. The degree of source separation required varies by vendor. Source-separated recyclables may be commingled (combined with other source-separated recyclables) to increase collection efficiencies. Waste collection systems can readily adapt to changes in customers served with additional equipment, manpower, and periodic adjustments to route schedules. As collection service within the regional area is performed under contract, these contract rates take into consideration increases in the customer base. WUTC also can review rates for G-certificated haulers which also incorporates a review of the customer base.

The collection and transport of recyclable materials from nonresidential generators are regulated by the WUTC under RCW 81.80. Three types of authorities are established in RCW 81.80, including common carriage, contract carriage, and private carriage. Counties have no authority to regulate the collection and transportation of nonresidential recyclable materials. Cities may enter non-exclusive contracts with providers of non-residential recycling services or may establish a regulatory framework to direct the nature of their activity and services within the jurisdiction. Local businesses, however, may choose to make other collection arrangements.

Common carriers are permitted by the WUTC and can collect a specific commodity or multiple commodities within a designated geographic territory. Common carriers do not own the commodity being hauled; they are simply providing a transportation service for the owner. Common carriers are required to provide collection and transportation services to anyone requesting the service within the collection territory. Fees are negotiated between the carrier and the customer.

Contract carriers are permitted by the WUTC and can collect a specific commodity or multiple commodities from a single nonresidential generator. Contract carriers negotiate the tariff or fee paid for the service with the waste generator without WUTC involvement.

The City of Vancouver has established a licensing program that pertains to common carriers collecting recyclable materials within the city limits. A key purpose of this requirement is to obtain data on recycling activities within the jurisdiction. All recycling collectors obtain from the city a license which is renewed annually. Licensed recyclers must comply with the code requirements and are only to collect source-separated recyclables. An annual report on tons or cubic yards collected is required at the end of each year.

Commercial yard debris and food waste

Under current law, all nonresidential collection of yard debris for composting may occur in a competitive marketplace. Solid waste haulers, disposal companies, private recyclers, private composters, and individual collectors are allowed to make collection arrangements with nonresidential generators, adhering to jurisdictional licensing requirements.

Food waste is a large sector of the garbage waste stream and diversion of food is a major legislative focus. The county is currently working with school districts, restaurants, and institutional entities in the development of food waste collection programs in an effort to meet the legislative requirements.

Commercial food waste collection: In 2022, approximately 100 businesses participated in the food scraps composting service. Methods of participation include shared service with other businesses through their property management company and directly subscribing to Waste Connections. Due to low participation in the voluntary composting service compared with the total number of food-related businesses, most of the food waste generated at businesses is still going to landfill.

School food waste collection: During the 2023-24 school year, Waste Connections provided weekly service to 62 schools for the collection of 368 food only carts. Using the EPA estimates of 150 pounds per cart and assuming a 36-week school year, approximately 993.6 tons (1,987,200 pounds) of food waste was diverted from the landfill and composted.

Retail food waste collection: Many large retailers utilize Divert and other processing systems for their food waste. Waste Connections currently services food waste drop boxes for several retail locations. This data gives an idea of how much food waste is generated from the retail sector. With the inclusion of food rescue in the Washington Organics Management Law (HB 1799), opportunities exist for diverting some of these tons to feed people and animals.

9.3 Processing and recovery

The county contracts CRC for the processing of residentially collected recyclables and all such recyclables in the county are delivered to West Van for processing. CRC also processes recyclables collected from areas outside Clark County at this same facility. Recyclable materials received through the curbside and multifamily collection programs are marketed by CRC and a portion of the revenue generated from the sale of these materials is returned to the City of Vancouver and contract hauler with the possibility of a percentage returning to the county.

The cities of Camas, Ridgefield, and Washougal have contracts that do not include provisions for recycling revenue share. CRC's transfer and disposal contract with the county requires the company to recover and recycle a minimum of 10% of the incoming disposal stream.

CRC meets its minimum annual recycling requirement by recovering materials from selected loads on the tipping floor. Most recovery is wood and metal, pulled from loose drop box or self-haul loads. Very little is recovered from compacted loads of mixed waste due to contamination and operational difficulties. Source-separated materials delivered to CRC drop-off recycling facilities by self-haulers are counted toward the minimum annual recycling requirement; however, materials recovered through CRC's source-separated recycling collection services and materials collected by county and city recycling collection contractors are not included.

9.4 Existing collection education and outreach programs

To increase participation in curbside services and reduce contamination of the recycling and yard debris/organics carts, educating the public is key. The programs outlined below are examples of efforts to educate the customer of proper use of the curbside services. For a more comprehensive list of education and outreach programs, refer to Appendix O.

Organics 101 – Curbside Composting: To increase participation and to prevent contamination, no-cost organics collection workshops are offered to residents multiple times a year through a partnership with Vancouver Solid Waste, Clark County Green Neighbors, and Waste Connections. The "Organics 101 – Curbside Composting" workshop focuses on what is and isn't accepted in the cart, how to maintain the cart and pail to keep them clean, and where the materials go after leaving the curb.

Mailers and informational resources: Waste Connections in collaboration with Clark County and contracted cities develops and distributes mailers and other resources

highlighting current topics and key changes to the services provided. This multilingual newsletter uses words and images to educate the public on what can and cannot be placed in the specific carts, how to dispose of hazardous items like medications, and safety precautions.

9.5 Planning issues

What opportunities are available to expand garbage, recycling, and yard debris/organics collection services?

An evaluation of the current Clark County solid waste system was conducted as part of the Regional Solid Waste Systems Study (Appendix I). Several opportunities were identified to explore including strategies to modify collection services such as expanding universal services, bundling bulky waste, conducting collection events, and eliminating on-call yard debris service in urban areas with the implementation of organics collection.

Additional opportunities include looking into current processing infrastructure to incorporate more automation to increase waste diversion rates.

What intervention points are available to reduce the burden of illegal dumping?

Illegal dumping and the burden it places on communities have a direct impact on the county's collection system. Bulky waste, couches, mattresses, and other similar items are frequently a result of inconvenient collection, lack of options for education, or the avoidance of costs. There are many ways and examples the county could develop a bulky waste pickup service for its residences. Vancouver offers a free collection service through Waste Connections for up to five items a year and Tacoma offers a twice a year call collection service. Other cities offer set out dates throughout the year when people can set items out for collection.

How can we increase capacity and participation in food waste collection services?

Given the March 2022 passage of Washington's organics law per HB 1799, Organics Materials Management (now added to chapter 70A.205 RCW), there's a need to evaluate the expansion of collection programs for yard debris and food scraps from residential and commercial customers.

In contrast to recycling collection, organics collection services are offered on a subscription basis throughout the county, except in the rural service area where service is not provided. Currently, the City of Vancouver and the City of Ridgefield have transitioned their yard debris collection programs to an organics collection service model. Currently, about 60% of residential Vancouver customers subscribe to this service, which now allows them to include food scraps along with yard debris for every other week collection. Putting food scraps into the organics cart instead of the garbage cart is voluntary and up to the customer.

Concerns have been reported over storing food waste in the green cart may lead to issues of odor, potential pests, and fly/insect infestation, especially during warm summer months. Education on how to layer yard debris with food waste and keep the lids secured can address these concerns to increase the participation of the public.

In addition to residential services, Vancouver currently has a commercial food collection program. Participation has been slow to gain traction. The county, in partnership with Vancouver, could evaluate barriers to participation in Vancouver's commercial collection program. This could look at pricing, frequency of collection, and education about the program to food waste producing businesses such as restaurants, hotels, hospitals, and schools.

10

TRANSFER AND DISPOSAL

10.1 Introduction

Transfer stations are central collection facilities where solid waste is unloaded from collection vehicles or private vehicles and reloaded into larger vehicles for shipment to a landfill or other processing facility. From the transfer stations, materials may be taken to a municipal solid waste landfill, material recovery facility (MRF), or compost facility. A MRF is a collection location that separates and prepares single-stream recycling materials to be sold to end buyers. A MRF also allows the opportunity for separation of items not collected curbside. At the end of the waste stream, municipal solid waste that cannot be recycled, repurposed, or further utilized in the current system is transported to the landfill as its final destination.

In Clark County, municipal solid waste is directed to privately owned facilities through contractual agreements between the haulers and municipalities or through interlocal agreements between the county and municipalities. Municipal solid waste collected by the contracted hauler is delivered to county designated transfer facilities operated by Columbia Resource Company (CRC) under a contract managed by Clark County. Waste Connections provides the majority of municipal solid waste collection services within the county either through a contract or a franchise granted by the WUTC. The county contract with Waste Connections requires the company to deliver municipal solid waste collection under the WUTC franchise or through a contract to the designated county transfer system.

Currently, the waste in Clark County is delivered to and processed at the following three facilities prior to being sent to landfill:

- Central Transfer and Recycling (CTR), located at 11034 NE 117th Ave., Vancouver.
- Washougal Transfer Station (WTS), located at 4020 Grant St., Washougal
- West Vancouver MRF (West Van), located at 6601 NW Old Lower River Road

This chapter outlines the Clark County infrastructure, facilities, and operations for the sorting, transporting, and management of the final stages of the solid waste system.

10.2 Conditions assessment

Flow control

Solid waste flow control is the legal provision that allows local government to designate the places where municipal solid waste is taken for processing, treatment, or disposal. Two significant flow control legal decisions helped shape the understanding and implementation of these rules today. In 1994, the US Supreme Court ruled that state or local laws that direct where waste should be processed or disposed of violates the “dormant” commerce clause and discriminated against other states in interstate commerce. This rule stated that a municipality could not force a private waste hauler to dispose of waste at a disposal facility of the municipality’s choosing, which essentially made flow control unconstitutional.

Following that decision, in 2007 the US Supreme Court ruled in United Haulers Association Inc. v. Oneida-Herkimer Solid Waste Management Authority that local governments are permitted to engage in flow control to government owned disposal facilities or government contracts in specific circumstances. The court concluded that flow control laws that favor government owned disposal facilities do not discriminate against interstate commerce and are reviewed under a more lenient balancing test. The court’s decision narrows the impact of the court’s Carbone decision in 1994.

Transportation and disposal contracts

In April 1990, the county and the City of Vancouver entered a long-term contract with CRC, a wholly owned subsidiary of Waste Connections, with services that began in January 1992. This contract has been amended eight times (1992, 1996, 1998, 1999, 2000, 2019, 2021, 2022) with the current contract running through Dec. 31, 2027.

The contract outlines:

- The operation of three or more privately owned transfer stations in Clark County.
- Annual diversion of a minimum of 10% of the incoming waste stream from disposal.
- Transport and disposal criteria of non-recycled and non-hazardous waste from West Van and CTR (primarily by containers transported on barges) to the Finley Buttes Landfill in Morrow County, OR.
- The processing and marketing of recyclable materials from the county/city curbside collection programs.
- Public drop-off facilities provided for source separated recyclable materials.
- Household hazardous waste (HHW) drop-off facilities operated at each transfer station.

- Contracted solid waste facilities are designated as essential public facilities and are an integral part of Clark County's regional solid waste management system.

Some other municipal solid waste practices are known to exist in Clark County, including the following:

- Woodland area wastes are collected by Waste Control (the WUTC-certified collection company for that area) and transported to the Cowlitz County Headquarters Landfill in Castle Rock, WA.
- Some self-haul wastes generated in the eastern, northern, and southern portions of the county are transported into Skamania County, Cowlitz County, and the Portland, OR area, respectively.
- Some amount of commercially generated waste and waste from franchised and/or WUTC-certified haulers in portions of Skamania County, Cowlitz County, and the Portland-metro area is transported to Clark County transfer facilities. This waste is a minor portion of the waste stream received at these facilities.

Transfer stations

Chapter 173-350 WAC, Solid Waste Handling Standards and Clark County Code Chapter 24.12, Solid Waste Management are the primary regulations governing the design and operations of transfer stations. Per the regulations, transfer stations are to be centrally located collection points for solid waste customers, including for commercial vehicles (e.g., route trucks that serve residents and businesses, roll-off trucks, etc.) and customers that self-haul their waste. With the evolution of collection services beyond solid waste to include recyclables and organic waste, these facilities also receive source separated materials that are processed on-site or shipped to another facility for processing. A transfer station often provides other services such as drop-off of recyclables, HHW, electronic waste, and bulky items. All the materials received at a transfer station are consolidated by material type, loaded into larger transfer vehicles, and shipped offsite for processing and/or disposal.

Central Transfer and Recycling Center

Operations began at the currently located site for CTR in 1985 as the R&R Transfer Station. CRC purchased this facility in 1990 to use as one of the two transfer stations it was required to provide by contract with the county. During the second half of 1991, CRC reconstructed and expanded the site to include a new 38,000-square-foot transfer building with a hydraulic compactor unit. The old transfer building was expanded to 13,000 square feet and converted for use as a drop-off facility for recyclable materials. New entry and scale house facilities were also added. The new transfer station building began operating in January 1992. This facility is currently approved to process 1,200 tons of municipal solid waste per day.

CTR also accepts commercial waste including construction and demolition debris (C&D), source separated recyclable materials, and other miscellaneous wastes. Miscellaneous wastes such as asbestos, petroleum-contaminated soils, ash, certain sludges, and bulky wastes can be delivered to CTR with advance notice and completion of a special waste application issued by CRC.

CTR recovers both source separated and non-source separated recyclable materials. Source separated materials are delivered to a public drop site separate from the main CTR tipping floor. Non-source separated recyclable materials are recovered by CRC staff from selected loads on the tipping floor. Most tipping floor recovery occurs from drop box and self-haul loads including C&D sourced materials, not from compacted loads of mixed residential and commercial wastes. These recovered materials include corrugated cardboard, wood, metals, and other materials deemed economically recoverable. Recycled materials accumulated at CTR are either delivered directly to secondary markets or transferred to CRC's West Van facility for further processing.

Municipal solid waste delivered to CTR is either top-loaded into transfer trailers or end-loaded by hydraulic compactor units into shipping containers. Solid wastes that are top loaded are less compact and could be transported to the West Van facility for processing to divert additional recyclable materials. Solid wastes that are compacted into shipping containers are transported by truck directly to the barge-loading facility at Tidewater Barge Lines at the Port of Vancouver. They are then shipped upriver via barge for final transport to the Port of Morrow and to the Finley Buttes Landfill. Tidewater Barge Lines is the contracted transport company that manages all transportation segments from the transfer station to the landfill. At times of the year when river locks are being serviced, the containers are delivered the entire distance by truck.

As required by the contract, HHW is accepted from residential self-haulers in the receiving area of the recycling/HHW building on designated days each week. HHW is received, sorted, and packaged before its removal from CTR by a licensed contractor and transported directly to a state-permitted treatment, storage, and disposal facility. There is a limit of 25 gallons or 200 pounds per day per customer, except for nicotine/vaping products that are limited to 1 gallon per visit.

Other hazardous materials accidentally or illegally disposed of with regular waste are also removed from municipal solid waste by CRC personnel when seen on the tipping floor. Load check spotters, equipment operators, and other station personnel have been trained to identify and isolate unacceptable and/or unauthorized wastes for proper handling and disposal, separate from municipal solid waste.

CTR is the busiest of the three transfer stations and received 242,090 tons or 59.12% of all waste generated in the county in 2023. It also receives the most customer traffic with almost 230,796 inbound trips in 2023.

Washougal Transfer Station

WTS began operations in 2009. The facility is located on a 4.6-acre site at the Port of Camas-Washougal. Customers enter from Grant Street to a scale house complex that includes one inbound scale and one outbound scale. Each vehicle is weighed, and fees are assessed based on the total waste disposed. The site includes a 75-by-60-foot transfer station building (4,500 square feet) with a depressed tunnel for loading transfer trucks and trailers. The station operates as a lift and load, meaning the bottom of the tunnel is only 8 feet below the tipping floor. WTS is currently approved to process 300 tons of municipal solid waste per day.

This facility functions as a transfer station for municipal solid waste from self-haul and commercial customers, public recycling drop-off facility, and an HHW collection site (two days per month). WTS serves the eastern portion of Clark County, including the cities of Camas and Washougal, though some material is from Skamania County. Unlike the other transfer stations, this site operates for the public on a limited schedule but is available for use by collection vehicles on all days that collection routes operate.

WTS received 40,797 tons in 2023 representing about 10% of the county's waste. Both the trips and total tons received have increased steadily over the past several years. This has occurred even though the station is open to receive waste from self-haul customers only three days per week (Wednesday, Friday, and Saturday).

In the Regional Systems Study Phase 1 Report (Appendix I), it was noted that the WTS will need to expand soon. However, the county is currently considering the option to expand the number of days Washougal is open to receive self-haul customers, which is expected to help relieve some of the traffic issues at CTR. It may also impact the timeframe for expanding the existing WTS. Potential site improvements identified in the Phase 1 Report are discussed further in the Needs and Opportunities, Evaluation of Alternatives, and Findings and Recommendations sections of this document.

English Pit Transfer Station (Closed)

The former English Pit Transfer Station was located at 912 NE 192nd Ave. in eastern Clark County. The facility is owned by Clark County and was operated as a transfer station from 1978 to March 1989. The facility consisted of a 6,000-square-foot transfer building, a pay booth, and an administration building.

Materials recovery facility

A MRF is like a transfer station because it's a centralized location for receiving materials from various customers. However, it differs because materials are processed on-site. The type and complexity of processing methods vary across different MRFs. Materials are received at the facility, and then mechanically and manually sorted by material type (e.g., paper, plastic, metals, glass). Once sorted or separated, materials are baled or compacted and then sold to a secondary processor or mill for preparation into a finished good or a feedstock for a product or packaging.

West Vancouver Materials Recovery Center

West Van is located on a 21+ acre site off Old Lower River Road at the Port of Vancouver. The property includes a large 86,100-square-foot pre-engineered metal building that receives municipal solid waste from both self-haul customers and Waste Connections collection trucks servicing residential and commercial accounts. This facility functions as both a transfer station and a materials recovery center for residential curbside, multifamily, and commercial recycling materials and accepts source separated recyclable materials delivered by the public, including scrap metal, appliances, sheetrock, and other materials. The facility was designed to receive and transfer up to 1,200 tons of municipal solid waste per day under the current operations schedule. This is the original transfer station structure that was constructed in 1992.

West Van also houses the equipment used to process source separated recyclable materials collected through county/city curbside and multifamily collection programs as well as the commercial commingled recycling collection programs and delivered by the contracted operator. This is the only MRF operating in Clark County and was significantly updated in 2009 when the county switched to a cart-based collection system. A more detailed description of the MRF can be found in the final Regional Systems Study report (Appendix I).

In addition to recycling, organics/food waste from residential customers from the cities of Vancouver and Ridgefield and commercial generators are separated and may be reloaded within the transfer station building for delivery to permitted composting sites or transfer facilities located beyond Clark County.

In addition to these primary functions, West Van includes several other facilities necessary to provide the full range of services. This includes the following:

- Scale house complex with inbound/outbound scales
- Recycle drop-off for bulky items such as tires, appliances, and scrap metal
- HHW drop-off on specified days and a limit of 25 gallons or 200 pounds per day per customer
- Wood waste/yard debris area
- Special waste handling such as tires, appliances, and asbestos
- Waste oil and glass drop for collection trucks
- Administration office
- Maintenance building
- Employee break building

In 2023 West Van received nearly 126,573 tons or 31% of municipal solid waste generated in the county. The transfer station received 125,187 trips this same year, increasing over 30,000 trips since 2021. Further details on curbside recycling and yard debris collection programs are provided in Chapter 9: Solid waste collection. CRC also receives another 12,000 tons of commingled materials from out-of-county sources. These materials are processed at the MRF which is co-located within West Van.

Composting facilities

Commercial and industrial composting happens at large-scale composting facilities designed to handle a high volume of organic materials. These facilities may provide composting services to the residential, commercial, and institutional sectors. They can divert significant quantities of organic materials from disposal facilities.

Currently two organic waste composting facilities are permitted in Clark County. The West Van MRF is permitted to compost up to 50,000 cubic yards of organic material annually. This facility has historically composted source separated leaves. Due to a change in economic factors, the facility is not actively composting material at the facility but reserves the right to do so.

In addition to yard debris, West Van can be used as a food waste transfer site. The transfer site allows residential and commercial collection vehicles to off-load their collected material in a central location, where it is then reloaded into larger-capacity transfer trucks for delivery to the composting facility. Organics could be compacted and then hauled, like how garbage is aggregated for transporting.

Most yard debris and food waste collected at West Van is transported to the Dirt Hugger Compost Facility 94 miles east in Dallesport, WA where organic materials are used to produce a variety of high-quality organic compost products.

In addition to West Van, H&H Wood Recyclers is permitted to compost up to 30,000 cubic yards of organic material annually. Composting on site is limited to less than 10,000 cubic yards of material at any one time. This facility composts source separated leaves annually. Most yard debris collected at this facility is incorporated with dry woody waste and utilized as hog fuel and/or transported to another location for composting.

Landfills

Clark County and the cities and town within the county are committed to minimizing the amount of waste being disposed of through the implementation and maintenance of waste reduction programs as well as recycling and organics collection programs. After waste reduction, reuse, recycling, composting, and energy recovery, the remainder of Clark County's waste is landfilled.

In 1999, Waste Connections purchased CRC and the Finley Buttes Landfill in Morrow County, OR as well as an additional landfill in Wasco County, OR. Since then, CRC, Finley Buttes Landfill, and Wasco County Landfill have been wholly owned subsidiaries of Waste Connections.

Considering the disposal sites in Oregon are long distances from where materials are generated, combining significant amounts of waste at a transfer station can minimize haul times and costs for certificated/contracted haulers, self-haulers, and municipal collectors. Wastes from CTR and West Van that are not able to be further recycled or composted are pushed into a compactor for loading into shipping containers. The containers are then transferred to the Tidewater Barge Lines barge loading facility for shipment upriver for final transport to the Finley Buttes Landfill. Waste collected at the WTS is transported via truck from the transfer station to a landfill in Wasco County, OR. The barging system serves as the alternative transport system for waste from the

WTS to Finley Buttes Landfill. Both landfills are modern municipal solid waste disposal facilities permitted by the Oregon Department of Environmental Quality.

Since the municipal solid waste from all transfer stations is disposed of in Oregon, ORS 459.055 (waste reduction and recycling) and OAR 340-93-97 (landfill standards) apply to the county. ORS 459.055 requires local governments outside of Oregon that transport waste to Oregon landfills to implement waste reduction and recycling programs which must be at least as effective as Oregon programs in similar jurisdictions. The local governments must apply to the Oregon DEQ and be accepted before waste can be exported to Oregon.

Finely Buttes Landfill: Finley Buttes Landfill is located approximately 180 miles east of Clark County in Morrow County, OR, at 73221 Bombing Range Road, Boardman, OR. The facility is privately owned and operated by Waste Connections. It is the primary designated disposal site for municipal solid waste generated within Clark County. The landfill is designed, constructed, and operated to comply with all requirements of the Oregon DEQ and EPA Subtitle D municipal solid waste landfill requirements.

Finley Buttes Landfill occupies a permitted 510-acre site. The projected life of the currently permitted landfill is 180 years, which exceeds the 20 years covered by this CSWMP. Currently, the site receives around 500,000 tons of municipal solid waste each year, more than half of which is from Clark County.

Wasco County Landfill: Wasco County Landfill is located about five miles southeast of The Dalles, OR near the intersection of Interstate 84 and US Route 197. The landfill site comprises 337 acres, with 213 acres of the site permitted by the Oregon DEQ for active landfilling. The landfill operator estimates that there are approximately 35 years before reaching capacity. The landfill is privately owned and operated by Waste Connections and is the designated disposal site for municipal solid waste from the WTS and is a backup facility to the Finley Buttes Landfill.

Disposal sites in Clark County

Rufener Landfill (a.k.a. Boise Cascade Landfill, Portside Landfill, Fruit Valley Landfill): The limited purpose Rufener Landfill on Northwest Lower River Road in Vancouver was owned by Boise Cascade and received clarifier solids from the Boise Cascade papermaking plant until April 1996. Rufener Landfill has been decommissioned and placed into industrial use.

Leichner Landfill: The Leichner Landfill was the last municipal solid waste landfill that operated in Clark County; it accepted waste from 1937 through 1991 at a site located in the south-central part of the county. The site was previously owned and operated by Leichner Brothers Land Reclamation Company and was permitted to operate as a sanitary landfill and to receive municipal solid waste and some construction, demolition, and land clearing waste. Under an order from Ecology, the Leichner Landfill ceased operations on Dec. 31, 1991. Leichner Landfill was purchased by the county in 2012.

Closed and abandoned landfill sites: Closed and abandoned landfills are present throughout the state, including Clark County, and pose potential risks to human health and the environment. With lack of consistent data, Ecology has requested an inventory of all closed and abandoned landfills including any pending actions. A full list of closed and abandoned disposal sites can be found in Appendix G.

10.3 Evaluation of ownership options

Clark County is considering key contractual decisions regarding the current transfer station system and ownership structure (i.e., public ownership scenarios vs. continued private ownership and operation). These contractual decisions are framed by the current agreement for the services provided by CRC, including the processing of residential recycling materials, operation of transfer stations, and transport and disposal at an out-of-county landfill.

An amendment to the long-term contract between the county and the City of Vancouver with CRC provides the opportunity for the county to purchase all three privately owned transfer facilities for a purchase price of one dollar per transfer facility. The option for the county to purchase West Van and CTR facilities requires a notice of exercise of the purchase delivered to CRC no later than Dec. 31, 2026.

The county's option to purchase the WTS is subordinate to the City of Washougal's right to own the transfer facility. In the event the county does not exercise the purchase option within the notice period, the purchase option is scheduled to expire. These provisions related to purchasing the solid waste system have been extended as part of all amendments. Evaluation of the possibility of ownership and the different ownership models was assessed in conjunction with the Regional Solid Waste System Study. This evaluation is ongoing at the time this CSWMP is being adopted.

10.4 Existing transfer and disposal education and outreach programs

The programs outlined below are examples of educational opportunities to improve the successful diversion of waste before transferred to the landfill. For a more comprehensive list of education and outreach programs, refer to Appendix O.

Transfer station and MRF tours: Waste Connections education staff and Clark County Green programs work to connect audiences and interested residents with tours of the Waste Connections transfer station and MRF. The tours include drop-off locations and education that demonstrate how much waste is produced in the county. The tour guides facilitate community discussions and presentations about recycling and waste reduction.

Secure Your Load campaign with Ecology: Clark County is collaborating with Ecology to reduce litter created by self-hauling customers through the ***Secure Your Load for Safer Roads*** campaign. The campaign includes tools and resources for social media, advertising, and in-person education. Additionally, Ecology is providing the county with cargo nets and ratchet straps to be distributed at the transfer stations along with stickers and informational pamphlets.

10.5 Planning issues

How do we incorporate the greenhouse gas emissions inventory data into our solid waste planning?

Disposal of organics in landfills is a major source of greenhouse gas emissions. Key to fighting climate change is to stop treating organics, especially food, as waste. With the passage of E2SHB 1181 during the 2023 Washington state legislative session, Clark County is now required to add a climate change element to its comprehensive plan by June 30, 2025. The ***Ecology Climate Element Planning Guidance*** released in December of 2023 identifies the following potential climate-related impacts related to solid waste management:

- Increased solid waste and potentially hazardous waste (downed tree limbs, building rubble, roof shingles, vehicles, and appliances) and associated environmental and public-safety impacts following severe storms, flooding, and other hazards.
- Increased waste associated with population growth (including climate migration) and hazards presents opportunities for recycling materials into new products (cradle-to-cradle).
- Increased emissions of carbon dioxide, methane, and other greenhouse gases associated with the transport and disposal of waste.

Organic waste is one of the largest sources of methane production at landfills, therefore diversion of organic wastes should be a priority. Data on the impacts of climate change to our solid waste system is limited and inconsistent in methodology and what is available. This creates challenges for planning for the next 20 years. Clark County Solid Waste and Recycling will continue to monitor and stay current on legislative updates and information by participating in Washington State Association of Counties and prioritize making informed and prompt program changes as information becomes available.

What efforts can be made to address greenhouse gas emissions towards the end of the waste stream?

With the passage of HB 1181 during the 2023 Washington state legislative session, efforts are being made to ensure greenhouse gas emissions and climate change elements are incorporated into Clark County planning. Waste diversion, in particular food and other organic materials, should remain a focal point in planning. As organic waste breaks down in municipal solid waste landfills, methane gas is created.

Methane gas collection

Most of Clark County's waste is sent to Finley Buttes Landfill which harvests landfill gas emissions as a renewable energy source for electricity and heat. The methane gas produced at the Finley Buttes Landfill is harvested through a perforated piping system of over 100 vertical and horizontal extraction wells and high-density polyethylene piping. Managed by Finley Bioenergy, the gas is routed to suitable energy recovery systems or combustion devices. The system allows for the sale of 25 million kilowatts per year to the local utility, Pacific Corp, and over 45,000 therms per month to Cascade Specialties, a local food processing plant. The system helps meet Oregon state requirements for renewable energy, and the EPA's requirements for greenhouse gas reductions, and provides the plant with energy savings. It's a constant source of power that is running nonstop, powered by landfilled food waste and other decomposing garbage.

What considerations should be made to handle the anticipated growing population?

Over the past 10 years, the population in Clark County grew 18.1% for an average of 1.8% per year. In 2021 the county generated almost 502,000 tons of material of which 419,492 tons were transported and disposed of in landfills. Assuming the population continues to grow at a rate consistent with the past 10 years, waste projections suggest that by 2040 the amount of waste disposed of in the landfill could approach 570,000 tons per year, an increase of 37%. Such a significant expected increase in the amount of municipal solid waste to be disposed of creates an opportunity for consideration of alternative technologies to handle tons that would otherwise be landfilled.

Since the current transfer stations were developed in the early 1990s and the addition of the Washougal facility in 2009, new services and programs for managing waste and recyclables have been implemented, but facilities have not been expanded. There have been recent improvements to the MRF processing equipment at West Van to utilize more efficient technology, however, more needs to be done to meet the need of the growing population.

Capacity

The existing system of the three transfer stations can be modified or upgraded, as needed and as possible, to maintain or improve existing levels of service. The existing contract with CRC provides the option to determine if a fourth transfer station is needed. If a fourth transfer station is to be developed, the contract provides for the option to allow CRC to site, construct and operate this station for the county.

During the Regional Solid Waste System Study (Appendix I), it was noted that CTR receives about 60% of the waste generated in Clark County while the area it serves is expected to receive the largest population growth over the next 20 years. Recognizing the burden this will put on the existing transfer station system, recommendations were provided which include siting a fourth transfer station in northern Clark County. The ***preliminary siting report*** outlines recommendations and includes the steps to site a new transfer station. Clark County will continue to evaluate options and anticipates further studies including a feasibility study and comparative analysis prior to the next plan update. The siting guidelines for solid waste handling facilities are provided in Appendix H.

Increased traffic and congestion concerns

With increasing population has come increased tonnage and vehicle traffic into each of the three facilities. These trends will continue, particularly with the expected growth in the northern areas of the county, much of which is currently serviced by CTR. Self-haul customer trips have increased significantly over the years, resulting in ongoing challenges with vehicle backups at the facilities. CTR has significant challenges regarding ingress, egress, and on-site traffic management. The number of vehicles delivering waste has increased by 24% in just the past six years. This is discussed further in the Regional Systems Study Report (Appendix I). The Washington Department of Transportation also plans in the next few years to place a traffic barrier on Northeast 117th Avenue. This is expected to prevent a left turn into the facility (traveling north on 117th Avenue) and a left turn out of the facility.

An examination of how policies and/or collection services could potentially reduce traffic at the transfer stations, primarily at CTR, was included as part of the Regional Systems Study Report (Appendix I). Options include strategies to modify collection services through universal services and collection events, modify transfer station rates, and revise hours and days of operations. Note that for rate increases, existing interlocal agreements with the cities and town require any rate increase that may result from the implementation of the recommended alternative to be approved by the county only after notice to, and consultation with, the affected cities and town.

What plans exist to improve the current conditions of the transfer stations and MRF?

The age of the facilities and the increased need for expanded customer services for recycling and HHW has also created significant opportunities for facility improvements and expansion. In 2023, a contract was established with Parametrix, Inc. to conduct triennial comprehensive inspections of all three transfer stations and related equipment as well as a review of the maintenance records and plans. Through these inspections, key areas of concern will be identified, and monthly inspection checklists will be created. Clark County Solid Wastes and Recycling staff will then be equipped with inspection checklists and conduct monthly inspections to ensure conditions identified as poor are being addressed and ensure fair and good rated items do not show signs of worsening. The first triennial inspection was completed in 2023. The initiation of the monthly inspection is pending contract negotiations at the time of this plan revision.

11

FUNDING AND FINANCING

11.1 Introduction

Clark County's solid waste system involves a combination of public and private companies and agencies. Columbia Resource Company (CRC), a private company, owns and operates the county's solid waste transfer and disposal facilities, and CRC's parent company, Waste Connections of Washington (Waste Connections), runs many of the collection operations in the county. Clark County is reviewing future ownership options which are included in the Regional Solid Waste System Study (Appendix I). Clark County's role is to plan and manage the regional system, including implementing programs for waste prevention, recycling, organics, toxicity reduction, and management of HHW following state statutes and the responsibility to ensure the necessary infrastructure is available to provide these services. The county also oversees post-closure and cleanup activities at former disposal sites. The six cities and one town have various roles, related primarily to waste collection within their boundaries.

11.2 Funding and finance

In Clark County, as well as other areas of the state, solid waste funding has often supported local recycling programs, litter abatement, pollution prevention programs, resource conservation, sustainability efforts, and related environmental awareness efforts. As noted in previous chapters, many of these programs and efforts are required by Washington law, while others are required by Oregon law, which also applies because most of the county's solid waste is disposed of in Oregon. This chapter describes funding and financing mechanisms supporting solid waste management programs in the county. It does not attempt to describe the finances of the private companies involved in the regional solid waste system.

Legislation

The following are Washington and Oregon statutes that apply to the county's solid waste management system. For a comprehensive list of solid waste regulations, refer to Appendix F.

Rates — Counties

Under RCW 36.58.040, counties have full jurisdiction to construct, purchase, or contract for the development of solid waste handling systems or facilities, and to establish the rates and charges. Counties may also award contracts for solid waste handling that include the collection of county fees.

Under RCW 36.58.045, counties may levy fees on the collection of solid waste in unincorporated areas of the county to fund administration and planning expenses.

Under RCW 36.58.100-150, counties may establish solid waste disposal districts, independent taxing authorities, and collect disposal fees based on the weight or volume of materials received. The district may issue general obligation bonds for capital purposes and may issue revenue bonds for other activities. The district may fund its operation through excise taxes. The disposal district may not include a city or town without the city council's consent. There are currently no disposal districts in the county.

Under RCWs 39.34 and 39.106, counties can establish intergovernmental agreements with other jurisdictions or form a joint service utility that may collect disposal fees and issue revenue bonds for capital purposes.

Under RCW 81.77.195, upon request of a county, the Washington Utilities and Transportation Commission (WUTC) may approve rates, charges, or services at a discount for low-income senior customers and low-income customers, if adopted by the county in its comprehensive solid waste management plan. Expenses and lost revenues as a result of these discounts must be included in the company's cost of service and recovered in rates to other customers. Clark County reserves the right to consider requesting this discounted rate in the future.

Rates — Cities

Under RCW 35.21.130, cities may require property owners and occupants to use the solid waste collection and disposal system (including recycling systems) and may set rates.

Under RCW 35.21.152, cities have full jurisdiction to construct, purchase, or contract for the development of solid waste handling systems or facilities, and to establish the rates and charges.

Rates — State

Under RCW 81.77.030, the WUTC sets collection rates for haulers who are certificated by the WUTC. WUTC is to set rate structures consistent with the state's solid waste management priorities in chapter 70A.205 RCW and consistent with minimum levels of collection and recycling services established according to county solid waste management plans.

Under RCW 81.77.080 and 110, solid waste collection companies certificated by the WUTC must pay an annual fee of 1% of their gross operating revenue to the WUTC to pay for its costs of regulating them. Table 11.2.1 outlines the annual fee Waste Connections has paid to WUTC over the last five years.

Table 11.2.1 Annual fee paid to WUTC by Waste Connections

2019	2020	2021	2022	2023
$113,580.14	$119,949.78	$129,304.26	$142,764.93	$155,350.91

Source: Reported from Waste Connections of Washington

Taxes — State

Under RCW 82.18, the state Department of Revenue collects a 3.6% tax on the collection of solid waste (Refuse Tax). These monies are directed to the state's Public Works Trust Fund established under RCW 43.155 and are not in any way allocated or reserved for solid waste projects. The Refuse Tax paid to the state by Waste Connections over the last 5 years is provided in Table 11.2.2.

Table 11.2.2: State taxes paid by Waste Connections

	2019	2020	2021	2022	2023
Collection	$2,061,096.63	$2,021,228.27	$2,206,500.55	$2,370,047.57	$2,671,716.63
Disposal	$535,431.59	$520,990.07	$597,940.75	$621,430.61	$646,017.40
Total taxes paid	**$2,596,528.22**	**$2,542,218.34**	**$2,804,441.30**	**$2,991,478.18**	**$3,317,734.03**

Source: Reported from Waste Connections of Washington

Taxes — State solid waste facility permit fees

RCW 7A.205.125 grants Clark County Public Health the authority to collect permit fees on solid waste facility permits.

RCW 82.21.030 imposes a tax ("Pollution Tax") on petroleum products, pesticides, and certain chemicals. RCW 70A.305, the Hazardous Waste Cleanup - Model Toxics Control Act, directs a portion of the revenues from this tax into the Local Toxics Control Account. Model Toxics Control Act directs the funds to be allocated consistent with state priorities including those in chapter 70A.205 RCW the Waste Not Washington Act. The Local Toxics Control Account is to be used for grants to local governments for remedial actions, solid and hazardous waste planning, and plan implementation. In recent years, the legislature has on occasion directed that Local Toxics Control Account funds be used for certain other unrelated purposes, potentially reducing or eliminating the funds available from this source for Local Solid Waste Financial Assistance (LSFWA) grants to local governments.

Clark County Solid Waste Fund

The Clark County Solid Waste Fund is an enterprise fund: all solid waste revenues remain in the fund. The revenue sources for the county Solid Waste Fund include county administrative fees paid by the contractor under the disposal and collection contracts; state grants; a share of the revenue from sales of recyclable materials; interest income; and sponsorships and partnerships with businesses and organizations in the community. The Solid Waste Fund Policy identifies that the fund is to be used for regional waste reduction, recycling programs, and other related programs.

Clark County Public Health

Table 11.2.3: Solid Waste Fund (4014) | Statement of Revenue & Expenditures

Beginning Fund Balance	4,782,708.51	5,366,975.10	6,209,878.48	6,740,574.35	7,496,904.75
REVENUE					
Source	**2020**	**2021**	**2022**	**2023**	**2024 Budget**
Grant Revenue	$235,809.62	$234,893.70	$542,092.14	$639,327.48	$502,500
Solid Waste Fees	$2,601,845.52	$2,776,866.97	$2,548,312.45	$2,892,333.99	$2,944,979
From Other Funds	$51,261.59	$50,156.29	$37,857.33	$58,745.43	$54,000
Investment Interest	$98,592.24	($19,508.01)	($125,465.35)	$300,616.47	$44,200
Miscellaneous	$14,608.62	$4,564.57	$2,731.57	$3,973.23	-
TOTAL REVENUE	**$3,002,117.59**	**$3,046,973.52**	**$3,005,528.14**	**$3,894,996.60**	**$3,545,679**
EXPENDITURES					
Source	**2020**	**2021**	**2022**	**2023**	**2024 Budget**
Personnel	$1,141,833.37	$764,252.57	$1,027,778.22	$1,239,253.60	$1,608,142
Professional Services	$513,688.88	$593,009.87	$607,641.65	$1,034,985.60	$951,614
Operating Costs	$180,929.25	$219,101.56	$146,317.13	$283,608.84	$285,677
Internal Services (Indirects)	$431,399.50	$477,706.14	$543,095.27	$430,818.16	$550,246
Transfers to other Funds	$150,000.00	$150,000.00	$150,000.00	$150,000.00	$150,000
TOTAL EXPENDITURES	**$2,417,851**	**$2,204,070.14**	**$2,474,832.27**	**$3,138,666.20**	**$3,545,679**
NET	**$584,266.59**	**$842,903.38**	**$530,695.87**	**$756,330.40**	**-**
Ending Fund Balance	**$5,366,975.10**	**$6,209,878.48**	**$6,740,574.35**	**$7,496,904.75**	

Disposal contract administrative fees

Users of the transfer stations pay a per ton tipping fee to dispose of waste. Beginning in 1999 (when Waste Connections purchased CRC and assumed its contract), the county moved from a per ton tip fee surcharge to a monthly administrative fee paid by the transfer station owner/operator to the county to generate revenue for regional solid waste programs. This funding structure is in place until the contract for Solid Waste Recycling, Transfer, Transport, and Out-of-County Disposal (disposal contract) expires.

Upon execution of the 2006 contract extension and the completion of the third transfer facility, the administrative fee was increased. In addition, the disposal contractor now covers the cost for disposal of HHW received at the three county contracted transfer stations.

The disposal contract includes provisions for Consumer Price Index-based adjustments to the administrative fee. The county will receive a per ton increase on incremental tons if the transfer stations receive more than a specified number of tons each year. Also, host fees are now being paid to the City of Vancouver for West Van and to the City of Washougal for WTS.

Grants

Local Solid Waste Financial Assistance

Clark County, cities, and town may apply for grants from Ecology's Local Solid Waste Financial Assistance (LSFWA) grants program to partially fund mandates from the state for solid waste management activities. The LSFWA grant program is funded by the state's Local Toxics Control Account (see Legislation, above). Grant funded programs must comply with the CSWMP. A 25% local match is required, and activities and expenditures must be approved by Ecology staff. The LSFWA grants are usually offered by Ecology on a biennial cycle.

WAC 173-312-060(4) indicates that in applying for the allocated LSFWA funds noted above, there must be agreement among the county (the designated lead implementation agency), the local health department, and any other grant eligible entities (all cities and towns covered by the plan) on the implementation assistance funding requests for those waste reduction and recycling projects that have been included in the most recently approved and adopted plan and selected for inclusion in the regular or off-cycle LSFWA funding. As noted in WAC 173-312- 080(3), the submittal of an application that has been purposefully coordinated by regional partners makes the application eligible for a 10% incentive. However, if an application is submitted without meeting the coordination and agreement tests, then Ecology may reduce the amount of the award by 10%. Having regional partners sign off on these grant applications before the submission is therefore a proactive safeguard in the process that would protect about $60,000 per year in regional grant funding.

Litter cleanup

Clark County, the cities, and town may also receive Community Litter Cleanup Program grants which are funded by the Waste Reduction, Recycling, and Model Litter Fund (see Legislation, above). These small grants help to pay for litter and illegal dump cleanup programs in the region.

Additionally, the Ecology Ramp Litter Cleanup Program (RLCP) grant is a competitive grant program that provides funding to local governments for litter cleanup of state highway ramps. Clark County recognizes the value and importance of this work and will continue to look into ways to support litter cleanup efforts including future grant applications.

RCW 70A.200, the Waste Reduction, Recycling, and Model Litter Control Act, authorizes Ecology to promote and stimulate recycling, encourage litter abatement, and provide employment in litter cleanup and related activities for the state's youth. Funding generated from a tax ("Litter Tax") on products such as fast-food containers support these activities and a grant program for litter cleanup in and by local communities.

Other sources

Other grants from public and private sources may occasionally become available. In the past, grants from other sources have been used to purchase street banners, survey recycling setouts, remove hazardous materials from school science labs, and purchase event recycling containers. These other grants are utilized when available but are not relied upon to fund core program services.

Recycling and yard debris collection contracts and administrative fees

The county assesses a recycling and yard waste contract administrative fee on recycling and/or yard waste collection service. The fees are collected monthly by the recycling and yard waste collection contractors as part of the collection rate and are submitted to the county. These fees cover the county's costs of administering the contracts.

Interest

The Solid Waste Fund is an enterprise fund. Interest is earned in this fund and these earnings remain with the fund. During the past few years, the amount of interest earned by the fund has not been a material amount.

Sale of recyclable materials (commodities)

Under contract agreements with CRC, the recyclable materials received through the county and the City of Vancouver single-family and multifamily curbside recycling collection programs are marketed. A portion of the revenue generated by marketing the recyclable materials is forwarded to the county and City of Vancouver, based on the number of tons collected in each jurisdiction and the value of the materials that are marketed.

11.3 Existing conditions

Leichner Landfill Financial Assurance Reserve

Clark County has a continuing financial responsibility for monitoring and maintaining the closed Leichner Landfill. Through various agreements with the county, City of Vancouver, Leichner Landfill, and Ecology, the county manages and administers the financial affairs associated with the closure and post-closure cost of the Leichner Landfill. Maintenance activities are performed by the county and private consultants approved by the county. The funding comes from monies contributed by ratepayers on the disposal fees when the landfill was in operation and interest that is earned on the fund balance. Sufficient funds are provided in the Financial Assurance Reserve Fund to support these activities through the 25-year post-closure care term.

City revenues and expenditures

Vancouver City Council sets collection rates for garbage, residential recycling, and yard debris within the city boundaries. The rate formulas include collection costs, disposal fees, and city fees, as well as a utility tax, which the garbage collection contractor pays monthly. Recycling collection is funded through customer fees plus a portion of revenues received from the sale of recyclable materials.

The Vancouver city fee is used for the Solid Waste Services Program, which provides for staff, contract management, regulatory and enforcement activities, solid waste and recycling education, public information, neighborhood cleanup programs, leaf collection, the neighborhood recycling education program, and solid waste program administration. Vancouver's Solid Waste Utility Tax supports Vancouver's general fund programs including Public Safety.

Camas is the only Clark County city that operates its own residential garbage collection service and receives user fees for the service. Both Camas and Washougal handle solid waste billing, and in both cities, the solid waste fund is an enterprise fund.

The general funds for Battle Ground, Camas, Ridgefield, and Washougal all receive revenues from their respective taxes or franchise fees on garbage collection. Yacolt and La Center have no solid waste revenues.

Public Health Solid Waste revenues and expenditures

Clark County Public Health receives annual permit fees from permitted facilities in Clark County, including the three county contracted transfer stations. These fees fund inspections, permit request reviews and related activities. CCPH also receives Local Solid Waste Financial Assistance (LSFWA) funds from Ecology and a transfer from the Clark County Solid Waste Fund for solid waste enforcement activities.

WUTC franchise fee and garbage collection rate

The WUTC collects a franchise fee which is included in garbage collection rates in unincorporated Clark County and the cities and town with WUTC haulers. The franchise fee revenues help support WUTC administration, including a customer service telephone line, rate review, and occasional enforcement activities related to non-licensed garbage hauling.

State agency solid waste revenues and expenditures

The Washington Department of Revenue collects tax from residents and businesses throughout Clark County on garbage disposal. Revenue from this tax goes to the state's Public Works Trust Fund, which makes loans to fund capital projects such as roads, bridges, and sewer systems. The garbage tax is not a source of funding for Clark County's programs.

11.4 Capital needs and financing plan

As described in the sections above, the three system transfer facilities currently receive most of the solid waste generated in the county. CTR and West Van, the two largest transfer stations, were designed and constructed in the early 1990s. However, since 2010 the amount of waste generated in the county has increased from 203,000 tons per year (TPY) to over 400,000 TPY or more than 100%. These facilities are now receiving a significantly higher volume of waste and even more customer traffic than they were designed to manage. And, other than the construction of a third transfer station in the City of Washougal in 2009, there have been no significant investments in the transfer station system.

As reported in Regional Systems Study (Appendix I), each of the three stations has deficiencies in efficiently managing the current amount of waste and traffic. Each facility has a limited number of stalls for customers to unload, insufficient tip floor space to handle surges in waste quantities, and limitations to load out materials within operating hours. Transfer stations can extend operating hours to remove materials from the tip floors but must have additional trailers and containers available on-site for this purpose. In summary, these facilities were not designed to manage the current amount of waste and customer traffic.

Population projections from the Office of Financial Management estimate the county will have approximately 720,000 people by 2040. This represents an increase of 217,000 from the 2020 Census numbers and is expected to increase the total waste generated from 407,000 TPY in 2021 to 571,000 tons in 2040, a 30% increase. The preliminary assessment of the facility needs as reported in Phase 1 of the Regional Systems Study (Appendix I) indicates that improvements and expansion of transfer

station facilities will cost between $30 million and $50 million or more. This does not include capital investment in a new MRF that is expected to be privately financed. In Phase 2 of the study an updated cost estimate included a six-year Capital Improvement Plan and conceptual plans illustrating a phased development plan for expanding the transfer station system for each service area.

A key element of the future facilities plan is the need to expand capacity for serving the north/central part of the county. The ***Comprehensive Clark County Growth Management Plan*** shows the largest percentage of growth over the next 20 years will occur in this area currently served by CTR. The range of possibilities is to expand the existing CTR facility onto an adjacent parcel or possibly site a new transfer station. A feasibility study to determine if a fourth transfer station is needed in the northern part of the county, combined with an evaluation of improvements to CTR, will provide and identify next steps. Planning for any improvements to the system (either a fourth transfer station or improvements to CTR) will be during the next five years.

Funding options for any capital improvements or acquisitions will be evaluated with any decision to move forward on a project. Revenues generated from current rates are available to fund capital improvements. The county will continue to evaluate funding options that may include:

- Committing revenue from the rates to pay for improvements.
- Relying on private capital from the contractor that will be paid by rates.
- Issuing revenue bonds if a decision is for the facilities to be publicly owned.

Existing interlocal agreements with the cities and town require any rate increase to be approved by the county only after notice to and consultation with the affected cities and town. This includes any increase that may result from planned capital improvements to the system. Tipping fees and/or transaction fee increases would also be reviewed by the WUTC as these would be pass-through rates on collection services. Specific information will be available for review when alternatives have been reviewed, a decision as to the direction for capital improvements is made, and cost estimates of the project are established. Also, as discussed in Regional Systems Study (Appendix I), the county and the cities and town are evaluating options for public ownership of the transfer station system.

The MRF at West Van processes all the recyclables generated in the county. As reported in the Phase 1 Regional Systems Study, the MRF processes 200 tons per day over two shifts with older, less efficient equipment. CRC has made some equipment improvements to help reduce labor costs and produce cleaner materials to meet market demand. However, the long-term plan is to relocate the MRF and install modern equipment within the next five years.

12

IMPLEMENTATION SCHEDULE

12.1 Introduction

Chapter 70A.205 RCW defines the requirement for a clearly defined implementation schedule for programs and actions outlined in the CSWMP with consideration given to the system needs for the next 20 years. This chapter lists recommendations noted in previous chapters. The action items identified are in line with the goals and objectives outlined in Chapter 1: Background and administration.

12.2 Emerging issues

It is anticipated that the programs will generally be able to stay on the course established by this CSWMP for the next 20 years. As we implement this CSWMP, issues may arise that could directly impact our local solid and hazardous waste management programs. These include the introduction of new state, federal, and international government regulations and policies, advancements in technology, and changes in product use and design. Consequently, we may need to adjust the recommendations in this CSWMP or add new action items to our implementation strategy to effectively address them before our CSWMP is updated again. When these issues arise, the CSWMP may need to be amended or revised to address them using the process defined in 1.11 Process of updating the plan and will be referenced in our next plan update.

12.3 Implementation schedule

The following pages provide details on the action items, responsible agencies, estimated cost, and timeline.

Table 12.3.1 Summary of recommendations/actions, implementation schedule and project costs

Recommendations/actions	2025	2026	2027	2028	2029	Future
Administration						
Coordinate with the Regional Solid Waste Systems Steering Committee (RSWSSC) to revise bylaws and interlocal agreements related to the potential public ownership of the transfer stations and other regional solid waste issues.	X					
Work with Portland Metro to advance proposals that would mutually benefit both regions; provide for a reciprocal exchange of technical assistance and input for areas of mutual concern; enhance communication; and when appropriate use joint contracts.	X	X	X	X	X	X
The county and cities should update their ordinances to regulate the on-site burial of solid waste, including residential, commercial, industrial, and agricultural waste.						X
Planning area						
Continue to evaluate future solid waste facility ownership and administration. • The county will work with the RSWSSC and SWAC to present the information needed to develop a consensus on whether the transfer station system should be publicly owned.	X					
The county and cities should decide on public ownership of the transfer stations.	X					
Evaluate future solid waste facility ownership and administration including engaging stakeholders in the development of ownership strategies.	X					
The county will maintain work with the RSWSSC and SWAC to present the information needed to develop a consensus on whether the transfer station system should be publicly owned.	X					
Enforcement						
Adopt an ordinance expanding enforcement provisions for unsecured loads of transported waste through the Clark County Sheriff's Office.						X
Waste reduction						
Promote and support the four core programs: Green Schools, Green Business, Green Neighbors, and Composter Recycler.	X	X	X	X	X	X
Increase education and outreach accessibility for diverse populations.	X	X	X	X	X	X
Provide waste reduction education and assistance to businesses and schools	X	X	X	X	X	X
Promote toxics waste reduction through green cleaning and natural gardening workshops, online and printed resources.	X	X	X	X	X	X

Recommendations/actions	2025	2026	2027	2028	2029	Future
Recycling						
Continue to promote the RecycleRight App.	X					
Continue to promote a satellite battery disposal program and recruit additional drop-off locations.	X					
Provide education to residents on proper battery recycling curbside and at drop-off locations	X	X				
Provide targeted education and outreach programs with an emphasis on waste prevention and recycling contamination reduction through the Green Neighbors, Green Schools, Green Business, and Composter Recycler programs.	X	X	X	X	X	
Translation and transcreation of educational materials and campaigns to ensure recycling information is clearly understood by all audiences.	X	X	X	X	X	X
Develop and distribute single-family and multifamily content about current top contaminants for use by the county and regional partners. (e.g. tanglers, batteries, clamshells)	X	X	X	X	X	X
Conduct annual residual study analysis to monitor waste diversion and effectiveness of sorting equipment.	X	X	X	X	X	X
Conduct a comprehensive waste characterization study.	X		X		X	
Promote standardization of designated recyclable list.	X					
Organics						
Reduce food waste at schools through approaches such as share tables, flexible and right-size food ordering.	X	X	X	X	X	X
Provide targeted education and outreach programs with an emphasis on food waste reduction and composting through the Green Neighbors, Green Schools, Green Business, and Composter Recycler programs.	X	X	X	X	X	X
Provide education and resources to expand community hub composting.	X	X	X	X	X	X
Provide education and resources for backyard composting efforts.	X	X	X	X	X	X
Provide technical assistance, waste audits, and incentives for businesses to prevent food waste, compost, and increase food donations.	X	X	X	X	X	X
Research current practices for prevention, donation and diversion of food waste.	X	X	X	X	X	X
Reduce food waste at restaurants and foodservice businesses through waste measurement and tracking and planning.	X	X	X	X	X	X
Issue RFP to expand county curbside yard debris to include food waste (organics) in unincorporated areas, Battle Ground, La Center, Yacolt						X

Recommendations/actions	2025	2026	2027	2028	2029	Future
Organics continued						
Expand local food waste processing infrastructure including more capacity and/or efficiency at existing facilities						X
Conduct outreach and education related to the value of compost, curbside organics recycling collection; Launch county-wide campaign with expansion of program	X	X	X	X	X	X
Research composting opportunities to transport food waste to farms for composting alongside agricultural waste.						X
Moderate risk waste						
Implement campaigns for PaintCare and medication take-back programs						
Assess the feasibility of collecting SQG dangerous waste at HHW facilities and implement collections if warranted						X
Evaluate accessibility and participation at HHW facilities						X
Expand days and hours of operation at HHW facilities						X
Miscellaneous waste						
Review construction and demolition (C&D) technical assistance through education and resources						X
Update Green Business certification requirements to align with new statewide initiatives and Pollution Prevention Assistance Program						X
Research C&D waste management and recommend actions						X
Review C&D technical assistance through education and resources						X
Publish a new C&D recycling toolkit identifying regional recycling options for C&D wastes						X
Research opportunities for C&D facility in Clark County.						X
Further evaluation can be done by focusing on a more detailed analysis of the following: • Deconstruction promotion and incentives • C&D waste prevention and reuse methods • C&D recycling markets • Incentives and policy solutions Evaluation could lead to targeted waste management efforts with wider environmental benefits like reducing greenhouse gas emissions and other pollution common in the industry. The research and resulting work could be designed to align with local economic and climate goals.						X

Recommendations/actions	2025	2026	2027	2028	2029	Future
Solid waste collection						
Adopt universal collection in urban areas						X
Bundle pricing in urban areas, non-WUTC and city contracts for garbage, recycling, and organics						X
Pilot special collection events in communities						X
Bulky waste collection as part of garbage service						X
Work with Ecology and Northwest Product Stewardship Council (NWPSC) to promote product stewardship bills						X
Transfer and disposal						
Update the county's ordinances regarding directing waste to designated disposal sites in the county's regional solid waste management system.						X
Utilize the existing contract for garbage export to Finley Buttes Landfill located near Boardman, OR, and Wasco County Landfill located near The Dalles, OR as the primary disposal sites for Clark County waste for the duration of the current disposal contract but consider alternative disposal options when considering any changes to the agreement with CRC.						X
Assess existing recycling depot signage at the transfer stations for clarity and consistency and update as needed						X
Funding and financing solid waste infrastructure and operations						
Maintain status quo of Clark County as the designated lead agency for regional Local Solid Waste Financial Assistance (LSFWA) planning and implementation grant applications. Lead agency will provide appropriate documentation with each application confirming full partner support.	X	X	X	X	X	X
Establish and implement an ongoing process, involving the Regional Solid Waste System Steering Committee to provide regional partners with a role concerning regional program funding and expenditure decisions.	X	X	X	X	X	X
Continue existing programs with funding currently in place for regional system support, including the LSFWA grant from Ecology.	X	X	X	X	X	X
Pursue federal and state grants that are appropriate to plan goals and desired outcomes.	X	X	X	X	X	X
Evaluate funding options to ensure that funding of required solid waste, waste prevention, and recycling roles continue such as new revenue-generating authorities, and contract revisions for disposal and collection services.	X	X	X	X	X	X
Establish a capital improvement fund for improvements to the system and transfer stations using revenue generated from rates.	X					

A

APPENDIX A: Acronymns and Definitions

Acronyms	
AHW	Acutely hazardous waste
C&D	Construction and demolition waste
CCC	Clark County Code
CCPH	Clark County Public Health
CRC	Columbia Resource Company
CROP	Contamination Reduction Outreach Plan
CSWMP	Comprehensive Solid Waste Management Plan
CTR	Central Transfer and Recycling Center
DEA	Drug Enforcement Agency
DEQ	Oregon Department of Environmental Quality
DOH	Washington State Department of Health
DOT	Washington Department of Transportation
Ecology	Washington Department of Ecology
EHW	Extremely Hazardous Waste
EPA	United States Environmental Protection Agency
HHW	Household hazardous waste
ILA	Interlocal Agreement
MRF	Materials recovery facility
MRW	Moderate risk waste
MSW	Municipal solid waste
ORS	Oregon Revised Statute
PPA	Pollution Prevention Assistance Program
ppm	Parts per million
QEL	Quantity exclusion limit
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
RRP	Renovation, Repair, and Painting
RSWSSC	Regional Solid Waste System Steering Committee
SEPA	State Environmental Policy Act
SQG	Small quantity generator
State	The State of Washington
SWAC	Solid Waste Advisory Commission
SWCAA	The Southwest Washington Clean Air Agency
SWE	Solid Waste Enforcement
SWEO	Solid Waste Education and Outreach
SWO	Solid Waste Operations
TPD	Tons per day
TSCA	Toxic Substances Control Act
WAC	Washington Administrative Codes
Waste Connections	Waste Connections of Washington
West Van	West Vancouver Materials Transfer Station
WTS	Washougal Transfer Station
WUTC	Washington Utilities and Transportation Commission

Definitions

Anaerobic digestion: Involves the breaking down of organic matter using bacteria in the absence of air to produce biogas and a high nutrient residue that can be used as a soil amendment. Often allows for either fuel or energy production.

Best management practices: Best management practices are effective, practical, structural, or nonstructural methods that prevent or reduce the movement of sediment, nutrients, pesticides, and other pollutants from the land to surface or groundwater, or which otherwise protect water quality from potential adverse effects of land use activities.

Bulky wastes: Large items such as appliances, furniture, and other oversized wastes.

Central Transfer and Recycling Center (CTR): The transfer station is located at 11034 NE 117th Ave, Vancouver, WA.

Clark County Code (CCC): Codified ordinances and regulations adopted by the Clark County Council that govern how the county government works.

Clark County Public Health (CCPH): The Clark County department that provides various health-related services and has authority (delegated by the state of Washington) to enforce state solid waste rules and regulations. Clark County is a political subdivision of the state of Washington.

Climate change: Changes in the long-term trends in average weather patterns of a region, including the frequency, duration, and intensity of wind and snowstorms, cold weather and heat waves, drought, and flooding; climate change is attributed primarily to the emission of greenhouse gases, including such compounds as carbon dioxide and methane.

Collecting agency / Collection service provider: Any agency, business, or service operated by a person for the collecting of solid waste. (WAC 173-304).

Columbia Resource Company (CRC): Owner and operator of the three transfer stations in Clark County (CTR, West Van, and Washougal) and designated processor of recyclables. CRC is a wholly-owned subsidiary of Waste Connections, Inc.

Commercial solid waste: Solid waste generated by businesses. This includes waste from business activities such as construction, transportation, communications and utilities, wholesale trades, retail trades, finance, insurance, real estate, government, and others.

Commingled: All recyclable materials are separated from garbage by the generator and placed in the same container.

Compact fluorescent light: A light bulb or tube that generates light by an electric current being driven through a tube containing argon and a small amount of mercury vapor. The mercury in the CFL requires special disposal concerns.

Composted material: Organic solid waste that has been subjected to controlled aerobic degradation at a solid waste facility in compliance with the requirements of this chapter. The natural decay of organic solid waste under uncontrolled conditions does not result in composted material.

Comprehensive Solid Waste Management Plan (CSWMP): Formally referred to as "Plan" or "SWMP" in previous versions, the CSWMP is a document that identifies goals and policies for implementing, evaluating, and modifying existing and future solid waste management programs as required by Ecology (RCW 70A.205.040). The use of CSWMP was incorporated in the 2025 revision as the revision incorporates CROP and the MRW plan.

Construction and demolition waste (C&D): Recyclable and non-recyclable materials that are generated from the construction, remodeling, repair, or demolition of buildings, roads, or other structures.

Contamination Reduction and Outreach Plan (CROP): The goal of the CROP is to reduce contamination of the materials collected in Clark County's single-family, multifamily, drop box, and commercial recycling programs. The CROP intends to improve the uniformity, marketability, and environmental benefits of recyclable material streams.

County: For the purposes of this plan, "county" refers to Clark County.

Curbside recycling: The act of collecting recyclable materials by a recycling company from residential generators at the curb and brought to a material recovery facility.

Department of Transportation: The federal department concerned with transportation.

Disposal: The discharge, deposit, injection, dumping, leaking, or placing of any solid waste into or on any land or water (WAC 173-350).

Diversion rate: Includes the recycling rate along with the percentage of generated wastes that are productively utilized but not made into new products (this includes wood, yard waste, used oil, and other products that are burned for fuel and some glass, concrete, asphalt, and rubble which may be crushed and used as aggregate as well as rendering).

Diversion: Materials diverted from disposal in a landfill to a broad range of other uses including recycling, composting, energy recovery, and reuse.

Drug Enforcement Agency (DEA): The federal agency that enforces controlled substance laws and regulations in the United States.

Ecology: See Washington State Department of Ecology below.

Electronic waste (E-waste): Broken, obsolete, or worn-out electronics that can be recycled through the E-Cycle Washington program, which includes computers, monitors, laptops, tablet computers, televisions, portable DVD players, and e-readers, sometimes collectively referred to as "covered units."

Environmental Impact Statement: A document required by the National Environmental Policy Act for certain actions "significantly affecting the quality of the human environment" that describes the positive and negative effects of a proposed action.

Environmental Protection Agency (EPA): A United States agency whose mission is to protect human health and the environment.

Equity: When all people have an equal opportunity to attain their full potential. Inequity occurs when there are differences in well-being between and within communities that are systematic, patterned, unfair, and can be changed; they are not random, as they are caused by our past and current decisions, systems of power and privilege, policies, and the implementation of those policies.

Feedstock: Any organic material used in the processing or manufacturing another product.

Food rescue: Refers to the redistribution of surplus edible food to other users.

Food waste: Waste from fruits, vegetables, meats, dairy products, fish, shellfish, nuts, seeds, grains, and similar materials that results from the storage, preparation, cooking, handling, selling, or serving of food for human consumption. Includes, but is not limited to, excess, spoiled, or unusable food and includes inedible parts commonly associated with food preparation such as pits, shells, bones, and peels. Does not include dead animals not intended for human consumption or animal excrement (from RCW 70A.205.715).

Garbage: An alternative term for solid waste. "Solid waste" or "wastes" means all putrescible and no 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, and recyclable materials (from RCW 70A.205.015)

High-intensity discharge: A gas-discharge arc lamp which creates light by sending an electrical discharge between two electrodes and through a plasma, or ionized gas. These light bulbs may contain mercury.

Household hazardous waste (HHW): Any waste that exhibits any of the properties of dangerous wastes but is exempt from regulation under chapter 70A.300 RCW, Hazardous waste management, solely because the waste is generated by households. Household hazardous waste can also include other solid waste identified in the local hazardous waste management plan prepared under chapter 70A.300 RCW, Hazardous waste management (WAC 173-350).

Interlocal Agreement (ILA): An agreement between a city and the county for participation in the Clark County solid waste system.

Landfill gas: A gas generated through the decomposition of waste buried in the landfill, which consists of about 50–60%methane and about 40–50% carbon dioxide, with less than 1% oxygen, nitrogen, and other trace gases.

Landfill: A disposal facility or part of a facility at which solid waste is permanently placed in or on land including facilities that use solid waste as a component of fill (WAC 173-350).

Lead-based paint: Paint that contains lead, a toxic heavy metal. Lead-based paint was banned for residential use in 1978.

Materials recovery facility (MRF): Any facility that receives, compacts, repackages, or sorts source separated solid waste for the purpose of recycling (WAC 173-350).

Metro: A regional governmental agency, known as "Metro," that supports regional services including solid waste planning, waste reduction, and disposal. Includes Portland, several other cities, and three counties in northwest Oregon.

Mixed paper: All clean mixed wastepaper, including newspaper, colored printing and writing paper, magazines, phone books, catalogs, advertising supplements known as "junk mail," paperback books, and paperboard (non-corrugated cardboard as cereal and cracker boxes).

Model Toxics Control Act: Washington's environmental cleanup law. MTCA funds and directs the investigation, cleanup, and prevention of sites that are contaminated by hazardous substances.

Moderate risk waste (MRW): Solid waste that is limited to conditionally exempt small quantity generator waste and household hazardous waste (WAC 173-350).

Municipal solid waste (MSW): A subset of solid waste which includes unsegregated garbage, refuse, and similar solid waste material discarded from residential, commercial, institutional, and industrial sources and community activities, including residue after recyclables have been separated. (WAC 173- 350).

National Pollutant Discharge Elimination System (NPDES): A permitting system that regulates point sources of water pollution discharging to waters of the United States to improve water quality.

Non-putrescible waste: Waste materials that do not contain organic matter that is subject to rapid decomposition by fungi and bacteria.

Oregon Department of Environmental Quality (DEQ): A department of the state of Oregon, with essentially the same role as Washington's Department of Ecology.

Oregon Revised Statutes (ORS): The compilation of all permanent Oregon state laws now in force.

Organic materials management: Management of organic materials through composting, anaerobic digestion, vermiculture, black soldier fly, or similar technologies (RCW 70A.205).

Organic materials: Include, but are not limited to, manure, yard debris, food waste, food processing waste, wood waste, and garden waste (RCW 70A.205).

Organics: Any solid waste that is a biological substance of plant or animal origin capable of microbial degradation. Used locally to define the commingling of yard debris and food waste curbside collection service. Currently only applicable to certain areas.

Parts per million (ppm): A measurement of the mass of a chemical or contaminate per unit volume of water.

Putrescible wastes: Waste that rots or decays rapidly. It can be characterized as soft organic material which usually have high moisture content, are readily degradable, generate odor and attracts vermin.

Pollution Prevention Assistance Program (PPA): An Ecology program where local government specialists may provide non-regulatory technical assistance to SQG businesses.

Polychlorinated biphenyl: A group of synthetic organic chemicals once used in industrial and commercial manufacturing, found to persistently be harmful to human health and wildlife.

Prevention: In relation to solid waste, prevention refers to avoiding the waste in the first place and represents the greatest potential for cost savings and environmental benefits for businesses, governments, and consumers.

Product stewardship or extended producer responsibility: An environmental management strategy whereby manufacturers take responsibility for minimizing a product's environmental impact throughout all stages of a product's life cycle, including end-of-life management.

Quantity exclusion limit (QEL): The quantity of dangerous waste generated in a calendar month used to distinguish when a dangerous waste is only subject to the small quantity generator provisions, the medium quantity generator provisions, or when a dangerous waste is subject to the large quantity generator provisions.

Recovery rate: The percent of total solid waste generated that is recovered from the municipal solid waste stream. Includes both recycled material and material burned for energy recovery.

Recyclable material: Any material that has been recovered or diverted from the non-hazardous solid waste stream for purpose of reuse, recycling, or reclamation, and a substantial portion of which is consistently used in the manufacture of products, which may otherwise be produced using raw or virgin materials.

Recycling: Transforming or remanufacturing waste materials into usable or marketable materials for use other than landfill disposal or incineration (RCW 70A.205).

Recycling rate: The percentage of all waste generated by residents and businesses that are recovered and made into new products.

Refuse: An alternative term for solid waste.

Renovation, Repair, and Painting (RRP): An EPA program rule requiring contractors, construction companies, painters, and other subcontractors to be RRP certified by the EPA. The certification teaches best practices for mitigating exposure and pollution from lead-based paint.

Residence: The regular dwelling place of an individual or individuals (RCW 70A.205).

Resource Conservation and Recovery Act (RCRA): Federal law establishing the national hazardous waste management program, replacing earlier solid waste acts. RCRA sets hazardous waste management standards that states must meet or exceed.

Reuse: The return of a commodity into the economic stream for use in the same kind of application as before without a change to its identity.

Revised Code of Washington (RCW): The compilation of all permanent Washington state laws now in force.

Self-hauler: Anyone who brings garbage, recyclables, and/or yard debris to transfer facilities except a commercial collection company.

Sharps: A term for sharp items needing safe disposal including hypodermic needles, syringes, scalpel blades, lancets, razor blades, and intravenous tubing with attached needles.

Small quantity generator (SQG): A dangerous waste generator whose dangerous wastes are conditionally exempt from regulation under chapter 70A.300 RCW, Hazardous waste management, solely because the waste is generated or accumulated in quantities below the threshold for regulation and meets the conditions prescribed in WAC 173-303-070 (8)(b).

Solid waste: All solid and semi-solid wastes, including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials (RCW 70A.205).

Solid Waste Advisory Commission (SWAC): A Clark County-appointed advisory group comprising 10 volunteer members that represent a broad spectrum of the community.

Solid Waste Education and Outreach Program (SWEO): Clark County program providing education and outreach to community members. Programs include Green Business, Green Neighbors, Green Schools, and Composter Recycler.

Source separation: The separation of different kinds of solid waste at the place where the waste originates (RCW 70A.205).

Southwest Clean Air Agency (SWCAA): The Southwest Clean Air Agency is responsible for enforcing federal, state, and local outdoor air quality standards and regulations in Clark, Cowlitz, Lewis, Skamania, and Wahkiakum counties of southwest Washington state.

State Environmental Policy Act (SEPA): A state policy that requires state and local agencies to consider the likely environmental consequences of a proposal before approving or denying the proposal.

Sustainability: An approach to growth and development that balances social needs and economic opportunities with the long-term preservation of a clean and healthy natural environment. This approach to action and development integrates environmental quality, social equity, fiscal responsibility, and economic vitality.

Tipping fee: The per-ton rate charged by transfer and disposal facilities for the disposal of garbage.

Toxic Substances Control Act (TSCA): Gives authorization to the EPA to regulate and screen all chemicals produced or imported into the United States to prevent unreasonable risks to health and the environment.

Transfer station: An intermediate solid waste disposal facility at which solid waste is temporarily deposited to await transportation to a final disposal site.

Washington Administrative Codes (WAC): Administratively adopted, formally codified rules which define how state agencies will implement the requirements of state laws (the "RCWs").

Washington State Department of Ecology (Ecology): A department in the state of Washington that is tasked to protect, preserve and enhance Washington's environment, and promote the wise management of air, land, and water for the benefit of current and future generations.

Washington State Department of Health (DOH): The Washington state public health agency.

Washington Utilities and Transportation Commission (WUTC): A state agency responsible for oversight of private utility and transportation services including electric, natural gas, telecommunications, water utilities, household movers, solid waste carriers, private ferries, inter-city buses, and safety issues affecting charter buses, railroads, limousines, and nonprofit transportation services.

Washougal Transfer Station (WTS): A transfer station facility serving the southeast area of Clark County, located at 4020 South Grant St. at the Port of Camas-Washougal.

Waste Connections of Washington: A publicly traded waste-handling company that provides solid waste collection, transfer, and recycling services for residents and businesses of Clark County, Washington.

Waste Control, Inc.: A publicly traded waste-handling company that, under contract with Clark County, performs a portion of waste-related services in Clark County.

Waste reduction: Reducing the amount or toxicity of waste generated or reusing materials (RCW 70A.205.015).

Waste prevention: A strategy that involves the manufacturing of products or consumer behavior in purchasing, using, or reusing products.

Wasted food: The edible portion of food waste.

West Vancouver Material Recovery Center (West Van): A transfer station and material recovery facility located at 6601 NW Old Lower River Road, Vancouver, WA.

Yard debris: Means plant material commonly created while maintaining yards and gardens, and through horticulture, gardening, landscaping, or similar activities. Yard debris includes but is not limited to grass clippings, leaves, branches, brush, weeds, flowers, roots, windfall fruit, vegetable garden debris, holiday trees, and tree pruning 4 inches or less in diameter (RCW 70A.205.015).

B

APPENDIX B: SEPA checklist and determination

Determination of NONSIGNIFICANCE
Notice Date: May 24th, 2024

PROJECT:
Clark County Comprehensive Solid Waste Management Plan (CSWMP) – 2025-2030

Please find enclosed an environmental Determination of Non Significance (DNS) issued pursuant to State Environmental Policy Act (SEPA) Rules (Chapter 197-11, Washington Administrative Code). The enclosed review comments reflect evaluation of the environmental checklist by the lead agency as required by WAS 197-11-330(1)(a)(i).

Written comments may be submitted on this determination within fifteen (15) days of its issuance, after which the DNS will be reconsidered in light of the comments received.

Please address all correspondence to:

Clark County Department of Public Works
Audrey Cronin, Environmental Permitting Manager
PO Box 9810
Vancouver, WA 98666-9810

DISTRIBUTION LIST

Federal:
US Army Corps of Engineers
US EPA
US Soil Conservation Services
Bonneville Power Administration
Federal Emergency Management Agency
US Fish & Wildlife

Regional:
Fort Vancouver Regional Library
Regional Transportation Council
Southwest Clean Air Agency
Southwest Washington Health District
Camas Public Library

Tribal:
Cowlitz Indian Tribe
Confederated Tribes & Bands of the Yakama Nation
The Confederated Tribes of Grand Ronde
Confederated Tribes of Warm Springs

State:
Washington State Department of Fish & Wildlife
Washington State Department of Ecology
Washington State Department of Natural Resources SW Washington
Washington State Department of Transportation
Washington State Department of Archaeology and Historic Preservation

County:
Clark County Fire District No. 5
Clark County Fire District No. 6
Clark County Fire District No. 9
Clark County Fire & Rescue
East County Fire & Rescue
Clark Public Utilities Electrical
Clark Public Utilities Water
Clark Regional Wastewater District
Clark County Community Development
Development Services
Fire Marshall
Clark County Conservation District
Clark County Sheriff's Office

Local:
City of Vancouver
City of Camas
City of Ridgefield
City of Woodland
City of Battle Ground
City of La Center
City of Washougal
Vancouver Parks & Recreation
Greater Vancouver Chamber of Commerce

Vancouver School District
Evergreen School District
Camas School District
Hockinson School District
Battle Ground School District
Mt. Pleasant School District
Woodland School District
Green Mountain School District
La Center School District
Ridgefield School District
Washougal School District

Port of Vancouver
Port of Camas-Washougal

Columbia River Economic Development Council
Clark County Association of Realtors
Clark County Home Builders Association
Vancouver Audubon Society
Friends of Curtin Creek (postcard only)
Properties within 500' of project (postcard only)
The Columbian
The Reflector

C-Tran
AT&T
Century Link
Clark Public Utilities – Water
Clark Public Utilities – Electric
Clark Regional Wastewater District
Xfinity - Comcast Cable Services
Northwest Natural
Pacific Power & Light

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Determination of NONSIGNIFICANCE
Notice Date: May 24th, 2024

DISTRIBUTION LIST, Continued

Neighborhood Associations:
Airport Green Neighborhood Association
Andresen/St. Johns Neighborhood Association
Arnada Neighborhood Association
Bagley Downs Neighborhood Association
Bella Vista Neighborhood Association
Bennington Neighborhood Association
Burnt Bridge Creek Neighborhood Association
Burton Evergreen Neighborhood Association
Carter Park Neighborhood Association
Cascade Highlands Neighborhood Association
Cascade Southeast Neighborhood Association
Central Park Neighborhood Association
Cimarron Neighborhood Association
Columbia Way Neighborhood Association
Concerned Citizens of Hockinson Neighborhood Association
Countryside Woods Neighborhood Association
Daybreak Neighborhood Association
Dubois Park Neighborhood Association
East Fork Frontier Neighborhood Association
East Fork Hills Rural Neighborhood Association
East Minnehaha Neighborhood Association
East Old Evergreen Hwy Neighborhood Association
Edgewood Park Neighborhood Association
Ellsworth Springs Neighborhood Association
Enterprise/Paradise Point Neighborhood Association
Esther Short Neighborhood Association
Evergreen Highlands Neighborhood Association
Fairgrounds Neighborhood Association
Fairway/164th Avenue Neighborhood Association
Father Blanchet Park Neighborhood Association
Felida Neighborhood Association
Fern Prairie Neighborhood Association
Fircrest Neighborhood Association
First Place Neighborhood Association
Fisher-Mill Plain Neighborhood Association
Fisher's Creek Neighborhood Association
Fisher's Landing East Neighborhood Association
Forest Ridge Neighborhood Association
Fourth Plain Village Neighborhood Association
Fruit Valley Neighborhood Association
Greater Brush Prairie Neighborhood Association
Green Meadows Neighborhood Association
Harney Heights Neighborhood Association
Hearthwood Neighborhood Association
Heritage Neighborhood Association
Hough Neighborhood Association
Hudson's Bay Neighborhood Association
Image Neighborhood Association
Kevanna Park Neighborhood Association
Landover-Sharmel Neighborhood Association
Lincoln Neighborhood Association
Maple Tree Neighborhood Association
Marrion Neighborhood Association
Meadow Glade Neighborhood Association
Meadow Homes Neighborhood Association
Mountain View Neighborhood Association
Northeast Hazel Dell Neighborhood Association
North Fork Lewis River Neighborhood Association
North Garrison Heights Neighborhood Association
North Hearthwood Neighborhood Association
North Image Neighborhood Association
North Salmon Creek Neighborhood Association
Northcrest Neighborhood Association
Northfield Neighborhood Association
Northwest Neighborhood Association
Northwood Neighborhood Association
Oakbrook Neighborhood Association
Ogden Neighborhood Association
Old Evergreen Hwy Neighborhood Association
Parkside Neighborhood Association
Parkway East Neighborhood Association
Pleasant Highlands Neighborhood Association
Proebstel Neighborhood Association
Ramblin' Creek/South Salmon Creek Neighborhood Association
Ridgefield Junction Neighborhood Association
Riveridge Neighborhood Association
Riverview Neighborhood Association
Road's End Neighborhood Association
Rose Village Neighborhood Association
Sherwood Neighborhood Association
Shumway Neighborhood Association
Sifton Neighborhood Association
Southcliff Neighborhood Association
Sunnyside Neighborhood Association
Truman Neighborhood Association
Vancouver Heights Neighborhood Association
VanMall Neighborhood Association
Village at Fisher's Landing Neighborhood Association
Washougal River Neighborhood Association
West Hazel Dell Neighborhood Association
West Minnehaha Neighborhood Association
Wildwood Neighborhood Association

Determination of NONSIGNIFICANCE
Notice Date: May 24th, 2024

DETERMINATION OF NON-SIGNIFICANCE

Description of Proposal: Clark County Public Health is proposing a routine update of its Comprehensive Solid Waste Management Plan (CSWMP) for years 2025 to 2030 to ensure that the plan accurately reflects the current state of the local solid waste system, including long-range handling and financing needs. The CSWMP must be reviewed every five years at a minimum and updated as needed through the amendment process. The area of jurisdiction for the CSWMP is the entirety of Clark County in the State of Washington.

Proponent: Clark County Public Health

Location of proposal, including street address, if any: There is no location associated with this proposal, as it is a non-project action.

Lead Agency: Department of Public Health, Clark County, Washington

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

The lead agency has determined that the requirements for environmental analysis, protection, and mitigation measures have been adequately addressed in the development regulations and comprehensive plan adopted under chapter 36.70A RCW, and in other applicable local, state, or federal laws or rules, as provided by RCW 43.21C.240 and WAC 197-11-158. Our agency will not require any additional mitigation measures under SEPA.

This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 15 days from the date below.

Comments must be submitted by **June 8th, 2024**

Responsible Official: Alan Melnick, MD

Position/title: Public Health Director/Clark County Health Officer

Address: Clark County Public Health
PO Box 9825
Vancouver, WA 98666

Date: 05/16/24 **Signature:** Alan Melnick

The staff contact person, telephone number, and e-mail for any questions on this review is Audrey Cronin, 360-558-0524, audrey.cronin@clark.wa.gov.

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SEPA ENVIRONMENTAL CHECKLIST FOR

CLARK COUNTY COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN FOR YEARS 2025-2030

A. Background

1. **Name of proposed project, if applicable:**

   Clark County Comprehensive Solid Waste Management Plan (CSWMP) for years 2025-2030

2. **Name of applicant:**

   Clark County Public Health, Solid Waste & Recycling Program

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

   Alan Melnick, MD
   Director/Health Officer of Clark County Public Health
   PO Box 9825
   Vancouver, WA 98666
   (564) 397-8412

4. **Date checklist prepared:**

   May 3rd, 2024

5. **Agency requesting checklist:**

   Clark County Public Health, Solid Waste & Recycling Program

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

   RCW 70A.205.075 requires that a Solid Waste Management Plan be reviewed every five years at a minimum to assess if the plan reflects the current state of the local solid waste system. The five-year review cycle begins on the first day of the six-year planning period covered by the CSWMP; for this cycle, projected to be 1/1/2025. This plan should be reviewed in 2027 to allow time for a revision, if necessary, with a goal of adopting an updated plan by 2030.

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

   Yes, as described above, the plan must be reviewed every five years and updated as needed through the amendment process.

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

   The documents listed below were prepared to support the CSWMP update. However, this is a non-project action, and activity-specific environmental documentation was not prepared as part of this plan update. Future project actions will undergo individual environmental review and permitting.

   - Regional Solid Waste System Study, Phase 1 Report – JRMA Architects Engineers (2021)
   - Regional Solid Waste System Study, Phase 2 Report - JRMA Architects Engineers (2023)

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.**

   The CSWMP may interact with a variety of other agencies' plans and programs relating to solid waste management. However, the development and administration of these plans and programs will not affect the adoption of the 2025 CSWMP update.

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

    No permits are needed for the adoption of the CSWMP update. However, the Washington State Department of Ecology, the Clark County Solid Waste Advisory Commission (SWAC), and the Clark County Council must approve the draft plan prior to its adoption.

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.)**

    This proposal involves the routine update of Clark County Public Health's CSWMP to ensure that the plan accurately reflects the current state of the local solid waste system, including long-range handling and financing needs. The area of jurisdiction for the CSWMP is the entirety of Clark County in the State of Washington.

    The plan was developed to provide the community with goals and policies for implementing, evaluating, and modifying existing and future solid waste management programs. The plan includes updated descriptions of existing conditions and programs to reflect progress and accomplishments over the previous years. It lists policies and practices reviewed by SWAC, solid waste program staff, representatives of six cities, one town, interested citizens, solid waste industry representatives, and others.

    The plan addresses critical items needed for future decision-making on implementing improvements to the solid waste system in Clark County as follows:

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- Promotes sustainable practices for governments, non-governmental organizations, businesses, and residents.
- Review pertinent regulations and other management plans.
- Guidelines for the development of programs, policies, and operating plans.
- Planning for solid waste infrastructure and operations (including facility siting criteria and process).
- Background information to support facility permitting decisions by Clark County Public Health and other state and local government agencies.
- The technical support and justification for grant applications, capital project fund requests, budget planning, and future programs.
- Serves as education and information to the public.
- Identifies and presents opportunities for collaboration with others in the region for collection and recycling services and potential ownership and operation of facilities as well as with statewide agencies.

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 CSWMP update is a non-project action that applies to the entirety of Clark County in the State of Washington.

B. Environmental Elements

1. Earth

a. **General description of the site:**

   Clark County is located in southwestern Washington, just north of and adjacent to the Columbia River and Portland, Oregon. The county's 656 square-mile area contains various topographic features, from mountainous cascade areas in the east to rolling farmland and lowlands in the west.

Circle or highlight one: Flat, rolling, hilly, steep slopes, mountainous, other:

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

The CSWMP update is a non-project action and is not affected by nor will it affect site conditions. Project actions resulting from the adoption of this plan will undergo individual environmental review.

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.**

Non-project action: question does not apply.

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

Non-project action: question does not apply.

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.**

Non-project action: question does not apply.

f. **Could erosion occur because of clearing, construction, or use? If so, generally describe.**

Non-project action: question does not apply.

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

Non-project action: question does not apply.

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

Non-project action: question does not apply.

2. Air

a. **What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.**

The CSWMP update is a non-project action and is not affected by nor will it affect air quality. Project actions resulting from the adoption of this plan will undergo individual environmental review.

No significant increase in emissions is anticipated as a result of the recommendations made in the CSWMP.

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

Non-project action: question does not apply.

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

Non-project action: question does not apply.

3. Water

a. Surface:

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.**

   The CSWMP update is a non-project action and is not affected by nor will it affect water quality. Project actions resulting from the adoption of this plan will undergo individual environmental review.

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.**

   Non-project action: question does not apply.

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.**

   Non-project action: question does not apply.

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

   Non-project action: question does not apply.

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

   Non-project action: question does not apply.

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.**

   Non-project action: question does not apply.

b. Ground:

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 a general description, purpose, and approximate quantities if known.**

   Non-project action: question does not apply.

2. **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (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.**

   Non-project action: question does not apply.

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.**

   Non-project action: question does not apply.

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

   Non-project action: question does not apply.

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

   Non-project action: question does not apply.

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

Non-project action: question does not apply.

4. Plants

The vegetation types indicated below can be found across Clark County. However, the CSWMP update is a non-project action and will not result in impacts to vegetation. Project actions resulting from the adoption of this plan will undergo individual environmental review.

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

   ☒ **deciduous tree: alder, maple, aspen, other**

   ☒ **evergreen tree: fir, cedar, pine, other**

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☒ **shrubs**

☒ **grass**

☒ **pasture**

☒ **crop or grain**

☒ **orchards, vineyards, or other permanent crops.**

☒ **wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other**

☒ **water plants: water lily, eelgrass, milfoil, other**

☒ **other types of vegetation**

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

   Non-project action: question does not apply.

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

   The following federally listed threatened or endangered plant species may be found in Clark County:

   - Golden paintbrush
   - Bradshaw's lomatium
   - Water howellia
   - Nelson's Checker-mallow
   - Willamette Daisy

   However, this is a non-project action and will not affect vegetation.

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

   Non-project action: question does not apply.

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

   Non-project action: question does not apply.

5. Animals

a. **List any birds and other animals that have been observed on or near the site or are known to be on or near the site.**

   Examples include:

   - **Birds: hawk, heron, eagle, songbirds, other:**
   - **Mammals: deer, bear, elk, beaver, other:**

- **Fish: bass, salmon, trout, herring, shellfish, other:**

  Clark County hosts a wide variety of bird and animal species. However, the CSWMP update is a non-project action and will not result in impacts to wildlife. Project actions resulting from the adoption of this plan will undergo individual environmental review.

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

The following federally listed threatened or endangered animal species can be found in Clark County:

- Gray Wolf
- Columbian White-Tailed Deer
- Northern Spotted Owl
- North American Wolverine (proposed)
- Marbled Murrelet
- Streaked Horned Lark
- Yellow-billed Cuckoo
- Oregon Spotted Frog
- Chinook Salmon
- Chum Salmon
- Steelhead
- Coho Salmon
- Pacific Eulachon
- Bull Trout

However, this is a non-project action and will not affect animal species.

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

Several migration routes intersect Clark County, such as the Columbia River corridor, which supports migration for salmon and various bird species. Other rivers in Clark County, including the East Fork Lewis River and Washougal River, support migrating salmonids. Clark County is also included within the Pacific Flyway, the major migrating corridor for birds in North America west of the continental divide.

However, this is a non-project action and will not affect wildlife migration.

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

Future project actions implemented under the Clark County CSWMP may contribute to the protection of existing wildlife and their habitats by addressing proper management and disposal methods for solid wastes in order to reduce such problems as contamination of ground and surface water. However, the adoption of the plan will not involve specific measures to preserve or enhance wildlife because it will not impact wildlife or its habitat.

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

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Non-project action: question does not apply.

6. Energy and natural resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Adoption of the CSWMP will not require the use of the above-mentioned energy sources. Future actions that result from the adoption of the CSWMP will assess energy needs in individual SEPA analyses.

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

No, the adoption of the CSWMP would not affect the potential use of solar energy.

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.

The CSWMP discusses options for alternative technologies as part of the county's solid waste system. One of these options is a future Energy from Waste Facility, which could use chemical or biological processes to convert waste into an energy source. No energy-conservation technologies are mandated by the plan but are identified and evaluated as future waste management options.

An example of an existing energy conservation feature operating under the current CSWMP is Finley Buttes Landfill in Boardman, OR, where the majority of Clark County's waste is sent. The landfill is operated by Waste Connections of Washington (WCW). The facility harvests landfill gas emissions as a renewable energy source for electricity and heat. The methane gas produced at the Finley Buttes landfill is harvested through a perforated piping system of over 100 vertical and horizontal extraction wells and high-density polyethylene piping. Managed by Finley Bioenergy, the gas is routed to suitable energy recovery systems or combustion devices. The system helps meet the EPA's requirements for greenhouse gas reductions and provides the plant with energy savings.

Additionally, household hazardous waste (HHW) processed at Clark County HHW facilities may be reused as alternative fuel sources. (see 2023 CSWMP).

7. Environmental health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur because of this proposal? If so, describe.

No. There are no environmental health hazards that could occur because of this proposal. The plan serves to reduce the occurrence of environmental health hazards by promoting best practices for solid waste management.

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

   Non-project action: question does not apply as the action is non-site specific.

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.**

   Non-project action: question does not apply as the action is non-site specific.

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.**

   Non-project action: question does not apply as the action is non-site specific.

4. **Describe special emergency services that might be required.**

   No special emergency services will be needed for this action.

5. **Proposed measures to reduce or control environmental health hazards, if any.**

   The CSWMP provides a comprehensive overview of methods to reduce and/or control environmental health hazards in Clark County.

b. Noise

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

   This non-project action will not be affected by noise.

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)?**

   This non-project action will not create or be associated with noise.

3. **Proposed measures to reduce or control noise impacts, if any:**

   Non-project action: question does not apply.

8. Land and shoreline use

a. **What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.**

   Non-project action: question does not apply as the action is non-site specific.

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 because of the proposal, if any? If resource lands have**

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not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

Non-project action: question does not apply as the action is non-site specific.

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?**

   Non-project action: question does not apply as the action is non-site specific.

c. **Describe any structures on the site.**

   Non-project action: question does not apply as the action is non-site specific.

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

   Non-project action: question does not apply as the action is non-site specific.

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

   Non-project action: question does not apply as the action is non-site specific.

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

   Non-project action: question does not apply as the action is non-site specific.

g. **If applicable, what is the current shoreline master program designation of the site?**

   Non-project action: question does not apply as the action is non-site specific.

h. **Has any part of the site been classified as a critical area by the city or county? If so, specify.**

   Non-project action: question does not apply as the action is non-site specific.

i. **Approximately how many people would reside or work in the completed project?**

   Non-project action: question does not apply as the action is non-site specific.

j. **Approximately how many people would the completed project displace?**

   Non-project action: question does not apply as the action is non-site specific.

k. **Proposed measures to avoid or reduce displacement impacts, if any.**

   Non-project action: question does not apply as the action is non-site specific.

l. **Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.**

   The CSWMP update involves coordination with a variety of local governments, regional contractors, regulatory agencies, community organizations, advisory committees, and citizens to ensure the plan is compatible with existing and projected land uses and

plans. The draft plan is reviewed by the Department of Ecology and the Clark County Council prior to adoption.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

Non-project action: question does not apply as the action is non-site specific.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None. This is a non-project action: question does not apply as the action is non-site specific.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None. This is a non-project action: question does not apply as the action is non-site specific.

c. Proposed measures to reduce or control housing impacts, if any:

None. This is a non-project action: question does not apply as the action is non-site specific.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

This is a non-project action: question does not apply as the action is non-site specific.

b. What views in the immediate vicinity would be altered or obstructed?

None. This is a non-project action: question does not apply as the action is non-site specific.

c. Proposed measures to reduce or control aesthetic impacts, if any:

The CSWMP includes recommendations for user groups to improve visual aesthetics in managing solid waste facilities.

11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None. This is a non-project action: question does not apply as the action is non-site specific.

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b. Could light or glare from the finished project be a safety hazard or interfere with views?

No. This is a non-project action: question does not apply as the action is non-site specific.

c. What existing off-site sources of light or glare may affect your proposal?

None. This is a non-project action: question does not apply as the action is non-site specific.

d. Proposed measures to reduce or control light and glare impacts, if any:

None. This is a non-project action: question does not apply as the action is non-site specific.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

Clark County has a variety of county, city, state, and federal recreational opportunities including sports facilities, neighborhood, community and regional parks, open space, and wildlife habitat areas. Some of these recreational opportunities are formally designated, while others are informally used without designation or authorization.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No. This is a non-project action: question does not apply as the action is non-site specific.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

The plan update will not impact recreational facilities or opportunities. No proposed measures have been identified.

13. Historic and cultural preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

The Cultural Resources Inventory of Clark County identifies numerous archaeological sites associated with Native American activity countywide. More than 70 historic structures, sites, objects, and vessels, as well as one historic district and one national landmark are located in Clark County. Historic preservation officials emphasize that comprehensive field investigations have not been conducted and that artifacts and historic resources are probably not confined to those identified sites.

The plan update is a non-project action that does not have the potential to affect cultural or historic resources. Any project actions that occur as a result of the CSWMP adoption will undergo individual review.

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.

No. This is a non-project action: question does not apply as the action is non-site specific.

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.

None. This is a non-project action with no potential to impact cultural or historic resources.

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.

None. This is a non-project action with no potential to impact cultural or historic resources.

14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

This is a non-project action: question does not apply as the action is non-site specific.

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?

Clark County is served by C-TRAN with fixed route and demand transit service.

c. 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).

No. The CSWMP update does not affect transportation systems.

d. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

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No. This is a non-project action: question does not apply as the action is non-site specific.

e. 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?

The adoption of the CSWMP will not generate vehicular trips, as it is a non-project action.

f. 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.

No, the adoption of the CSWMP will not affect or be affected by agricultural or forest product transportation.

g. Proposed measures to reduce or control transportation impacts, if any:

The Regional Solid Waste System Study Report included in the CSWMP appendices evaluates operational efficiencies and impacts from solid waste traffic, self-hauling, and future traffic impacts from growth within Clark County. The report identifies strategies to reduce traffic impacts at transfer stations within the county, including modifying the level of collection services, expanding universal service, and bundling regular collection services.

15. Public services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

The mission of the CSWMP is to provide programs, services, and infrastructure that empower the community to reduce, reuse, recycle, and properly dispose of waste. As the county grows, these services must expand as well to serve the residents of Clark County. The plan identifies how the demand for solid waste management services has increased and discusses how the county can best address these needs.

b. Proposed measures to reduce or control direct impacts on public services, if any.

The CSWMP addresses the following elements which may help reduce impacts on public services related to solid waste management:

- Promoting sustainable practices for governments, non-governmental organizations, businesses, and residents.
- Reviewing pertinent regulations and other management plans.
- Providing guidelines for the development of programs, policies, and operating plans.

- Planning for solid waste infrastructure and operations (including facility siting criteria and process).
- Providing background information to support facility permitting decisions by Clark County Public Health and other state and local government agencies.
- Providing technical support and justification for grant applications, capital project fund requests, budget planning, and future programs.
- Serving as education and information to the public.
- Identifying and presenting opportunities for collaboration with others in the region for collection and recycling services and potential ownership and operation of facilities as well as with statewide agencies.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:

All above utilities are available in Clark County. However, this is a non-project action and is not site-specific.

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.

Refuse services are addressed by the CSWMP. However, adoption of the CSWMP is a non-project action and will not generate construction activities that could affect utilities, nor will it require the use of utilities.

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

X Audrey Cronin

Type name of signee: Audrey Cronin

Position and agency/organization: Environmental Permitting Manager/Clark County Public Works

Date submitted: May 3rd, 2024

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D. Supplemental sheet for non-project actions

1. **How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?**

   The Clark County CSWMP will not have an adverse impact to water or air, will not increase the production, storage, or release of toxic or hazardous substances, and will not produce noise. The continued implementation of the plan will result in decreased discharges to the environment through management strategies designed to encourage the proper management and disposal of solid waste. Project actions that result from the implementation of the plan will undergo individual environmental review.

   - **Proposed measures to avoid or reduce such increases are:**
     - Promote education and outreach to support individuals, schools, organizations, and businesses in improving efforts to reduce, reuse, and recycle waste materials, properly dispose of hazardous waste, and prevent food waste.
     - Provide communities with goals and policies for evaluating and modifying existing and developing new solid waste management programs.
     - Identify opportunities and recommendations for improving construction and demolition waste management.
     - Identify outreach strategies, opportunities, and recommendations for hazardous waste management.

2. **How would the proposal be likely to affect plants, animals, fish, or marine life?**

   Implementation of the CSWMP should reduce impacts to vegetation and wildlife by reducing the frequency of illegal dumping and encouraging proper disposal of solid wastes, and through outreach and education campaigns regarding proper disposal of waste.

   - **Proposed measures to protect or conserve plants, animals, fish, or marine life are:**

   Please see response to question 1 proposed measures.

3. **How would the proposal be likely to deplete energy or natural resources?**

   The plan is not likely to deplete energy or natural resources, but should encourage the conservation of both through its recommendations for more innovative and efficient solid waste management.

   - **Proposed measures to protect or conserve energy and natural resources are:**

As discussed in section B.6, the CSWMP identifies options for alternative technologies within the county's solid waste system, including a future Energy from Waste Facility, which would use chemical or biological processes to convert waste into an energy source.

The plan also promotes waste reduction through reduction, reuse, and recycling of materials, thereby decreasing the depletion of energy and materials used in manufacturing or constructing new goods and facilities.

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?**

   Implementation of the CSWMP should not result in impacts to environmentally sensitive areas. Ongoing impacts to such areas should be lessened by proper adherence to the plan through an improvement in water quality and reduction in illegal dumping of solid and hazardous waste. Project actions that result from the implementation of the plan will undergo individual environmental review.

   - **Proposed measures to protect such resources or to avoid or reduce impacts are:**

   Please see response to question 1 proposed measures.

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?**

   Recommendations for land use are consistent with the Clark County Comprehensive Growth Management Plan and Shoreline Management Plan.

   - **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?**

   As discussed in sections B.14 and B.15, an element of the mission of the CSWMP is to provide services and infrastructure that empower the community to reduce, reuse, recycle, and properly dispose of waste. As the county grows, these public services must expand as well to serve the residents of Clark County. The plan identifies how the demand for solid waste management services has increased and discusses how the county can best address these needs. The Regional Solid Waste System Study Report included in the CSWMP appendices also evaluates operational efficiencies and impacts from solid waste traffic, self-hauling, and future traffic impacts from growth within Clark County. The report identifies strategies to reduce traffic impacts at transfer stations within the county, summarized below.

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- **Proposed measures to reduce or respond to such demand(s) are:**

The Regional Solid Waste System Study proposes modifying the level of collection services, expanding universal service, and bundling regular collection services to respond to the demand for additional waste collection services.

The CSWMP addresses the following elements which may help reduce impacts on public services related to solid waste management:

- Promoting sustainable practices for governments, non-governmental organizations, businesses, and residents.
- Reviewing pertinent regulations and other management plans.
- Providing guidelines for the development of programs, policies, and operating plans.
- Planning for solid waste infrastructure and operations (including facility siting criteria and process).
- Providing background information to support facility permitting decisions by Clark County Public Health and other state and local government agencies.
- Providing technical support and justification for grant applications, capital project fund requests, budget planning, and future programs.
- Serving as education and information to the public.
- Identifying and presenting opportunities for collaboration with others in the region for collection and recycling services and potential ownership and operation of facilities as well as with statewide agencies.

7. **Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.**

   The Clark County CSWMP conforms to all applicable local, state, and federal regulations. All future project actions that result from the implementation of this plan will undergo individual environmental review and will comply with all applicable laws and regulations.

C

APPENDIX C: Washington Utilities and Transportation Cost Assessment Questionnaire

Draft UTC Cost Assessment

Date: 6/1/2024

Lead Planning Jurisdiction: Clark County | **Contact Name:** Joelle Loescher | **Contact Phone:** 564.397.8126
Contact Email: joelle.loescher@clark.wa.gov

Plan Participants - list all jurisdictions that are signatories to the plan:
City of Battle Ground, City of Camas, City of La Center, City of Ridgefield, City of Vancouver, City of Washougal, Town of Yacolt

Base Year - last year with a full year's data	**Base Year**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Calendar or Fiscal Year	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Demographics	**Base Year**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Estimated Population	527,400	535,453	543,507	551,285	559,330	567,356
Waste Generation in tons of MSW from all sources	**Base Year**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
UTC-Regulated Haulers	256,582	260,302.51	264,076.90	267,906.01	271,790.65	275,731.61
Non-Regulated Haulers–cities that provide municipal service or contract for service	13,590	13,786.86	13,986.77	14,189.58	14,395.33	14,604.06
Self-Haul	136,173.82	138,148.34	140,151.49	142,183.69	144,245.35	146,336.91
Total Tons of MSW Disposed	406,346	412,237.71	418,215.16	424,279.28	430,431.33	436,672.58
Recycling in tons only from residential sources (including multifamily)	**Base Year**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
UTC-Regulated Haulers	-	-	-	-	-	-
Non-Regulated Haulers	32,646	33,119.76	33,600.00	34,087.20	34,581.46	35,082.89
Total Tons of Recyclables	32,646	33,120	33,600	34,087	34,581	35,083
Yard debris in tons only from residential sources (including multifamily)	**Base Year**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
UTC-Regulated Haulers	-	-	-	-	-	-
Non-Regulated Haulers	3,716	3,769.75	3,824.41	3,879.87	3,936.12	3,993.20
Total Tons of Organics	3,716	3,770	3,824	3,880	3,936	3,993
Organics (Yard debris and food waste combined) in tons only from residential sources (including multifamily)	**Base Year**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
UTC-Regulated Haulers	0	0	0	0	0	0
Non-Regulated Haulers	5,117.24	5,191.44	5,266.72	5,343.08	5,420.56	5,499.16
Total Tons of Organics	5,117.24	5,191.44	5,266.72	5,343.08	5,420.56	5,499.16
UTC-regulated haulers Waste Connections of Washington G-253	**Base Year**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
SW customers - total residential & commercial	81,526	82,708	83,907	85,124	86,358	87,611
Tons	**256,582**	**260,303**	**264,077**	**267,906**	**271,791**	**275,732**
Recycling customers–residential only	66,847	67,816	68,800	69,797	70,809	71,836
Tons	**32,646**	**33,120**	**33,600**	**34,087**	**34,581**	**35,083**
Organics customers - residential only	36,002	36,524	37,054	37,591	38,136	38,689
Tons	**5,117**	**5,191**	**5,267**	**5,343**	**5,421**	**5,499**

Curbside Materials Accepted by UTC-regulated haulers for recycling **For residential recyclables collected curbside** **Yes (Y) - countywide City - city specific No (N) - not provided** **G-cert hauler name & number: WCW - 253**	
Paper	
Mixed Paper	Y
Newspaper	Y
Cardboard	Y
Shredded Paper (bagged)	N
Non-foil wrapping paper	Y
Milk & Juice Cartons (no foil)	Y
septic Containers (milk, soy, soup, juice boxes)	Y
Poly-coat Food Boxes (dry & frozen)	N
Other Paper- please specify	
Metal	
Aluminum Cans	Y
Steel Cans	Y
Scrap Metal	Y
Aluminum Foil	Y
Other Metals - please specify	
Plastic	
Plastic Bottles, Jugs & Jars (#1s and 2s)	Y
Dairy Tubs (#5s)	Y
Plastics (#3-7)	Y
Other Plastics - please specify	
Glass	
Source-separated	Y
Commingled	N
Organics	
Yard and garden waste	Y
Food waste	City
Compostable packaging and/or service ware	N
Facilities	
Material sources	**do not need quantities**
Do your facilities accept materials from outside your county?	Y
Does your county have a flow control ordinance?	N

Facility Name Facilities where fees are charged to accept MSW, organics, or recyclables that are owned or operated by the county, or that the county contracts to operate.	**Facility Type** (transfer station, landfill, incinerator, drop-off site)	**Facility Location** (include full address)	**Facility Owner** (Name, phone & email)	**Facility Operator** (if different from owner)	**Current annual recycling** (tons or cubic yards if applicable)
Central Transfer and Recycling Center	Transfer, drop-off site	11034 NE 117th Ave.	Columbia Resource Company	N/A	9,093
West Vancouver Materials Recovery Facility	Transfer, drop-off site, MRF	6601 NW Old Lower River Road, Vancouver	Columbia Resource Company	N/A	34,622
Washougal Transfer Station	Transfer, drop-off site	4020 Grant St., Washougal	Columbia Resource Company	N/A	4,616

Estimated Tip/Disposal Fee Forecast In $ per ton or cubic yard						
Facility Name for facilities accepting MSW	**Base Year**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Central Transfer and Recycling Center	In contract negotiations – determining tip fees now					
West Vancouver Materials Recovery Facility	In contract negotiations – determining tip fees now					
Washougal Transfer Station	N/A	N/A	N/A	N/A	N/A	N/A
Tip/Disposal Fee Breakdown in $ per ton or cubic yard and/or % of total current tip fee						
Total facility operation, transfer & disposal	N/A	N/A	N/A	N/A	N/A	N/A
County or city administration if publicly owned or fee is set in contract	N/A	N/A	N/A	N/A	N/A	N/A
Capital improvements for publicly owned facilities	N/A	N/A	N/A	N/A	N/A	N/A
Estimated Program Costs examples of other sources include grants, surplus funds, and general fund monies						
	Base Year	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
% covered by all tipping fees	12.47%	12.47%	12.47%	12.47%	12.47%	12.47%
% covered by other sources	87.53%	87.53%	87.53%	87.53%	87.53%	87.53%

Operating and capital expenses

Discounted Rates Note Yes (Y) or (No) if you may request regulated haulers to establish discounted rates under RCW 81.77.195	
May request UTC-regulated haulers to charge discounted rates	Y
If yes, what year do you expect to make this request (if known)	unknown

D

APPENDIX D: Planning ILAs

INTERLOCAL AGREEMENT
HDC.2156
between
CLARK COUNTY
P.O. Box 9825, Vancouver, WA 98666
and
CITY OF BATTLE GROUND
109 SW 1st St, Battle Ground, WA 98604

Project: Update to Comprehensive Solid Waste Management Plan
Contract Name: CCPH City of Battle Ground CSWMP Interlocal HDC.2156
Contract Period: Upon Execution - Ongoing

County Contacts		
Program	**Fiscal**	**Contract**
Joelle Loescher 360.397.8126 Joelle.Loescher@clark.wa.gov	Kayla Mobley 564.397.8235 Kayla.Mobley@clark.wa.gov	Holly Barnfather 360.949.6965 GCT@clark.wa.gov

City Contacts		
Program	**Fiscal**	**Contract**
Mark Herceg 360.342.5075 mark.herceg@cityofbg.org	Meagan Lowery 360.342.5025 meagan.lowery@cityofbg.org	Mark Herceg 360.342.5075 mark.herceg@cityofbg.org

This Contract for governmental services, where both parties are public agencies, pursuant to RCW 39.34.080 is entered into between Clark County, hereinafter referred to as County, and the City of Battle Ground, hereinafter referred to as City. County and City agree to all terms and conditions, exhibits, and requirements of this contract.

CITY

Erin Erdman 10/23/23
Erin Erdman, City Manager Date

APPROVED AS TO FORM ONLY

Kirk Ellis 10/23/23
Kirk Ellis Date
City of Battle Ground Attorney

CLARK COUNTY

Kathleen Otto 11/08/23
Kathleen Otto, County Manager Date

APPROVED AS TO FORM ONLY

Amanda Migchelbrink 10/23/23
Amanda Migchelbrink Date
Deputy Prosecuting Attorney

DocuSign Envelope ID: 6116CEF4-2127-44C2-9FBD-944679181407

INTERLOCAL AGREEMENT
BETWEEN CLARK COUNTY AND CITIES OF
BATTLE GROUND, CAMAS, LA CENTER, RIDGEFIELD, VANCOUVER, WASHOUGAL, AND TOWN OF YACOLT
DESIGNATING CLARK COUNTY AS THE LEAD AGENCY FOR THE REVISION OF THE COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

Pursuant to Chapter 39.34 RCW and RCW 70A.205.040, this lnterlocal Agreement (Agreement) is entered into between Clark County and the City of Battle Ground, establishing the obligations of the Parties for the maintenance and adoption of the Clark County Comprehensive Solid Waste Management Plan (CSWMP).

WHEREAS, RCW 70A.205.010 and RCW 70A.300.007 assigns primary responsibility for solid waste and moderate risk waste planning to local government;and

WHEREAS, RCW 70A.205.040 and RCW 70A.300.350 require or authorize counties, in cooperation with the various cities located within such county, to prepare a coordinated comprehensive solid & hazardous waste management plan; and

WHEREAS, under RCW 70A.205.075, all solid waste management plans must be maintained in current condition by periodic updates that include the estimated long-range planning needs for solid waste handling facilities projected twenty years into the future and local governments may also periodically update their hazardous waste plans; and

WHEREAS, the City and the County (Parties), recognize that our citizens and businesses, public policymakers, and local government staff benefit from cooperative, coordinated, and shared approaches to managing the regional solid waste system; and

WHEREAS, RCW 70A.205.040(4)(c) outlines that cities may authorize the county to prepare a plan for the city's solid waste management; and

WHEREAS, the Parties previously entered into a Solid Waste lnterlocal Agreement on May 9, 2006 and have enjoyed a lengthy, productive, and effective working relationship in coordinating a wide range of solid waste disposal and collection issues; and

WHEREAS, in order to successfully develop, finance, and manage the Regional Solid Waste System, it is desirable that all waste generated in Clark County, including waste generated in incorporated cities and towns within the county, be disposed of through the Regional Solid Waste System and that the City authorizes the County to designate a disposal site(s) and transfer sites for the disposal of solid waste generated within the corporate limits of the City; and

WHEREAS, the Parties wish to adopt, maintain, and enforce minimum levels of service for residential source separation and collection of recyclables, including residential curbside recycling programs, multi-family recycling programs, and residential yard waste collection programs; and

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   - 7.1. Notice of intent to withdraw and develop an independent plan shall be given to all parties, including SWAC and RSWSSC, and shall be provided with 12 months' notice; and

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HDC.2157
between
CLARK COUNTY
P.O. Box 9825, Vancouver, WA 98666
and
CITY OF CAMAS
616 NE 4th Avenue, Camas, WA 98607

Project: Update to Comprehensive Solid Waste Management Plan
Contract Name: CCPH City of Camas CSWMP Interlocal HDC.2157
Contract Period: Upon Execution-Ongoing

County Contacts		
Program	**Fiscal**	**Contract**
Joelle Loescher 360.397.8126 Joelle.Loescher@clark.wa.gov	Kayla Mobley 564.397.8235 Kayla.Mobley@clark.wa.gov	Holly Bamfather 360.949.6965 CntyHealthGrantContract@clark.wa.gov

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CITY OF CAMAS:

Steven C. Hogan, Mayor Date

Attest:

City Clerk

APPROVED AS TO FORM ONLY:

By: Shawn MacPherson, City Attorney

CLARK COUNTY:

Kathleen Otto, County Manager Date

APPROVED AS TO FORM ONLY:

Amanda Migchelbrink Date
Deputy Prosecuting Attorney

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INTERLOCAL AGREEMENT
BETWEEN CLARK COUNTY AND CITIES OF BATTLE GROUND, CAMAS, LA CENTER, RIDGEFIELD, VANCOUVER, WASHOUGAL, AND TOWN OF YACOLT
DESIGNATING CLARK COUNTY AS THE LEAD AGENCY FOR THE REVISION OF THE COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

Pursuant to Chapter 39.34 RCW and RCW 70A.205.040, this Interlocal Agreement (Agreement) is entered into between Clark County and the City of Camas, establishing the obligations of the Parties for the maintenance and adoption of the Clark County Comprehensive Solid Waste Management Plan (CSWMP).

WHEREAS, RCW 70A.205.010 and RCW 70A.300.007 assigns primary responsibility for solid waste and moderate risk waste planning to local government; and

WHEREAS, RCW 70A.205.040 and RCW 70A.300.350 require or authorize counties, in cooperation with the various cities located within such county, to prepare a coordinated comprehensive solid & hazardous waste management plan; and

WHEREAS, under RCW 70A.205.075, all solid waste management plans must be maintained in current condition by periodic updates that include the estimated long range planning needs for solid waste handling facilities projected twenty years into the future and local governments may also periodically update their hazardous waste plans; and

WHEREAS, the City and the County (Parties), recognize that our citizens and businesses, public policymakers, and local government staff benefit from cooperative, coordinated, and shared approaches to managing the regional solid waste system; and

WHEREAS, RCW 70A.205.040(4)(c) outlines that cities may authorize the county to prepare a plan for the city's solid waste management; and

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HDC.2157
between
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P.O. Box 9825, Vancouver, WA 98666
and
CITY OF CAMAS
616 NE 4th Avenue, Camas, WA 98607

Project: Update to Comprehensive Solid Waste Management Plan
Contract Name: CCPH City of Camas CSWMP Interlocal HDC.2157
Contract Period: Upon Execution-Ongoing

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Program	**Fiscal**	**Contract**
Joelle Loescher 360.397.8126 Joelle.Loescher@clark.wa.gov	Kayla Mobley 564.397.8235 Kayla.Mobley@clark.wa.gov	Holly Barnfather 360.949.6965 GCT@clark.wa.gov

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Attest:

City Clerk

APPROVED AS TO FORM ONLY:

By: Shawn MacPherson, City Attorney

CLARK COUNTY

Kathleen Otto, County Manager — Date 12/20/23

APPROVED AS TO FORM ONLY:

Amanda Migchelbrink — Date 12/20/23
Deputy Prosecuting Attorney

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Attest:

City Clerk

APPROVED AS TO FORM ONLY:

By: Shawn MacPherson, City Attorney

CLARK COUNTY:

Kathleen Otto, County Manager Date

APPROVED AS TO FORM ONLY:

Amanda Migchelbrink Date
Deputy Prosecuting Attorney

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INTERLOCAL AGREEMENT
BETWEEN CLARK COUNTY AND CITIES OF BATTLE GROUND, CAMAS, LA CENTER, RIDGEFIELD, VANCOUVER, WASHOUGAL, AND TOWN OF YACOLT
DESIGNATING CLARK COUNTY AS THE LEAD AGENCY FOR THE REVISION OF THE COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

Pursuant to Chapter 39.34 RCW and RCW 70A.205.040, this Interlocal Agreement (Agreement) is entered into between Clark County and the City of Camas, establishing the obligations of the Parties for the maintenance and adoption of the Clark County Comprehensive Solid Waste Management Plan (CSWMP).

WHEREAS, RCW 70A.205.010 and RCW 70A.300.007 assigns primary responsibility for solid waste and moderate risk waste planning to local government; and

WHEREAS, RCW 70A.205.040 and RCW 70A.300.350 require or authorize counties, in cooperation with the various cities located within such county, to prepare a coordinated comprehensive solid & hazardous waste management plan; and

WHEREAS, under RCW 70A.205.075, all solid waste management plans must be maintained in current condition by periodic updates that include the estimated long range planning needs for solid waste handling facilities projected twenty years into the future and local governments may also periodically update their hazardous waste plans; and

WHEREAS, the City and the County (Parties), recognize that our citizens and businesses, public policymakers, and local government staff benefit from cooperative, coordinated, and shared approaches to managing the regional solid waste system; and

WHEREAS, RCW 70A.205.040(4)(c) outlines that cities may authorize the county to prepare a plan for the city's solid waste management; and

WHEREAS, the Parties previously entered into a Solid Waste Interlocal Agreement on May 9, 2006 and have enjoyed a lengthy, productive, and effective working relationship in coordinating a wide range of solid waste disposal and collection issues; and

WHEREAS, in order to successfully develop, finance, and manage the Regional Solid Waste System, it is desirable that all waste generated in Clark County, including waste generated in incorporated cities and towns within the county, be disposed of through the Regional Solid Waste System and that the City authorizes the County to designate a disposal site(s) and transfer sites for the disposal of solid waste generated within the corporate limits of the City; and

WHEREAS, the Parties wish to adopt, maintain, and enforce minimum levels of service for residential source separation and collection of recyclables, including residential curbside recycling programs, multi-family recycling programs, and residential yard waste collection programs; and

WHEREAS, as part of this Agreement, the City agrees to authorize the county to prepare a plan for the city's solid waste management for inclusion in the comprehensive county plan. If the City chooses not to participate fully in the planning process or to pass a resolution adopting the CSWMP, they agree to adopt the final version. If within 90 days of receiving the final draft from the County, a participating jurisdiction does not pass a resolution either adopting or disapproving the CSWMP and delivers that resolution to the County, the CSWMP will be considered adopted by that jurisdiction; and

WHEREAS, the Parties wish to continue working to develop and implement environmentally sound and cost-effective solid waste management programs including waste reduction and recycling programs that reduce greenhouse gas emissions as appropriate from the disposed waste stream.

NOW, THEREFORE, in consideration of the mutual benefits and covenants contained herein, it is hereby agreed:

1. Purpose of agreement. The Parties intend this Agreement to provide for continued cooperation by both parties in the updating of the CSWMP, implementation of that plan, and periodic updates or replacement of that plan, all in compliance with Chapters 70A.205 and 70A.300 RCW.

2. Authority and responsibilities.
   2.1. County shall act as lead agency for review of the CSWMP, and for preparation of the revised CSWMP, incorporating both solid waste and moderate risk waste elements.
   2.2. It is understood that the planning effort will be informed by the Solid Waste Advisory Committee (SWAC) and the Regional Solid Waste System Steering Committee (RSWSSC).
   2.3. It is understood that the Washington State Department of Ecology (Ecology) will consider approval of the revised CSWMP only after all local jurisdictions participating in the planning process have adopted the revised CSWMP.
   2.4. The responsibilities of all parties in the management, planning, operations, and collection services of solid waste programs (including moderate risk waste) will be delineated in the adopted CSWMP.
   2.5. No separate entity is being created by this Agreement.

3. Limitations.
   3.1. Nothing in this agreement shall supersede any authority granted to either the County or the City, or otherwise imply any control by one Party over the other Party.
   3.2. Nothing in this agreement shall obligate either Party to provide personnel or assume operation and maintenance responsibilities for the other party's facilities or operations. Nor shall any provision of this agreement change in any manner the rules and restrictions under which either party operates.

4. Dispute resolution. Any disputes arising under the terms of this agreement shall be resolved through a negotiated effort to reach consensus. The Parties may agree to mediation as part of such effort.

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5. Plan development process. The Parties agree to the following process for development of, updates to, and replacement of the CSWMP.
   5.1. Revision process
      5.1.1. With input from SWAC and RSWSSC, the County will develop a draft and circulate that draft to Ecology and all cities within the Clark County Regional Solid Waste System. The County will make that draft available to the public for comments on their website.
      5.1.2. After good faith consideration of any responses from the public, cities and town, and Ecology, County staff will prepare a final draft. After consultation with the city/town, SWAC, and RSWSSC, County will have the discretion to decide whether to change the final draft as a result of the responses.
      5.1.3. Upon adoption, as defined herein, County will submit the adopted final draft to Ecology.
   5.2. Amendments and updates
      5.2.1. All proposed amendments will be evaluated per the process defined in the CSWMP.
      5.2.2. Cities and towns that have signed the Agreement to join the Clark County Regional Solid Waste System may send possible amendments to the County for formal proposal. Upon such proposal, the County shall conduct the plan development process as outlined in this section.
      5.2.3. The County shall prepare CSWMP updates as required by Chapter 70A.205 RCW, 70A.300 RCW, or by Ecology.

6. Plan adoption. If within 90 days of receiving the final draft CSWMP from the County, a participating jurisdiction does not pass a resolution either adopting or disapproving the plan and delivers that resolution to the County, the CSWMP will be considered adopted by that jurisdiction. All participating jurisdictions will be notified by the County when the CSWMP is adopted and when the CSWMP is approved by Ecology.

7. Term. Commencing on the effective date as outlined below in this Agreement, this Agreement shall continue until rescinded, terminated as herein provided, or as outlined in the adopted subsequent plan. Any party hereto may withdraw and terminate its rights and obligations under this Agreement with the understanding that:
   7.1. Notice of intent to withdraw and develop an independent plan shall be given to all parties, including SWAC and RSWSSC, and shall be provided with 12 months' notice;

and

7.2. Prior to termination, a withdrawing City must have prepared and received approval from Ecology for their independent solid waste management plan; and

7.3. Termination will not absolve the City or County of responsibility for meeting financial and other obligations outstanding at the time of termination.

8. Effective date. This Agreement shall be effective upon its execution by the Clark County Council after execution by all other participating governments. The Parties agree that in the event this Agreement is approved on or after the effective date, the terms and conditions hereof shall be construed as having been in full force and effect as of the effective date.

9. Entire agreement and modification. This Agreement embodies the entire agreement and understanding between the Parties hereto with respect to its subject matter and supersedes all prior agreements and understandings, whether written or oral, relating to its subject matter. No amendment or modification of this Agreement shall be valid unless made in writing and signed by each of the Parties.

10. Indemnification / Hold harmless. City shall defend, indemnify and hold County, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or resulting from the negligent acts, errors or omissions of City in performance of this Agreement, except for injuries and damages caused by the sole negligence of County. Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of City, its officers, officials, employees, and volunteers, City's liability, including the duty and cost to defend, hereunder shall be only to the extent of the City's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the City's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

11. Public Records Act. Notwithstanding the provisions of this Agreement to the contrary, to the extent any record, including any electronic, audio, paper or other media, is required to be kept or indexed as a public record in accordance with the Washington Public Records Act, RCW Chapter 42.56, as may hereafter be amended, each party agrees to maintain all records

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constituting public records and to produce or assist both parties in producing such records, within the time frames and parameters set forth in state law. Each party further agrees that upon receipt of any written public record request from the public, shall, within two business days, notify the other party of receipt of the request by providing a copy of the request to the other party's Public Records Officer.

12. Recording or public listing. The Parties agree that this Agreement, after full execution, either will be recorded with the Clark County Auditor or listed by subject on Clark County's website or other electronically retrievable public source, as required by RCW 39.34.040.

13. Severability. If any provision of this Agreement is held invalid, the remainder would then continue to conform to the terms and requirements of applicable law.

INTERLOCAL AGREEMENT
HDC.2158
between
CLARK COUNTY
P.O. Box 9825, Vancouver, WA 98666
and
CITY OF LA CENTER
210 E. 4th Street, La Center, WA 98629

Project: Update to Comprehensive Solid Waste Management Plan
Contract Name: CCPH City of La Center CSWMP Interlocal HDC.2158
Contract Period: Upon Execution-Ongoing

County Contacts		
Program	**Fiscal**	**Contract**
Joelle Loescher 360.397.8126 Joelle.Loescher@clark.wa.gov	Kayla Mobley 564.397.8235 Kayla.Mobley@clark.wa.gov	Holly Barnfather 360.949.6965 GCT@clark.wa.gov

City Contacts		
Program	**Fiscal**	**Contract**
Bryan Kast 360.605.2269 bkast@ci.lacenter.wa.us	Maria Swinger-Inskeep 360-263-8663 mswingerinskeep@ci.lacenter.wa.us	Bryan Kast 360.605.2269 bkast@ci.lacenter.wa.us

This Contract for governmental services, where both parties are public agencies, pursuant to RCW 39.34.080 is entered into between Clark County, hereinafter referred to as the "County", and the City of La Center, hereinafter referred to as the "City". County and City agree to all terms and conditions, exhibits, and requirements of this contract.

CITY OF LA CENTER

Thomas Strobehn, Mayor Date

APPROVED AS TO FORM:

10/25/23
E. Bronson Potter Date
City Attorney

CLARK COUNTY

Kathleen Otto 11/08/23
Kathleen Otto, County Manager Date

APPROVED AS TO FORM:

Amanda Migchelbrink 11/08/23
Amanda Migchelbrink Date
Deputy Prosecuting Attorney

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INTERLOCAL AGREEMENT
BETWEEN CLARK COUNTY AND CITIES OF
BATTLE GROUND, CAMAS, LA CENTER, RIDGEFIELD, VANCOUVER,
WASHOUGAL, AND TOWN OF YACOLT
DESIGNATING CLARK COUNTY AS THE LEAD AGENCY FOR THE REVISION OF
THE COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

Pursuant to Chapter 39.34 RCW and RCW 70A.205.040, this Interlocal Agreement (Agreement) is entered into between Clark County and the City of La Center, establishing the obligations of the Parties for the maintenance and adoption of the Clark County Comprehensive Solid Waste Management Plan (CSWMP).

WHEREAS, RCW 70A.205.010 and RCW 70A.300.007 assigns primary responsibility for solid waste and moderate risk waste planning to local government; and

WHEREAS, RCW 70A.205.040 and RCW 70A.300.350 require or authorize counties, in cooperation with the various cities located within such county, to prepare a coordinated comprehensive solid & hazardous waste management plan; and

WHEREAS, under RCW 70A.205.075, all solid waste management plans must be maintained in current condition by periodic updates that include the estimated long-range planning needs for solid waste handling facilities projected twenty years into the future and local governments may also periodically update their hazardous waste plans; and

WHEREAS, the City and the County ("Parties"), recognize that our citizens and businesses, public policymakers, and local government staff benefit from cooperative, coordinated, and shared approaches to managing the regional solid waste system; and

WHEREAS, RCW 70A.205.040(4)(c) outlines that cities may authorize the county to prepare a plan for the city's solid waste management; and

WHEREAS, the Parties previously entered into a Solid Waste Interlocal Agreement on May 9, 2006 and have enjoyed a lengthy, productive, and effective working relationship in coordinating a wide range of solid waste disposal and collection issues; and

WHEREAS, in order to successfully develop, finance, and manage the Regional Solid Waste System, it is desirable that all waste generated in Clark County, including waste generated in incorporated cities and towns within the county, be disposed of through the Regional Solid Waste System and

that the City authorizes the County to designate a disposal site(s) and transfer sites for the disposal of solid waste generated within the corporate limits of the City; and

WHEREAS, the Parties wish to adopt, maintain, and enforce minimum levels of service for residential source separation and collection of recyclables, including residential curbside recycling programs, multi-family recycling programs, and residential yard waste collection programs; and

WHEREAS, as part of this Agreement, the City agrees to authorize the county to prepare a plan for the city's solid waste management for inclusion in the CSWMP.; and

WHEREAS, the Parties wish to continue working to develop and implement environmentally sound and cost-effective solid waste management programs including waste reduction and recycling programs that reduce greenhouse gas emissions as appropriate from the disposed waste stream.

NOW, THEREFORE, in consideration of the mutual benefits and covenants contained herein, it is hereby agreed:

1. Purpose of agreement. The Parties intend this Agreement to provide for continued cooperation by both parties in the updating of the CSWMP, implementation of that plan, and periodic updates or replacement of that plan, all in compliance with Chapters 70A.205 and 70A.300 RCW.

2. Authority and responsibilities.
   - 2.1. County shall act as lead agency for review of the CSWMP, and for preparation of the revised CSWMP, incorporating both solid waste and moderate risk waste elements.
   - 2.2. It is understood that the planning effort will be informed by the Solid Waste Advisory Committee (SWAC) and the Regional Solid Waste System Steering Committee (RSWSSC).
   - 2.3. It is understood that the Washington State Department of Ecology (Ecology) will consider approval of the revised CSWMP only after all local jurisdictions participating in the planning process have adopted the revised CSWMP.
   - 2.4. The responsibilities of all parties in the management, planning, operations, and collection services of solid waste programs (including moderate risk waste) will be delineated in the adopted CSWMP.
   - 2.5. No separate entity is being created by this Agreement.

3. Limitations.
   - 3.1. Nothing in this agreement shall supersede any authority granted to either the County or the

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City, or otherwise imply any control by one Party over the other Party.

   - 3.2. Nothing in this agreement shall obligate either Party to provide personnel or assume operation and maintenance responsibilities for the other party's facilities or operations. Nor shall any provision of this agreement change in any manner the rules and restrictions under which either party operates.

4. Dispute resolution. Any disputes arising under the terms of this agreement shall be resolved through a negotiated effort to reach consensus. The Parties may agree to mediation as part of such effort.

5. Plan development process. The Parties agree to the following process for development of, updates to, and replacement of the CSWMP.
   - 5.1. Revision process
     - 5.1.1. With input from SWAC and RSWSSC, the County will develop a draft and circulate that draft to Ecology and all cities within the Clark County Regional Solid Waste System. The County will make that draft available to the public for comments on their website.
     - 5.1.2. After good faith consideration of any responses from the public, cities and town, and Ecology, County staff will prepare a final draft. After consultation with the City, SWAC, and RSWSSC, the County will have the discretion to decide whether to change the final draft as a result of the responses.
     - 5.1.3. Upon adoption, as defined herein, the County will submit the adopted final draft to Ecology.
   - 5.2. Amendments and updates
     - 5.2.1. All proposed amendments will be evaluated per the process defined in the CSWMP.
     - 5.2.2. Cities and towns that have signed the Agreement to join the Clark County Regional Solid Waste System may send possible amendments to the County for formal proposal. Upon such proposal, the County shall conduct the plan development process as outlined in this section.
     - 5.2.3. The County shall prepare CSWMP updates as required by Chapter 70A.205 RCW, 70A.300 RCW, or by Ecology.

6. Plan adoption. If within 90 days of receiving the final draft CSWMP from the County, the City does not pass a resolution either adopting or disapproving the plan and deliver that resolution to

the County, the City authorizes the County to include the city's solid waste plan prepared by the County in the CSWMP. All participating jurisdictions will be notified by the County when the CSWMP is adopted and when the CSWMP is approved by Ecology.

7. Term. Commencing on the effective date as outlined below in this Agreement, this Agreement shall continue until rescinded, terminated as herein provided, or as outlined in the adopted subsequent plan. Any party hereto may withdraw and terminate its rights and obligations under this Agreement with the understanding that:
   7.1. Notice of intent to withdraw and develop an independent plan shall be given to all parties, including SWAC and RSWSSC, and shall be provided with 12 months' notice; and
   7.2. Prior to termination, a withdrawing City must have prepared and received approval from Ecology for their independent solid waste management plan; and
   7.3. Termination will not absolve the City or County of responsibility for meeting financial and other obligations outstanding at the time of termination.

8. Effective date. This Agreement shall be effective upon its execution by the Clark County Council after execution by all other participating governments. The Parties agree that in the event this Agreement is approved on or after the effective date, the terms and conditions hereof shall be construed as having been in full force and effect as of the effective date.

9. Entire agreement and modification. This Agreement embodies the entire agreement and understanding between the Parties hereto with respect to its subject matter and supersedes all prior agreements and understandings, whether written or oral, relating to its subject matter. No amendment or modification of this Agreement shall be valid unless made in writing and signed by each of the Parties.

10. Indemnification / Hold harmless. County shall defend, indemnify, and hold City, its officers, officials, employees, and volunteers harmless from any and all claims, injuries, damages, losses, or suits including attorney fees, arising out of, or resulting from the negligent acts, errors or omissions of County in performance of this Agreement, except for injuries and damages caused by the negligence of City. City shall defend, indemnify, and hold County, its officers, officials, employees, and volunteers harmless from any and all claims, injuries, damages, losses, or suits including attorney fees, arising out of or resulting from the negligent acts, errors or omissions of City in performance of this Agreement, except for injuries and damages caused by the negligence

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of County. Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the parties, the indemnifying party's liability, including the duty and cost to defend, hereunder shall be only to the extent of that party's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes each party's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

11. Public Records Act. Notwithstanding the provisions of this Agreement to the contrary, to the extent any record, including any electronic, audio, paper or other media, is required to be kept or indexed as a public record in accordance with the Washington Public Records Act, RCW Chapter 42.56, as may hereafter be amended, each party agrees to maintain all records constituting public records and to produce or assist both parties in producing such records, within the time frames and parameters set forth in state law. Each party further agrees that upon receipt of any written public record request from the public, shall, within two business days, notify the other party of receipt of the request by providing a copy of the request to the other party's Public Records Officer.

12. Recording or public listing. The Parties agree that this Agreement, after full execution, either will be recorded with the Clark County Auditor or listed by subject on Clark County's website or other electronically retrievable public source, as required by RCW 39.34.040.

13. Severability. If any provision of this Agreement is held invalid, the remainder would then continue to conform to the terms and requirements of applicable law.

INTERLOCAL AGREEMENT
HDC.2157
between
CLARK COUNTY
P.O. Box 9825, Vancouver, WA 98666
and
CITY OF CAMAS
616 NE 4th Avenue, Camas, WA 98607

Project: Update to Comprehensive Solid Waste Management Plan
Contract Name: CCPH City of Camas CSWMP Interlocal HDC.2157
Contract Period: Upon Execution-Ongoing

County Contacts		
Program	**Fiscal**	**Contract**
Joelle Loescher 360.397.8126 Joelle.Loescher@clark.wa.gov	Kayla Mobley 564.397.8235 Kayla.Mobley@clark.wa.gov	Holly Bamfather 360.949.6965 CntyHealthGrantContract@clark.wa.gov

City Contacts		
Program	**Fiscal**	**Contract**
Steve Wall Public Works Director 360.817-7899 swall@cityofcamas.us	Cathy Huber Nickerson Finance Director 360 834 2462 chuber@cityofcamas.us	Ronda Syverson Procurement Specialist 360 834 2462 rsyverson@cityofcamas.us

This Contract for governmental services, where both parties are public agencies, pursuant to RCW 39.34.080 is entered into between Clark County, hereinafter referred to as County, and City of Camas, hereinafter referred to as City. County and City agree to all terms and conditions, exhibits, and requirements of this contract.

CITY OF CAMAS:

Steven C. Hogan, Mayor Date

Attest:

City Clerk

APPROVED AS TO FORM ONLY:

By: Shawn MacPherson, City Attorney

CLARK COUNTY:

Kathleen Otto, County Manager Date

APPROVED AS TO FORM ONLY:

Amanda Migchelbrink Date
Deputy Prosecuting Attorney

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8. Effective date. This Agreement shall be effective upon its execution by the Clark County Council after execution by all other participating governments. The Parties agree that in the event this Agreement is approved on or after the effective date, the terms and conditions hereof shall be construed as having been in full force and effect as of the effective date.

9. Entire agreement and modification. This Agreement embodies the entire agreement and understanding between the Parties hereto with respect to its subject matter and supersedes all prior agreements and understandings, whether written or oral, relating to its subject matter. No amendment or modification of this Agreement shall be valid unless made in writing and signed by each of the Parties.

10. Indemnification / Hold harmless. City shall defend, indemnify and hold County, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or resulting from the negligent acts, errors or omissions of City in performance of this Agreement, except for injuries and damages caused by the sole negligence of County. Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of City, its officers, officials, employees, and volunteers, City's liability, including the duty and cost to defend, hereunder shall be only to the extent of the City's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the City's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

11. Public Records Act. Notwithstanding the provisions of this Agreement to the contrary, to the extent any record, including any electronic, audio, paper or other media, is required to be kept or indexed as a public record in accordance with the Washington Public Records Act, RCW Chapter 42.56, as may hereafter be amended, each party agrees to maintain all records

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constituting public records and to produce or assist both parties in producing such records, within the time frames and parameters set forth in state law. Each party further agrees that upon receipt of any written public record request from the public, shall, within two business days, notify the other party of receipt of the request by providing a copy of the request to the other party's Public Records Officer.

12. Recording or public listing. The Parties agree that this Agreement, after full execution, either will be recorded with the Clark County Auditor or listed by subject on Clark County's website or other electronically retrievable public source, as required by RCW 39.34.040.

13. Severability. If any provision of this Agreement is held invalid, the remainder would then continue to conform to the terms and requirements of applicable law.

INTERLOCAL AGREEMENT
HDC.2159
between
CLARK COUNTY
P.O. Box 9825, Vancouver, WA 98666
and
CITY OF RIDGEFIELD
230 Pioneer Street
PO BOX 608
Ridgefield, WA 98642

Project: Update to Comprehensive Solid Waste Management Plan
Contract Name: CCPH City of Ridgefield CSWMP Interlocal HDC.2159
Contract Period: Upon Execution-Ongoing

County Contacts		
Program	**Fiscal**	**Contract**
Joelle Loescher 360.397.8126 Joelle.Loescher@clark.wa.gov	Kayla Mobley 564.397.8235 Kayla.Mobley@clark.wa.gov	Holly Barnfather 360.949.6965 CntyHealthGrantContract@clark.wa.gov

City Contacts		
Program	**Fiscal**	**Contract**
Chuck Green, PE 360.857-5022 Chuck.Green@ridgefieldwa.us	Kirk Johnson 360.857-5008 kirk.johnson@ridgefieldwa.us	Kirk Johnson 360.857-5008 kirk.johnson@ridgefieldwa.us

This Contract for governmental services, where both parties are public agencies, pursuant to RCW 39.34.080 is entered into between Clark County, hereinafter referred to as County, and City of Ridgefield, hereinafter referred to as City. County and City agree to all terms and conditions, exhibits, and requirements of this contract.

CITY

DocuSigned by:
Steve Stuart
82CF8E4BB80C42D...
11/6/2023
Steve Stuart, City Manager Date
Steve.Stuart@ridgefieldwa.us

COUNTY

Kathleen Otto
11/09/23
Kathleen Otto, County Manager Date

CITY

DocuSigned by:
Janean Parker
242337742975479...
11/6/2023
Janean Parker, City Attorney Date
jzparkerlaw@outlook.com

APPROVED AS TO FORM ONLY:

Amanda Migchelbrink
11/09/23
Amanda Migchelbrink Date
Deputy Prosecuting Attorney

DocuSign Envelope ID: 29058629-D474-4F19-A4D5-3F3F777562D8

INTERLOCAL AGREEMENT
BETWEEN CLARK COUNTY AND CITIES OF
BATTLE GROUND, CAMAS, LA CENTER, RIDGEFIELD, VANCOUVER,
WASHOUGAL, AND TOWN OF YACOLT
DESIGNATING CLARK COUNTY AS THE LEAD AGENCY FOR THE REVISION OF
THE COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

Pursuant to Chapter 39.34 RCW and RCW 70A.205.040, this lnterlocal Agreement (Agreement) is entered into between Clark County and the City of Ridgefield, establishing the obligations of the Parties for the maintenance and adoption of the Clark County Comprehensive Solid Waste Management Plan (CSWMP).

WHEREAS, RCW 70A.205.010 and RCW 70A.300.007 assigns primary responsibility for solid waste and moderate risk waste planning to local government;and

WHEREAS, RCW 70A.205.040 and RCW 70A.300.350 require or authorize counties, in cooperation with the various cities located within such county, to prepare a coordinated comprehensive solid & hazardous waste management plan; and

WHEREAS, under RCW 70A.205.075, all solid waste management plans must be maintained in current condition by periodic updates that include the estimated long-range planning needs for solid waste handling facilities projected twenty years into the future and local governments may also periodically update their hazardous waste plans; and

WHEREAS, the City and the County ("Parties"), recognize that our citizens and businesses, public policymakers, and local government staff benefit from cooperative, coordinated, and shared approaches to managing the regional solid waste system; and

WHEREAS, RCW 70A.205.040(4)(c) outlines that cities may authorize the county to prepare a plan for the city's solid waste management; and

WHEREAS, the Parties previously initially into a Solid Waste lnterlocal Agreement on May 9, 2006, and have enjoyed a lengthy, productive, and effective working relationship in coordinating a wide range of solid waste disposal and collection issues; and

WHEREAS, in order to successfully develop, finance, and manage the Regional Solid Waste System, it is desirable that all waste generated in Clark County, including waste generated in incorporated cities and towns within the county, be disposed of through the Regional Solid Waste System and

that the City authorizes the County to designate a disposal site(s) and transfer sites for the disposal of solid waste generated within the corporate limits of the City; and

WHEREAS, the Parties wish to adopt, maintain, and enforce minimum levels of service for residential source separation and collection of recyclables, including residential curbside recycling programs, multi-family recycling programs, and residential yard waste collection programs; and

WHEREAS, as part of this Agreement, the City agrees to authorize the county to prepare a plan for the city's solid waste management for inclusion in the CSWMP.; and

WHEREAS, the Parties wish to continue working to develop and implement environmentally sound and cost-effective solid waste management programs including waste reduction and recycling programs that reduce greenhouse gas emissions as appropriate from the disposed waste stream.

NOW, THEREFORE, in consideration of the mutual benefits and covenants contained herein, it is hereby agreed:

1. Purpose of agreement. The Parties intend this Agreement to provide for continued cooperation by both parties in the updating of the CSWMP, implementation of that plan, and periodic updates or replacement of that plan, all in compliance with Chapters 70A.205 and 70A.300 RCW.

2. Authority and responsibilities.
   2.1. County shall act as lead agency for review of the CSWMP, and for preparation of the revised CSWMP, incorporating both solid waste and moderate risk waste elements.
   2.2. It is understood that the planning effort will be informed by the Solid Waste Advisory Committee (SWAC) and the Regional Solid Waste System Steering Committee (RSWSSC).
   2.3. It is understood that the Washington State Department of Ecology (Ecology) will consider approval of the revised CSWMP only after all local jurisdictions participating in the planning process have adopted the revised CSWMP.
   2.4. The responsibilities of all parties in the management, planning, operations, and collection services of solid waste programs (including moderate risk waste) will be delineated in the adopted CSWMP.
   2.5. No separate entity is being created by this Agreement.

3. Limitations.
   3.1. Nothing in this agreement shall supersede any authority granted to either the County or the

City, or otherwise imply any control by one Party over the other Party.

   3.2. Nothing in this agreement shall obligate either Party to provide personnel or assume operation and maintenance responsibilities for the other party's facilities or operations. Nor shall any provision of this agreement change in any manner the rules and restrictions under which either party operates.

4. Dispute resolution. Any disputes arising under the terms of this agreement shall be resolved through a negotiated effort to reach consensus. The Parties may agree to mediation as part of such effort.

5. Plan development process. The Parties agree to the following process for development of, updates to, and replacement of the CSWMP.
   5.1. Revision process
      5.1.1. With input from SWAC and RSWSSC, the County will develop a draft and circulate that draft to Ecology and all cities within the Clark County Regional Solid Waste System. The County will make that draft available to the public for comments on their website.
      5.1.2. After good faith consideration of any responses from the public, cities and town, and Ecology, County staff will prepare a final draft. After consultation with the city/town, SWAC, and RSWSSC, County will have the discretion to decide whether to change the final draft as a result of the responses.
      5.1.3. Upon adoption, as defined herein, County will submit the adopted final draft to Ecology.
   5.2. Amendments and updates
      5.2.1. All proposed amendments will be evaluated per the process defined in the CSWMP.
      5.2.2. Cities and towns that have signed the Agreement to join the Clark County Regional Solid Waste System may send possible amendments to the County for formal proposal. Upon such proposal, the County shall conduct the plan development process as outlined in this section.
      5.2.3. The County shall prepare CSWMP updates as required by Chapter 70A.205 RCW, 70A.300 RCW, or by Ecology.

6. Plan adoption. If within 90 days of receiving the final draft CSWMP from the County, the City does not pass a resolution either adopting or disapproving the plan and deliver that resolution to the County, the City authorizes the County to include the city's solid waste plan prepared by the

County in the CSWMP. All participating jurisdictions will be notified by the County when the CSWMP is adopted and when the CSWMP is approved by Ecology.

7. Term. Commencing on the effective date as outlined below in this Agreement, this Agreement shall continue until rescinded, terminated as herein provided, or as outlined in the adopted subsequent plan. Any party hereto may withdraw and terminate its rights and obligations under this Agreement with the understanding that:
   7.1. Notice of intent to withdraw and develop an independent plan shall be given to all parties, including SWAC and RSWSSC, and shall be provided with 12 months' notice; and
   7.2. Prior to termination, a withdrawing City must have prepared and received approval from Ecology for their independent solid waste management plan; and
   7.3. Termination will not absolve the City or County of responsibility for meeting financial and other obligations outstanding at the time of termination.

8. Effective date. This Agreement shall be effective upon its execution by the Clark County Council after execution by all other participating governments. The Parties agree that in the event this Agreement is approved on or after the effective date, the terms and conditions hereof shall be construed as having been in full force and effect as of the effective date.

9. Entire agreement and modification. This Agreement embodies the entire agreement and understanding between the Parties hereto with respect to its subject matter and supersedes all prior agreements and understandings, whether written or oral, relating to its subject matter. No amendment or modification of this Agreement shall be valid unless made in writing and signed by each of the Parties.

10. Indemnification / Hold harmless. City shall defend, indemnify, and hold County, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or resulting from the negligent acts, errors or omissions of City in performance of this Agreement, except for injuries and damages caused by the sole negligence of County. Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of City, its officers, officials, employees, and volunteers, City's liability, including the duty and cost to defend, hereunder shall be only to the extent of the City's negligence. It is

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further specifically and expressly understood that the indemnification provided herein constitutes the City's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

11. Public Records Act. Notwithstanding the provisions of this Agreement to the contrary, to the extent any record, including any electronic, audio, paper or other media, is required to be kept or indexed as a public record in accordance with the Washington Public Records Act, RCW Chapter 42.56, as may hereafter be amended, each party agrees to maintain all records constituting public records and to produce or assist both parties in producing such records, within the time frames and parameters set forth in state law. Each party further agrees that upon receipt of any written public record request from the public, shall, within two business days, notify the other party of receipt of the request by providing a copy of the request to the other party's Public Records Officer.

12. Recording or public listing. The Parties agree that this Agreement, after full execution, either will be recorded with the Clark County Auditor or listed by subject on Clark County's website or other electronically retrievable public source, as required by RCW 39.34.040.

13. Severability. If any provision of this Agreement is held invalid, the remainder would then continue to conform to the terms and requirements of applicable law.

INTERLOCAL AGREEMENT
HDC.2157
between
CLARK COUNTY
P.O. Box 9825, Vancouver, WA 98666
and
CITY OF CAMAS
616 NE 4th Avenue, Camas, WA 98607

Project: Update to Comprehensive Solid Waste Management Plan
Contract Name: CCPH City of Camas CSWMP Interlocal HDC.2157
Contract Period: Upon Execution-Ongoing

County Contacts		
Program	**Fiscal**	**Contract**
Joelle Loescher 360.397.8126 Joelle.Loescher@clark.wa.gov	Kayla Mobley 564.397.8235 Kayla.Mobley@clark.wa.gov	Holly Bamfather 360.949.6965 CntyHealthGrantContract@clark.wa.gov

City Contacts		
Program	**Fiscal**	**Contract**
Steve Wall Public Works Director 360.817-7899 swall@cityofcamas.us	Cathy Huber Nickerson Finance Director 360 834 2462 chuber@cityofcamas.us	Ronda Syverson Procurement Specialist 360 834 2462 rsyverson@cityofcamas.us

This Contract for governmental services, where both parties are public agencies, pursuant to RCW 39.34.080 is entered into between Clark County, hereinafter referred to as County, and City of Camas, hereinafter referred to as City. County and City agree to all terms and conditions, exhibits, and requirements of this contract.

CITY OF CAMAS:

Steven C. Hogan, Mayor Date

Attest:

City Clerk

APPROVED AS TO FORM ONLY:

By: Shawn MacPherson, City Attorney

CLARK COUNTY:

Kathleen Otto, County Manager Date

APPROVED AS TO FORM ONLY:

Amanda Migchelbrink Date
Deputy Prosecuting Attorney

DocuSign Envelope ID: 29058629-D474-4F19-A4D5-3F3F777562D8

INTERLOCAL AGREEMENT
BETWEEN CLARK COUNTY AND CITIES OF BATTLE GROUND, CAMAS, LA CENTER, RIDGEFIELD, VANCOUVER, WASHOUGAL, AND TOWN OF YACOLT
DESIGNATING CLARK COUNTY AS THE LEAD AGENCY FOR THE REVISION OF THE COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

Pursuant to Chapter 39.34 RCW and RCW 70A.205.040, this Interlocal Agreement (Agreement) is entered into between Clark County and the City of Camas, establishing the obligations of the Parties for the maintenance and adoption of the Clark County Comprehensive Solid Waste Management Plan (CSWMP).

WHEREAS, RCW 70A.205.010 and RCW 70A.300.007 assigns primary responsibility for solid waste and moderate risk waste planning to local government; and

WHEREAS, RCW 70A.205.040 and RCW 70A.300.350 require or authorize counties, in cooperation with the various cities located within such county, to prepare a coordinated comprehensive solid & hazardous waste management plan; and

WHEREAS, under RCW 70A.205.075, all solid waste management plans must be maintained in current condition by periodic updates that include the estimated long range planning needs for solid waste handling facilities projected twenty years into the future and local governments may also periodically update their hazardous waste plans; and

WHEREAS, the City and the County (Parties), recognize that our citizens and businesses, public policymakers, and local government staff benefit from cooperative, coordinated, and shared approaches to managing the regional solid waste system; and

WHEREAS, RCW 70A.205.040(4)(c) outlines that cities may authorize the county to prepare a plan for the city's solid waste management; and

WHEREAS, the Parties previously entered into a Solid Waste Interlocal Agreement on May 9, 2006 and have enjoyed a lengthy, productive, and effective working relationship in coordinating a wide range of solid waste disposal and collection issues; and

WHEREAS, in order to successfully develop, finance, and manage the Regional Solid Waste System, it is desirable that all waste generated in Clark County, including waste generated in incorporated cities and towns within the county, be disposed of through the Regional Solid Waste System and that the City authorizes the County to designate a disposal site(s) and transfer sites for the disposal of solid waste generated within the corporate limits of the City; and

WHEREAS, the Parties wish to adopt, maintain, and enforce minimum levels of service for residential source separation and collection of recyclables, including residential curbside recycling programs, multi-family recycling programs, and residential yard waste collection programs; and

WHEREAS, as part of this Agreement, the City agrees to authorize the county to prepare a plan for the city's solid waste management for inclusion in the comprehensive county plan. If the City chooses not to participate fully in the planning process or to pass a resolution adopting the CSWMP, they agree to adopt the final version. If within 90 days of receiving the final draft from the County, a participating jurisdiction does not pass a resolution either adopting or disapproving the CSWMP and delivers that resolution to the County, the CSWMP will be considered adopted by that jurisdiction; and

WHEREAS, the Parties wish to continue working to develop and implement environmentally sound and cost-effective solid waste management programs including waste reduction and recycling programs that reduce greenhouse gas emissions as appropriate from the disposed waste stream.

NOW, THEREFORE, in consideration of the mutual benefits and covenants contained herein, it is hereby agreed:

1. Purpose of agreement. The Parties intend this Agreement to provide for continued cooperation by both parties in the updating of the CSWMP, implementation of that plan, and periodic updates or replacement of that plan, all in compliance with Chapters 70A.205 and 70A.300 RCW.

2. Authority and responsibilities.
   2.1. County shall act as lead agency for review of the CSWMP, and for preparation of the revised CSWMP, incorporating both solid waste and moderate risk waste elements.
   2.2. It is understood that the planning effort will be informed by the Solid Waste Advisory Committee (SWAC) and the Regional Solid Waste System Steering Committee (RSWSSC).
   2.3. It is understood that the Washington State Department of Ecology (Ecology) will consider approval of the revised CSWMP only after all local jurisdictions participating in the planning process have adopted the revised CSWMP.
   2.4. The responsibilities of all parties in the management, planning, operations, and collection services of solid waste programs (including moderate risk waste) will be delineated in the adopted CSWMP.
   2.5. No separate entity is being created by this Agreement.

3. Limitations.
   3.1. Nothing in this agreement shall supersede any authority granted to either the County or the City, or otherwise imply any control by one Party over the other Party.
   3.2. Nothing in this agreement shall obligate either Party to provide personnel or assume operation and maintenance responsibilities for the other party's facilities or operations. Nor shall any provision of this agreement change in any manner the rules and restrictions under which either party operates.

4. Dispute resolution. Any disputes arising under the terms of this agreement shall be resolved through a negotiated effort to reach consensus. The Parties may agree to mediation as part of such effort.

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5. Plan development process. The Parties agree to the following process for development of, updates to, and replacement of the CSWMP.
   5.1. Revision process
      5.1.1. With input from SWAC and RSWSSC, the County will develop a draft and circulate that draft to Ecology and all cities within the Clark County Regional Solid Waste System. The County will make that draft available to the public for comments on their website.
      5.1.2. After good faith consideration of any responses from the public, cities and town, and Ecology, County staff will prepare a final draft. After consultation with the city/town, SWAC, and RSWSSC, County will have the discretion to decide whether to change the final draft as a result of the responses.
      5.1.3. Upon adoption, as defined herein, County will submit the adopted final draft to Ecology.
   5.2. Amendments and updates
      5.2.1. All proposed amendments will be evaluated per the process defined in the CSWMP.
      5.2.2. Cities and towns that have signed the Agreement to join the Clark County Regional Solid Waste System may send possible amendments to the County for formal proposal. Upon such proposal, the County shall conduct the plan development process as outlined in this section.
      5.2.3. The County shall prepare CSWMP updates as required by Chapter 70A.205 RCW, 70A.300 RCW, or by Ecology.

6. Plan adoption. If within 90 days of receiving the final draft CSWMP from the County, a participating jurisdiction does not pass a resolution either adopting or disapproving the plan and delivers that resolution to the County, the CSWMP will be considered adopted by that jurisdiction. All participating jurisdictions will be notified by the County when the CSWMP is adopted and when the CSWMP is approved by Ecology.

7. Term. Commencing on the effective date as outlined below in this Agreement, this Agreement shall continue until rescinded, terminated as herein provided, or as outlined in the adopted subsequent plan. Any party hereto may withdraw and terminate its rights and obligations under this Agreement with the understanding that:
   7.1. Notice of intent to withdraw and develop an independent plan shall be given to all parties, including SWAC and RSWSSC, and shall be provided with 12 months' notice;

and

7.2. Prior to termination, a withdrawing City must have prepared and received approval from Ecology for their independent solid waste management plan; and

7.3. Termination will not absolve the City or County of responsibility for meeting financial and other obligations outstanding at the time of termination.

8. Effective date. This Agreement shall be effective upon its execution by the Clark County Council after execution by all other participating governments. The Parties agree that in the event this Agreement is approved on or after the effective date, the terms and conditions hereof shall be construed as having been in full force and effect as of the effective date.

9. Entire agreement and modification. This Agreement embodies the entire agreement and understanding between the Parties hereto with respect to its subject matter and supersedes all prior agreements and understandings, whether written or oral, relating to its subject matter. No amendment or modification of this Agreement shall be valid unless made in writing and signed by each of the Parties.

10. Indemnification / Hold harmless. City shall defend, indemnify and hold County, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or resulting from the negligent acts, errors or omissions of City in performance of this Agreement, except for injuries and damages caused by the sole negligence of County. Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of City, its officers, officials, employees, and volunteers, City's liability, including the duty and cost to defend, hereunder shall be only to the extent of the City's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the City's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

11. Public Records Act. Notwithstanding the provisions of this Agreement to the contrary, to the extent any record, including any electronic, audio, paper or other media, is required to be kept or indexed as a public record in accordance with the Washington Public Records Act, RCW Chapter 42.56, as may hereafter be amended, each party agrees to maintain all records

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constituting public records and to produce or assist both parties in producing such records, within the time frames and parameters set forth in state law. Each party further agrees that upon receipt of any written public record request from the public, shall, within two business days, notify the other party of receipt of the request by providing a copy of the request to the other party's Public Records Officer.

12. Recording or public listing. The Parties agree that this Agreement, after full execution, either will be recorded with the Clark County Auditor or listed by subject on Clark County's website or other electronically retrievable public source, as required by RCW 39.34.040.

13. Severability. If any provision of this Agreement is held invalid, the remainder would then continue to conform to the terms and requirements of applicable law.

INTERLOCAL AGREEMENT
HDC.2160
between
CLARK COUNTY
P.O. Box 9825, Vancouver, WA 98666
and
CITY OF VANCOUVER
P.O. Box 1995, Vancouver, WA 98666

Project:	Update to Comprehensive Solid Waste Management Plan
Contract Name:	CCPH City of Vancouver CSWMP Interlocal HDC.2160
Contract Period:	Upon Execution - For Three Years

County Contacts		
Program	**Fiscal**	**Contract**
Joelle Loescher 360.397.8126 Joelle.Loescher@clark.wa.gov	Kayla Mobley 564.397.8235 Kayla.Mobley@clark.wa.gov	Rebecca Addington 564.397.8415 GCT@clark.wa.gov

City Contacts		
Program	**Fiscal**	**Contract**
Julie Gilbertson 360.487.7162 julie.gilbertson@cityofvancouver.us	Shannon Turk 360.487.7132 shannon.turk@cityofvancouver.us	Anna Vogel 360.487.8429 anna.vogel@cityofvancouver.us

This Contract for governmental services, where both parties are public agencies, pursuant to RCW 39.34.080 is entered into between Clark County, hereinafter referred to as County, and City of Vancouver, hereinafter referred to as City. County and City agree to all terms and conditions, exhibits, and requirements of this contract.

CITY OF VANCOUVER:

04/01/24
Date
Eric Holmes,
City Manager

CLARK COUNTY:

Kathleen Otto 04/02/24
Date
Kathleen Otto,
County Manager

CITY OF VANCOUVER:

04/01/24
Date
Jonathan Young,
City Attorney

APPROVED AS TO FORM ONLY:

Amanda Migchelbrink 04/01/24
Date
Amanda Migchelbrink,
Deputy Prosecuting Attorney

INTERLOCAL AGREEMENT

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BETWEEN CLARK COUNTY AND CITY OF VANCOUVER DESIGNATING CLARK COUNTY AS THE LEAD AGENCY FOR THE REVISION OF THE COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

Pursuant to Chapter 39.34 RCW and RCW 70A.205.040, this Interlocal Agreement (Agreement) is entered into between Clark County and the City of Vancouver, establishing the obligations of the Parties for the maintenance and adoption of the Clark County Comprehensive Solid Waste Management Plan (CSWMP).

WHEREAS, RCW 70A.205.010 and RCW 70A.300.007 assigns primary responsibility for solid waste and moderate risk waste planning to local government; and

WHEREAS, RCW 70A.205.040 and RCW 70A.300.350 require or authorize counties, in cooperation with the various cities located within such county, to prepare a coordinated comprehensive solid & hazardous waste management plan; and

WHEREAS, under RCW 70A.205.075, all solid waste management plans must be maintained in current condition by periodic updates that include the estimated long-range planning needs for solid waste handling facilities projected twenty years into the future and local governments may also periodically update their hazardous waste plans; and

WHEREAS, the City and the County (Parties), recognize that our citizens and businesses, public policymakers, and local government staff benefit from cooperative, coordinated, and shared approaches to managing the regional solid waste system; and

WHEREAS, RCW 70A.205.040(4)(c) outlines that cities may authorize the county to prepare a plan for the city's solid waste management for the inclusion in the CSWMP; and

WHEREAS, this Agreement serves to meet a common interest between Clark County and the Cities of Battle Ground, Camas, La Center, Ridgefield, Vancouver and Washougal and the Town of Yacolt designating Clark County as the lead agency responsible for maintaining and updating the CSWMP and is part of other related agreements and understandings.

WHEREAS, the Parties previously entered into a Solid Waste Interlocal Agreement on December 19, 2005 and have enjoyed a lengthy, productive, and effective working relationship in coordinating a wide range of solid waste disposal and collection issues; and

WHEREAS, in order to successfully develop, finance, and manage the Regional Solid Waste System, it is desirable that all waste generated in Clark County, including waste generated in incorporated cities and towns within the county, be disposed of through the Regional Solid Waste System and that the City and County agree that all waste generated in the corporate limits of the City shall be disposed of at Finley Buttes disposal site and transfer sites for the disposal of solid waste generated within the corporate limits of the City; and

WHEREAS, the Parties wish to adopt, maintain, and enforce minimum levels of service for residential source separation and collection of recyclables, including residential curbside recycling programs, multi-family recycling diversion programs, and residential yard waste/organics collection programs; and

WHEREAS, as part of this Agreement, the City agrees to authorize the County to prepare a plan for the City's solid waste management for inclusion in the CSWMP; and

WHEREAS, the Parties wish to continue working to develop and implement environmentally sound and cost-effective solid waste management programs including waste reduction and recycling diversion programs that reduce greenhouse gas emissions as appropriate from the disposed waste stream.

NOW, THEREFORE, in consideration of the mutual benefits and covenants contained herein, it is hereby agreed:

1. Purpose of agreement. The Parties intend this Agreement to provide for continued cooperation by both Parties in the updating of the CSWMP, implementation of that plan, and periodic updates or replacement of that plan, all in compliance with Chapters 70A.205 and 70A.300 RCW.

2. Public Ownership of Transfer Stations. In recognition that the Parties desire to continue to move toward a more regionalized and standardized solid waste management system.
   2.1. The COUNTY and CITY are committed to public ownership of the existing Central Transfer, West Van, and any future to-be-built transfer station(s) (excluding the existing transfer station in Washougal). These parties, along with any other municipal entity within the COUNTY that chooses to participate, will create a regional, multi-jurisdictional entity COUNTY successor to own and provide solid waste disposal and transfer services to those participating jurisdictions. As a statement of intent, both the COUNTY and CITY assert their strong preference for regional-entity ownership by a COUNTY successor, and that ownership by COUNTY or CITY is disfavored.
   2.2. In furtherance of this, the COUNTY and CITY shall negotiate the terms of an interlocal agreement pursuant to chapter 39.34 RCW that identifies a statutory mechanism for formation of the entity to be the COUNTY successor, a general initial framework for shared, representational governance by all participating jurisdictions, and establishes a transparent and accountable timeline for formation of the entity by December 31, 2029.
   2.3. In the event the COUNTY, CITY, and other participating jurisdictions are unable to form this anticipated regional entity by December 31, 2030, the COUNTY and CITY agree to meet and determine in good faith how one or both entities will temporarily own and govern the solid waste transfer facilities until such time as the regional entity can be formed and become operational, which is not anticipated to take longer than 24 months.

3. Authority and responsibilities.

   3.1. County shall act as lead agency for review of the CSWMP, and for preparation of the revised CSWMP, incorporating both solid waste and moderate risk waste elements.
   3.2. It is understood that the planning effort will be informed by the Solid Waste Advisory Committee (SWAC) and the Regional Solid Waste System Steering Committee (RSWSSC).
      3.2.1. The City, its staff and policymakers shall be partners and participants with the County and the SWAC and RSWSSC in the regularly scheduled plan review, update(s) and implementation and will be afforded opportunity to propose plan modifications.
   3.3. It is understood that the Washington State Department of Ecology (Ecology) will consider approval of the revised CSWMP only after all local jurisdictions participating in the planning process have adopted the revised CSWMP.
   3.4. The responsibilities of all parties in the management, planning, operations, and collection services of solid waste programs (including moderate risk waste) will be delineated in the adopted CSWMP.
   3.5. No separate entity is being created by this Agreement.

4. Limitations.
   4.1. Nothing in this Agreement shall supersede any authority granted to either the County or the City, or otherwise imply any control by one Party over the other Party.
   4.2. Nothing in this Agreement shall obligate either Party to provide personnel or assume operation and maintenance responsibilities for the other party's facilities or operations. Nor shall any provision of this agreement change in any manner the rules and restrictions under which either Party operates.

5. Dispute resolution. Any disputes arising under the terms of this agreement shall be resolved through a negotiated effort to reach consensus. The Parties may agree to mediation as part of such effort.

6. Plan development process. The Parties agree to the following process for development of, updates to, and replacement of the CSWMP.
   6.1. Revision process
      6.1.1. With input from SWAC and RSWSSC, the County will develop a draft and circulate that draft to Ecology and all cities within the Regional Solid Waste System. The County will make that draft available to the public for comments on their website.
      6.1.2. After good faith consideration of any responses from the public, cities and town, and

Ecology, County staff will prepare a final draft. After consultation with the city/town, SWAC, and RSWSSC, County will have the discretion to decide whether to change the final draft as a result of the responses.

6.1.3. Upon adoption, as defined herein, County will submit the adopted final draft to Ecology.

6.2. Amendments and updates

6.2.1. All proposed amendments will be evaluated per the process defined in the CSWMP.

6.2.2. Cities and towns that have signed the Agreement to join the Regional Solid Waste System may send possible amendments to the County for formal proposal. Upon such proposal, the County shall conduct the plan development process as outlined in this section.

6.2.3. The County shall prepare CSWMP updates as required by Chapter 70A.205 RCW, 70A.300 RCW, or by Ecology.

7. Plan adoption. If within 90 days of receiving the final draft CSWMP from the County, the City does not pass a resolution either adopting or disapproving the plan and delivers that resolution to the County, the City authorizes the County to include the City's solid waste plan prepared by the County in the CSWMP. All participating jurisdictions will be notified by the County when the CSWMP is adopted by County Council and when the CSWMP is approved by Ecology.

8. Term. Commencing on the effective date as outlined below in this Agreement, this Agreement shall continue for three years from the date of execution and may be extended upon mutual agreement and subject to City Council approval for an additional term. This Agreement may be rescinded, terminated as herein provided, or as outlined in the adopted subsequent plan. Any party hereto may withdraw and terminate its rights and obligations under this Agreement with the understanding that:

8.1. Notice of intent to withdraw and develop an independent plan shall be given to all parties, including SWAC and RSWSSC, and shall be provided with 12 months' notice; and

8.2. Prior to termination, a withdrawing City must have prepared and received approval from Ecology for their independent solid waste management plan; and

8.3. Each Party will remain responsible for its own costs, whether incurred during this Agreement or otherwise.

9. Effective date. This Agreement shall be effective upon its execution by the Clark County Council after execution by all other participating governments. The Parties agree that in the

event this Agreement is approved on or after the effective date, the terms and conditions hereof shall be construed as having been in full force and effect as of the effective date.

10. Entire agreement and modification. This Agreement embodies the entire agreement and understanding between the Parties hereto with respect to its subject matter and supersedes all prior agreements and understandings, whether written or oral, relating to its subject matter. No amendment or modification of this Agreement shall be valid unless made in writing and signed by each Party, following authorization by Vancouver's City Council.

11. Indemnification / Hold harmless. City shall defend, indemnify and hold County, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or resulting from the negligent acts, errors or omissions of City in performance of this Agreement, except for injuries and damages caused by the sole negligence of County. Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of City, its officers, officials, employees, and volunteers, City's liability, including the duty and cost to defend, hereunder shall be only to the extent of the City's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the City's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

12. Public Records Act. Notwithstanding the provisions of this Agreement to the contrary, to the extent any record, including any electronic, audio, paper or other media, is required to be kept or indexed as a public record in accordance with the Washington Public Records Act, RCW Chapter 42.56, as may hereafter be amended, each party agrees to maintain all records constituting public records and to produce or assist both parties in producing such records, within the time frames and parameters set forth in state law. Each party further agrees that upon receipt of any written public record request from the public, shall, within two business days, notify the other party of receipt of the request by providing a copy of the request to the other party's Public Records Officer.

13. Recording or public listing. The Parties agree that this Agreement, after full execution, either will be recorded with the Clark County Auditor or listed by subject on Clark County's website or

other electronically retrievable public source, as required by RCW 39.34.040.

14. Severability. If any provision of this Agreement is held invalid, the remainder would then continue to conform to the terms and requirements of applicable law.

INTERLOCAL AGREEMENT
HDC.2161
between
CLARK COUNTY
P.O. Box 9825, Vancouver, WA 98666
and
CITY OF WASHOUGAL
1701 C Street, Washougal, WA 98671

Project: Update to Comprehensive Solid Waste Management Plan
Contract Name: CCPH City of Washougal CSWMP Interlocal HDC.2161
Contract Period: Upon Execution-Ongoing

County Contacts		
Program	**Fiscal**	**Contract**
Joelle Loescher 360.397.8126 Joelle.Loescher@clark.wa.gov	Kayla Mobley 564.397.8235 Kayla.Mobley@clark.wa.gov	Holly Barnfather 360.949.6965 GCT@clark.wa.gov

City Contacts		
Program	**Fiscal**	**Contract**
Trevor Evers 360.835.8501 ext. 202 trevor.evers@cityofwashougal.us	Daniel Layer 360.835.8501 ext. 503 daniel.layer@cityofwashougal.us	Kelly Brown 360.835.2662 ext. 234 kelly.brown@cityofwashougal.us

This Contract for governmental services, where both parties are public agencies, pursuant to RCW 39.34.080 is entered into between Clark County, hereinafter referred to as County, and City of Washougal, hereinafter referred to as City. County and City agree to all terms and conditions, exhibits, and requirements of this contract.

CITY

David Scott 01/24/24
David Scott, City Manager Date

CLARK COUNTY

Kathleen Otto 01/25/24
Kathleen Otto, County Manager Date

CITY

Robert Zeinemann 01/24/24
Robert Zeinemann Date
City Attorney

APPROVED AS TO FORM ONLY

Amanda Migchelbrink 01/24/24
Amanda Migchelbrink Date
Deputy Prosecuting Attorney

INTERLOCAL AGREEMENT BETWEEN CLARK COUNTY AND CITIES OF BATTLE GROUND, CAMAS, LA CENTER, RIDGEFIELD, VANCOUVER, WASHOUGAL, AND TOWN OF YACOLT DESIGNATING CLARK COUNTY AS THE LEAD AGENCY FOR THE REVISION OF THE COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

Pursuant to Chapter 39.34 RCW and RCW 70A.205.040, this Interlocal Agreement (Agreement) is entered into between Clark County (County) and the City of Washougal (City), establishing the obligations of the Parties for the maintenance and adoption of the Clark County Comprehensive Solid Waste Management Plan (CSWMP).

WHEREAS RCW 70A.205.010 and RCW 70A.300.007 assigns primary responsibility for solid waste and moderate risk waste planning to local government; and

WHEREAS RCW 70A.205.040 and RCW 70A.300.350 require or authorize counties, in cooperation with the various cities located within such county, to prepare a coordinated comprehensive solid & hazardous waste management plan; and

WHEREAS, under RCW 70A.205.075, all solid waste management plans must be maintained in current condition by periodic updates that include the estimated long-range planning needs for solid waste handling facilities projected twenty years into the future and local governments may also periodically update their hazardous waste plans; and

WHEREAS, the City and the County (Parties), recognize that our citizens and businesses, public policymakers, and local government staff benefit from cooperative, coordinated, and shared approaches to managing the regional solid waste system; and

WHEREAS RCW 70A.205.040(4)(c) outlines that cities may authorize the county to prepare a plan for the city's solid waste management; and

WHEREAS, the Parties previously entered into a Solid Waste Interlocal Agreement on May 9, 2006, and have enjoyed a lengthy, productive, and effective working relationship in coordinating a wide range of solid waste disposal and collection issues; and

WHEREAS, in order to successfully develop, finance, and manage the Regional Solid Waste System, it is desirable that all waste generated in Clark County, including waste generated in incorporated cities and towns within the county, be disposed of through the Regional Solid Waste System and that the City authorizes the County to designate a disposal site(s) and transfer sites for the disposal of solid waste generated within the corporate limits of the City; and

WHEREAS the Parties wish to adopt, maintain, and enforce minimum levels of service for residential source separation and collection of recyclables, including residential curbside recycling programs, multi-family recycling programs, and residential yard waste collection programs; and

WHEREAS, as part of this Agreement, the City agrees to authorize the county to prepare a plan for the city's solid waste management for inclusion in the comprehensive county plan. If the City chooses not to participate fully in the planning process or to pass a resolution adopting the CSWMP, they agree to adopt the final version. If within 90 days of receiving the final draft from the County, a participating jurisdiction does not pass a resolution either adopting or disapproving the CSWMP and delivers that resolution to the County, the CSWMP will be considered adopted by that jurisdiction; and

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WHEREAS the Parties wish to continue working to develop and implement environmentally sound and cost-effective solid waste management programs including waste reduction and recycling programs that reduce greenhouse gas emissions as appropriate from the disposed waste stream.

NOW, THEREFORE, in consideration of the mutual benefits and covenants contained herein, it is hereby agreed:

1. Purpose of agreement. The Parties intend this Agreement to provide for continued cooperation by both parties in the updating of the CSWMP, implementation of that plan, and periodic updates or replacement of that plan, all in compliance with Chapters 70A.205 and 70A.300 RCW.

2. Incorporation of Recitals. The recitals set forth above are true and correct and are incorporated by reference as if fully set forth herein and made a part hereof.

3. Authority and responsibilities.
   - 3.1. County shall act as lead agency for review of the CSWMP, and for preparation of the revised CSWMP, incorporating both solid waste and moderate risk waste elements.
   - 3.2. It is understood that the planning effort will be informed by the Solid Waste Advisory Committee (SWAC) and the Regional Solid Waste System Steering Committee (RSWSSC).
   - 3.3. It is understood that the Washington State Department of Ecology (Ecology) will consider approval of the revised CSWMP only after all local jurisdictions participating in the planning process have adopted the revised CSWMP.
   - 3.4. The responsibilities of all parties in the management, planning, operations, and collection services of solid waste programs (including moderate risk waste) will be delineated in the adopted CSWMP.
   - 3.5. No separate entity is being created by this Agreement.

4. Limitations.
   - 4.1. Nothing in this agreement shall supersede any authority granted to either the County or the City, or otherwise imply any control by one Party over the other Party.
   - 4.2. Nothing in this agreement shall obligate either Party to provide personnel or assume operation and maintenance responsibilities for the other party's facilities or operations. Nor shall any provision of this agreement change in any manner the rules and restrictions under which either party operates.

5. Dispute resolution. Any disputes arising under the terms of this agreement shall be resolved through a negotiated effort to reach consensus. The Parties may agree to mediation as part of such effort.

6. Plan development process. The Parties agree to the following process for development of, updates to, and replacement of the CSWMP.
   6.1. Revision process
      6.1.1. With input from SWAC and RSWSSC, the County will develop a draft and circulate that draft to Ecology and all cities within the Clark County Regional Solid Waste System. The County will make that draft available to the public for comments on their website.
      6.1.2. After good faith consideration of any responses from the public, cities and town, and Ecology, County staff will prepare a final draft. After consultation with the city/town, SWAC, and RSWSSC, County will have the discretion to decide whether to change the final draft as a result of the responses.
      6.1.3. Upon adoption, as defined herein, County will submit the adopted final draft to Ecology.
   6.2. Amendments and updates
      6.2.1. All proposed amendments will be evaluated per the process defined in the CSWMP.
      6.2.2. Cities and towns that have signed the Agreement to join the Clark County Regional Solid Waste System may send possible amendments to the County for formal proposal. Upon such proposal, the County shall conduct the plan development process as outlined in this section.
      6.2.3. The County shall prepare CSWMP updates as required by Chapter 70A.205 RCW, 70A.300 RCW, or by Ecology.

7. Plan adoption. If within 90 days of receiving the final draft CSWMP from the County, a participating jurisdiction does not pass a resolution either adopting or disapproving the plan and delivers that resolution to the County, the CSWMP will be considered adopted by that jurisdiction. All participating jurisdictions will be notified by the County when the CSWMP is adopted and when the CSWMP is approved by Ecology.

8. Term. Commencing on the effective date as outlined below in this Agreement, this Agreement shall continue until rescinded, terminated as herein provided, or as outlined in the adopted subsequent plan. Any party hereto may withdraw and terminate its rights and obligations

under this Agreement with the understanding that:
   8.1. Notice of intent to withdraw and develop an independent plan shall be given to all parties, including SWAC and RSWSSC, and shall be provided with 12 months' notice; and
   8.2. Prior to termination, a withdrawing City must have prepared and received approval from Ecology for their independent solid waste management plan; and
   8.3. Termination will not absolve the City or County of responsibility for meeting financial and other obligations outstanding at the time of termination.

9. Effective date. This Agreement shall be effective upon its execution by the Clark County Council after execution by all other participating governments. The Parties agree that in the event this Agreement is approved on or after the effective date, the terms and conditions hereof shall be construed as having been in full force and effect as of the effective date.

10. Entire agreement and modification. This Agreement embodies the entire agreement and understanding between the Parties hereto with respect to its subject matter and supersedes all prior agreements and understandings, whether written or oral, relating to its subject matter. No amendment or modification of this Agreement shall be valid unless made in writing and signed by each of the Parties.

11. Indemnification / Hold harmless. City shall defend, indemnify, and hold County, its officers, officials, employees, and volunteers harmless from any and all claims, injuries, damages, losses, or suits including attorney fees, arising out of or resulting from the negligent acts, errors or omissions of City in performance of this Agreement, except for injuries and damages caused by the sole negligence of County. Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of City, its officers, officials, employees, and volunteers, City's liability, including the duty and cost to defend, hereunder shall be only to the extent of the City's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the City's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement. County shall defend, indemnify, and hold City, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising

out of or resulting from the negligent acts, errors or omissions of County in performance of this Agreement, except for injuries and damages caused by the sole negligence of City. Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of County, its officers, officials, employees, and volunteers, County's liability, including the duty and cost to defend, hereunder shall be only to the extent of the County's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the County's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

12. Public Records Act. Notwithstanding the provisions of this Agreement to the contrary, to the extent any record, including any electronic, audio, paper or other media, is required to be kept or indexed as a public record in accordance with the Washington Public Records Act, RCW Chapter 42.56, as may hereafter be amended, each party agrees to maintain all records constituting public records and to produce or assist both parties in producing such records, within the time frames and parameters set forth in state law. Each party further agrees that upon receipt of any written public record request from the public, shall, within two business days, notify the other party of receipt of the request by providing a copy of the request to the other party's Public Records Officer.

13. Recording or public listing. The Parties agree that this Agreement, after full execution, either will be recorded with the Clark County Auditor or listed by subject on Clark County's website or other electronically retrievable public source, as required by RCW 39.34.040.

14. Severability. If any provision of this Agreement is held invalid, the remainder would then continue to conform to the terms and requirements of applicable law.

INTERLOCAL AGREEMENT
HDC.2162
between
CLARK COUNTY
P.O. Box 9825, Vancouver, WA 98666
and
TOWN OF YACOLT
PO Box 160, Yacolt, WA 98675

Project: Update to Comprehensive Solid Waste Management Plan
Contract Name: CCPH Town of Yacolt CSWMP Interlocal HDC.2162
Contract Period: Upon Execution-Ongoing

County Contacts		
Program	**Fiscal**	**Contract**
Joelle Loescher 360.397.8126 Joelle.Loescher@clark.wa.gov	Kayla Mobley 564.397.8235 Kayla.Mobley@clark.wa.gov	Holly Barnfather 360.949.6965 CntyHealthGrantContract@clark.wa.gov

Town Contacts		
Program	**Fiscal**	**Contract**
Sean LaBarbera 360.553-0013 pwd@townofyacolt.com	Stephanie Fields 360.686-3922 clerk@townofyacolt.com	Katelyn Listek 360.686-3922 mayorlistek@townofyacolt.com

This Contract for governmental services, where both parties are public agencies, pursuant to RCW 39.34.080 is entered into between Clark County, hereinafter referred to as "County", and the Town of Yacolt, hereinafter referred to as "Town". County and Town agree to all terms and conditions, exhibits, and requirements of this contract.

TOWN OF YACOLT:

Katelyn Listek, Mayor

Date: 10/9/2023

CLARK COUNTY:

Kathleen Otto

Kathleen Otto, County Manager

Date: 10/12/23

TOWN OF YACOLT:

David Ridenour, Town Attorney

Date: 10/9/23

APPROVED AS TO FORM ONLY:

Amanda Migchelbrink

Amanda Migchelbrink,
Deputy Prosecuting Attorney

Date: 10/11/23

INTERLOCAL AGREEMENT
BETWEEN CLARK COUNTY AND CITIES OF BATTLE GROUND, CAMAS, LA CENTER, RIDGEFIELD, VANCOUVER, WASHOUGAL, AND TOWN OF YACOLT
DESIGNATING CLARK COUNTY AS THE LEAD AGENCY FOR THE REVISION OF THE COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

Pursuant to Chapter 39.34 RCW and RCW 70A.205.040, this Interlocal Agreement (Agreement) is entered into between Clark County and the Town of Yacolt, establishing the obligations of the Parties for the maintenance and adoption of the Clark County Comprehensive Solid Waste Management Plan (CSWMP).

WHEREAS, RCW 70A.205.010 and RCW 70A.300.007 assigns primary responsibility for solid waste and moderate risk waste planning to local government; and

WHEREAS, RCW 70A.205.040 and RCW 70A.300.350 require or authorize counties, in cooperation with the various cities located within such county, to prepare a coordinated comprehensive solid & hazardous waste management plan; and

WHEREAS, under RCW 70A.205.075, all solid waste management plans must be maintained in current condition by periodic updates that include the estimated long-range planning needs for solid waste handling facilities projected twenty years into the future and local governments may also periodically update their hazardous waste plans; and

WHEREAS, the Town and the County (Parties), recognize that our citizens and businesses, public policymakers, and local government staff benefit from cooperative, coordinated, and shared approaches to managing the regional solid waste system; and

WHEREAS, RCW 70A.205.040(4)(c) outlines that cities may authorize the county to prepare a plan for the Town's solid waste management; and

WHEREAS, the Parties previously entered into a Solid Waste Interlocal Agreement on May 9, 2006 and have enjoyed a lengthy, productive, and effective working relationship in coordinating a wide range of solid waste disposal and collection issues; and

WHEREAS, in order to successfully develop, finance, and manage the Regional Solid Waste System, it is desirable that all waste generated in Clark County, including waste generated in incorporated cities and towns within the county, be disposed of through the Regional Solid Waste System and that the Town authorizes the County to designate a disposal site(s) and transfer sites for the disposal of solid waste generated within the corporate limits of the Town; and

WHEREAS, the Parties wish to adopt, maintain, and enforce minimum levels of service for residential source separation and collection of recyclables, including residential curbside recycling programs, multi-family recycling programs, and residential yard waste collection programs; and

WHEREAS, as part of this Agreement, the Town agrees to authorize the county to prepare a plan for the Town's solid waste management for inclusion in the comprehensive county plan. If the Town chooses not to participate fully in the planning process or to pass a resolution adopting the CSWMP, they agree to adopt the final version. If within 90 days of receiving the final draft from the County, a participating jurisdiction does not pass a resolution either adopting or disapproving the CSWMP and delivers that resolution to the County, the CSWMP will be considered adopted by that jurisdiction; and

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WHEREAS, the Parties wish to continue working to develop and implement environmentally sound and cost-effective solid waste management programs including waste reduction and recycling programs that reduce greenhouse gas emissions as appropriate from the disposed waste stream.

NOW, THEREFORE, in consideration of the mutual benefits and covenants contained herein, it is hereby agreed:

1. Purpose of agreement. The Parties intend this Agreement to provide for continued cooperation by both parties in the updating of the CSWMP, implementation of that plan, and periodic updates or replacement of that plan, all in compliance with Chapters 70A.205 and 70A.300 RCW.

2. Authority and responsibilities.
   - 2.1. County shall act as lead agency for review of the CSWMP, and for preparation of the revised CSWMP, incorporating both solid waste and moderate risk waste elements.
   - 2.2. It is understood that the planning effort will be informed by the Solid Waste Advisory Committee (SWAC) and the Regional Solid Waste System Steering Committee (RSWSSC).
   - 2.3. It is understood that the Washington State Department of Ecology (Ecology) will consider approval of the revised CSWMP only after all local jurisdictions participating in the planning process have adopted the revised CSWMP.
   - 2.4. The responsibilities of all parties in the management, planning, operations, and collection services of solid waste programs (including moderate risk waste) will be delineated in the adopted CSWMP.
   - 2.5. No separate entity is being created by this Agreement.

3. Limitations.
   - 3.1. Nothing in this agreement shall supersede any authority granted to either the County or the Town, or otherwise imply any control by one Party over the other Party.
   - 3.2. Nothing in this agreement shall obligate either Party to provide personnel or assume operation and maintenance responsibilities for the other party's facilities or operations. Nor shall any provision of this agreement change in any manner the rules and restrictions under which either party operates.

4. Dispute resolution. Any disputes arising under the terms of this agreement shall be resolved through a negotiated effort to reach consensus. The Parties may agree to mediation as part of such effort.

5. Plan development process. The Parties agree to the following process for development of, updates to, and replacement of the CSWMP.

5.1. Revision process

5.1.1. With input from SWAC and RSWSSC, the County will develop a draft and circulate that draft to Ecology and all cities within the Clark County Regional Solid Waste System. The County will make that draft available to the public for comments on their website.

5.1.2. After good faith consideration of any responses from the public, cities and town, and Ecology, County staff will prepare a final draft. After consultation with the Town/town, SWAC, and RSWSSC, County will have the discretion to decide whether to change the final draft as a result of the responses.

5.1.3. Upon adoption, as defined herein, County will submit the adopted final draft to Ecology.

5.2. Amendments and updates

5.2.1. All proposed amendments will be evaluated per the process defined in the CSWMP.

5.2.2. Cities and towns that have signed the Agreement to join the Clark County Regional Solid Waste System may send possible amendments to the County for formal proposal. Upon such proposal, the County shall conduct the plan development process as outlined in this section.

5.2.3. The County shall prepare CSWMP updates as required by Chapter 70A.205 RCW, 70A.300 RCW, or by Ecology.

6. Plan adoption. If within 90 days of receiving the final draft CSWMP from the County, a participating jurisdiction does not pass a resolution either adopting or disapproving the plan and delivers that resolution to the County, the CSWMP will be considered adopted by that jurisdiction. All participating jurisdictions will be notified by the County when the CSWMP is adopted and when the CSWMP is approved by Ecology.

7. Term. Commencing on the effective date as outlined below in this Agreement, this Agreement shall continue until rescinded, terminated as herein provided, or as outlined in the adopted subsequent plan. Any party hereto may withdraw and terminate its rights and obligations under this Agreement with the understanding that:

7.1. Notice of intent to withdraw and develop an independent plan shall be given to all parties, including SWAC and RSWSSC, and shall be provided with 12 months' notice; and

7.2. Prior to termination, a withdrawing Town must have prepared and received approval from Ecology for their independent solid waste management plan; and

7.3. Termination will not absolve the Town or County of responsibility for meeting financial and other obligations outstanding at the time of termination.

8. Effective date. This Agreement shall be effective upon its execution by the Clark County Council after execution by all other participating governments. The Parties agree that in the event this Agreement is approved on or after the effective date, the terms and conditions hereof shall be construed as having been in full force and effect as of the effective date.

9. Entire agreement and modification. This Agreement embodies the entire agreement and understanding between the Parties hereto with respect to its subject matter and supersedes all prior agreements and understandings, whether written or oral, relating to its subject matter. No amendment or modification of this Agreement shall be valid unless made in writing and signed by each of the Parties.

10. Indemnification / Hold harmless. Town shall defend, indemnify and hold County, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or resulting from the negligent acts, errors or omissions of Town in performance of this Agreement, except for injuries and damages caused by the sole negligence of County. Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of Town, its officers, officials, employees, and volunteers, Town's liability, including the duty and cost to defend, hereunder shall be only to the extent of the Town's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Town's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

11. Public Records Act. Notwithstanding the provisions of this Agreement to the contrary, to the extent any record, including any electronic, audio, paper or other media, is required to be kept or indexed as a public record in accordance with the Washington Public Records Act, RCW Chapter 42.56, as may hereafter be amended, each party agrees to maintain all records

constituting public records and to produce or assist both parties in producing such records, within the time frames and parameters set forth in state law. Each party further agrees that upon receipt of any written public record request from the public, shall, within two business days, notify the other party of receipt of the request by providing a copy of the request to the other party's Public Records Officer.

12. Recording or public listing. The Parties agree that this Agreement, after full execution, either will be recorded with the Clark County Auditor or listed by subject on Clark County's website or other electronically retrievable public source, as required by RCW 39.34.040.

13. Severability. If any provision of this Agreement is held invalid, the remainder would then continue to conform to the terms and requirements of applicable law.

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INTERLOCAL AGREEMENT
HDC.2157
between
CLARK COUNTY
P.O. Box 9825, Vancouver, WA 98666
and
CITY OF CAMAS
616 NE 4th Avenue, Camas, WA 98607

Project: Update to Comprehensive Solid Waste Management Plan
Contract Name: CCPH City of Camas CSWMP Interlocal HDC.2157
Contract Period: Upon Execution-Ongoing

County Contacts		
Program	**Fiscal**	**Contract**
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City Contacts		
Program	**Fiscal**	**Contract**
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This Contract for governmental services, where both parties are public agencies, pursuant to RCW 39.34.080 is entered into between Clark County, hereinafter referred to as County, and City of Camas, hereinafter referred to as City. County and City agree to all terms and conditions, exhibits, and requirements of this contract.

CITY OF CAMAS:

Steven C. Hogan, Mayor Date

Attest:

City Clerk

APPROVED AS TO FORM ONLY:

By: Shawn MacPherson, City Attorney

CLARK COUNTY:

Kathleen Otto, County Manager Date

APPROVED AS TO FORM ONLY:

Amanda Migchelbrink Date
Deputy Prosecuting Attorney

INTERLOCAL AGREEMENT BETWEEN CLARK COUNTY AND CITIES OF BATTLE GROUND, CAMAS, LA CENTER, RIDGEFIELD, VANCOUVER, WASHOUGAL, AND TOWN OF YACOLT DESIGNATING CLARK COUNTY AS THE LEAD AGENCY FOR THE REVISION OF THE COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

Pursuant to Chapter 39.34 RCW and RCW 70A.205.040, this Interlocal Agreement (Agreement) is entered into between Clark County and the City of Camas, establishing the obligations of the Parties for the maintenance and adoption of the Clark County Comprehensive Solid Waste Management Plan (CSWMP).

WHEREAS, RCW 70A.205.010 and RCW 70A.300.007 assigns primary responsibility for solid waste and moderate risk waste planning to local government; and

WHEREAS, RCW 70A.205.040 and RCW 70A.300.350 require or authorize counties, in cooperation with the various cities located within such county, to prepare a coordinated comprehensive solid & hazardous waste management plan; and

WHEREAS, under RCW 70A.205.075, all solid waste management plans must be maintained in current condition by periodic updates that include the estimated long range planning needs for solid waste handling facilities projected twenty years into the future and local governments may also periodically update their hazardous waste plans; and

WHEREAS, the City and the County (Parties), recognize that our citizens and businesses, public policymakers, and local government staff benefit from cooperative, coordinated, and shared approaches to managing the regional solid waste system; and

WHEREAS, RCW 70A.205.040(4)(c) outlines that cities may authorize the county to prepare a plan for the city's solid waste management; and

WHEREAS, the Parties previously entered into a Solid Waste Interlocal Agreement on May 9, 2006 and have enjoyed a lengthy, productive, and effective working relationship in coordinating a wide range of solid waste disposal and collection issues; and

WHEREAS, in order to successfully develop, finance, and manage the Regional Solid Waste System, it is desirable that all waste generated in Clark County, including waste generated in incorporated cities and towns within the county, be disposed of through the Regional Solid Waste System and that the City authorizes the County to designate a disposal site(s) and transfer sites for the disposal of solid waste generated within the corporate limits of the City; and

WHEREAS, the Parties wish to adopt, maintain, and enforce minimum levels of service for residential source separation and collection of recyclables, including residential curbside recycling programs, multi-family recycling programs, and residential yard waste collection programs; and

WHEREAS, as part of this Agreement, the City agrees to authorize the county to prepare a plan for the city's solid waste management for inclusion in the comprehensive county plan. If the City chooses not to participate fully in the planning process or to pass a resolution adopting the CSWMP, they agree to adopt the final version. If within 90 days of receiving the final draft from the County, a participating jurisdiction does not pass a resolution either adopting or disapproving the CSWMP and delivers that resolution to the County, the CSWMP will be considered adopted by that jurisdiction; and

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WHEREAS, the Parties wish to continue working to develop and implement environmentally sound and cost-effective solid waste management programs including waste reduction and recycling programs that reduce greenhouse gas emissions as appropriate from the disposed waste stream.

NOW, THEREFORE, in consideration of the mutual benefits and covenants contained herein, it is hereby agreed:

1. Purpose of agreement. The Parties intend this Agreement to provide for continued cooperation by both parties in the updating of the CSWMP, implementation of that plan, and periodic updates or replacement of that plan, all in compliance with Chapters 70A.205 and 70A.300 RCW.

2. Authority and responsibilities.
   - 2.1. County shall act as lead agency for review of the CSWMP, and for preparation of the revised CSWMP, incorporating both solid waste and moderate risk waste elements.
   - 2.2. It is understood that the planning effort will be informed by the Solid Waste Advisory Committee (SWAC) and the Regional Solid Waste System Steering Committee (RSWSSC).
   - 2.3. It is understood that the Washington State Department of Ecology (Ecology) will consider approval of the revised CSWMP only after all local jurisdictions participating in the planning process have adopted the revised CSWMP.
   - 2.4. The responsibilities of all parties in the management, planning, operations, and collection services of solid waste programs (including moderate risk waste) will be delineated in the adopted CSWMP.
   - 2.5. No separate entity is being created by this Agreement.

3. Limitations.
   - 3.1. Nothing in this agreement shall supersede any authority granted to either the County or the City, or otherwise imply any control by one Party over the other Party.
   - 3.2. Nothing in this agreement shall obligate either Party to provide personnel or assume operation and maintenance responsibilities for the other party's facilities or operations. Nor shall any provision of this agreement change in any manner the rules and restrictions under which either party operates.

4. Dispute resolution. Any disputes arising under the terms of this agreement shall be resolved through a negotiated effort to reach consensus. The Parties may agree to mediation as part of such effort.

5. Plan development process. The Parties agree to the following process for development of, updates to, and replacement of the CSWMP.

5.1. Revision process

5.1.1. With input from SWAC and RSWSSC, the County will develop a draft and circulate that draft to Ecology and all cities within the Clark County Regional Solid Waste System. The County will make that draft available to the public for comments on their website.

5.1.2. After good faith consideration of any responses from the public, cities and town, and Ecology, County staff will prepare a final draft. After consultation with the city/town, SWAC, and RSWSSC, County will have the discretion to decide whether to change the final draft as a result of the responses.

5.1.3. Upon adoption, as defined herein, County will submit the adopted final draft to Ecology.

5.2. Amendments and updates

5.2.1. All proposed amendments will be evaluated per the process defined in the CSWMP.

5.2.2. Cities and towns that have signed the Agreement to join the Clark County Regional Solid Waste System may send possible amendments to the County for formal proposal. Upon such proposal, the County shall conduct the plan development process as outlined in this section.

5.2.3. The County shall prepare CSWMP updates as required by Chapter 70A.205 RCW, 70A.300 RCW, or by Ecology.

6. Plan adoption. If within 90 days of receiving the final draft CSWMP from the County, a participating jurisdiction does not pass a resolution either adopting or disapproving the plan and delivers that resolution to the County, the CSWMP will be considered adopted by that jurisdiction. All participating jurisdictions will be notified by the County when the CSWMP is adopted and when the CSWMP is approved by Ecology.

7. Term. Commencing on the effective date as outlined below in this Agreement, this Agreement shall continue until rescinded, terminated as herein provided, or as outlined in the adopted subsequent plan. Any party hereto may withdraw and terminate its rights and obligations under this Agreement with the understanding that:

7.1. Notice of intent to withdraw and develop an independent plan shall be given to all parties, including SWAC and RSWSSC, and shall be provided with 12 months' notice; and

7.2. Prior to termination, a withdrawing City must have prepared and received approval from Ecology for their independent solid waste management plan; and

7.3. Termination will not absolve the City or County of responsibility for meeting financial and other obligations outstanding at the time of termination.

8. Effective date. This Agreement shall be effective upon its execution by the Clark County Council after execution by all other participating governments. The Parties agree that in the event this Agreement is approved on or after the effective date, the terms and conditions hereof shall be construed as having been in full force and effect as of the effective date.

9. Entire agreement and modification. This Agreement embodies the entire agreement and understanding between the Parties hereto with respect to its subject matter and supersedes all prior agreements and understandings, whether written or oral, relating to its subject matter. No amendment or modification of this Agreement shall be valid unless made in writing and signed by each of the Parties.

10. Indemnification / Hold harmless. City shall defend, indemnify and hold County, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or resulting from the negligent acts, errors or omissions of City in performance of this Agreement, except for injuries and damages caused by the sole negligence of County. Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of City, its officers, officials, employees, and volunteers, City's liability, including the duty and cost to defend, hereunder shall be only to the extent of the City's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the City's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

11. Public Records Act. Notwithstanding the provisions of this Agreement to the contrary, to the extent any record, including any electronic, audio, paper or other media, is required to be kept or indexed as a public record in accordance with the Washington Public Records Act, RCW Chapter 42.56, as may hereafter be amended, each party agrees to maintain all records

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constituting public records and to produce or assist both parties in producing such records, within the time frames and parameters set forth in state law. Each party further agrees that upon receipt of any written public record request from the public, shall, within two business days, notify the other party of receipt of the request by providing a copy of the request to the other party's Public Records Officer.

12. Recording or public listing. The Parties agree that this Agreement, after full execution, either will be recorded with the Clark County Auditor or listed by subject on Clark County's website or other electronically retrievable public source, as required by RCW 39.34.040.

13. Severability. If any provision of this Agreement is held invalid, the remainder would then continue to conform to the terms and requirements of applicable law.

E

APPENDIX E:
Solid Waste Management Plan Adopting Resolution

To be added upon finalization.

F

APPENDIX F: Regulations governing the management of solid waste

Legislation	Description
Architectural Paint Stewardship Program ***Chapter 70A.515 RCW***	Requires the establishment of a product stewardship program for recycling leftover paint in Washington, funded by a small fee added to the sale of new paint.
Batteries – Environmental Stewardship ***Chapter 70A.555 RCW***	Outlines requirements for proper handling, recycling, and end-of-life management of used batteries.
Biosolids Management ***Chapter 173-308 WAC***	Outlines requirements for managing the disposal of biosolids.
Clark County Code – Solid Waste Management ***Chapter 24.12***	Regulates and control solid waste management within Clark County.
Clark County Code - Shoreline Master Program ***Chapter 40.460***	Governs activities on and near lakes, streams, and rivers in Clark County.
Clark County Code - Solid Waste Disposal ***Chapter 9.32***	Regulation for county designated transfer stations; removal of recyclables from containers and litter control.
Clean Air Act ***42 U.S.C. §7401 et seq. (1970)***	Regulates air pollutant emissions; establishes emissions standards for solid waste landfills. Includes regulations concerning the safe management of asbestos and asbestos containing material to protect public health.
Clean Water Act ***33 U.S.C. §1251 et seq. (1972)***	Regulates discharges to waters through: (a) the NPDES permit program and (b) pretreatment standards that regulate discharge to publicly owned wastewater treatment facilities.
Comprehensive Procurement Guideline for Products Containing Recovered Materials ***40 CFR Part 247***	Procurement requirements for government agencies using federal funds. Including requirements for procurement of construction materials containing recycled content.
Consumer Product Safety Commission (CPSC) ***16 CFR Part 1305*** and ***16 CFR 1304***.	Legislation including regulations on the use and disposal of asbestos and asbestos containing material.
Criteria for Municipal Solid Waste Landfills ***Chapter 173-351 WAC***	Establishes criteria for municipal solid waste landfills.
Dangerous Waste Regulations ***Chapter 173-303 WAC***	Regulation of dangerous and extremely dangerous wastes. Includes standards for the handling, disposal, designation, treatment, reporting and monitoring of dangerous waste.
Department of Labor and Industries ***Title 296 WAC***	Various state codes for workplace safety rules on toxic exposures to arsenic, lead, hazardous waste, and other toxins.
Drug Take-Back Program ***Chapter 69.48 RCW***	Requires pharmaceutical manufacturers to fund a safe system for the collection and disposal of unused, unwanted, and expired medicines in Washington.
Electronic Product Recycling ***Chapter 70A.500 RCW***	Requires a manufacturer-funded recycling program for covered electronic products. Products include televisions, computers, monitors, tablets, portable DVD players, E-readers and laptops.

Legislation	Description
Endangered Species Act (ESA) ***16 U.S.C. §1531 et seq. (1973)***	A federal law designed to protect and promote the recovery of plants and animals in danger of becoming extinct.
Federal Asbestos Requirements ***40 CFR Part 61 Subpart M***	Regulations concerning the safe management of asbestos and asbestos containing material to protect public health.
General Regulations for Air Pollution Sources ***Chapter 173-400 WAC***	General regulations for air pollution sources. Includes commercial and industrial solid waste incineration requirements.
EPA Administered Permit Programs: National Pollutant Discharge Elimination System (NPDES) ***40 CFR Part 122***	Washington NPDES permits are issued by Ecology to regulate and monitor businesses and municipalities that discharge wastewater to prevent pollution of surface water, stormwater, and groundwater.
Hazardous Substance Tax - Model Toxics Control Act ***Chapter 82.21 RCW***	Authorizes and outlines the rules for taxation of hazardous substances.
Hazardous Waste Cleanup - Model Toxics Control Act ***Chapter 70A.350 RCW***	Requires local government to prepare and implement a plan for the management of hazardous waste, including specific elements for collections and public education. Funds and directs the investigation, cleanup, and prevention of sites that are contaminated by hazardous substances.
Hazardous Waste Management Act ***Chapter 70A.300 RCW***	Requires local government to prepare and implement a plan for the management of hazardous waste, including specific elements for collections and public education.
Incinerator Ash Residue ***Chapter 70A.315 RCW***	Requirements for incinerator ash handling and disposal.
Interlocal Cooperation Act ***Chapter 39.34 RCW***	Allows local government agencies to cooperate with other localities through mutual agreement.
Joint Municipality Utility Services ***Chapter 39.106 RCW***	Aims to improve the ability of local government utilities to plan, finance, construct, acquire, maintain, operate, and provide facilities and utility services to the public, and to reduce costs and improve the benefits, efficiency, and quality of utility services.
Landfill -Methane Emissions ***Chapter 70A.540 RCW***	Makes methane emission monitoring and capture requirements stricter at certain landfills.
Residential Property Renovation ***40 CFR Part 745, Subpart E***	An EPA rule requiring certification in lead-safe work practices for companies performing construction, demolition, renovation, painting or other work on buildings and homes with lead- based paint.
Local Solid Waste Financial Assistance ***Chapter 173-312 WAC***	Outlines the procedure for and limitation of the local solid waste financial assistance grant.
Mercury-Containing and Rechargeable Battery Management Act ***Public Law 104-142***	Federal legislation setting requirements for the safe manufacturing and recycling of batteries, with emphasis on lead-acid battery recycling and phasing out production of batteries containing mercury.

Legislation	Description
Mercury-Containing Lights — Proper Disposal ***Chapter 70A.505 RCW***	Establishment of a product stewardship program for recycling mercury-containing lights.
Metropolitan Municipal Corporations ***Chapter 35.58 RCW***	Enables cities and counties to act jointly to ensure essential services with the growth and development of metropolitan areas.
Minimum Functional Standards for Solid Waste Handling ***Chapter 173-304 WAC***	Regulations for solid waste handling facilities existing prior to 2/10/03.
Miscellaneous Provisions ***RCW 35.21.120 through RCW 35.21.157***	Regulates how cities and counties contract for solid waste services and how they generate revenues to fund solid waste management activities.
Moderate Risk Waste Handling ***WAC 173-350-360***	Standards for collection and transportation of moderate risk waste, including permitting requirements.
Motor Freight Carriers ***Chapter 81.80 RCW***	Outlines requirements for collection and transport of recyclable materials from nonresidential generators; regulated by WUTC.
National Emission Standards for Hazardous Air Pollutants (NESHAP) ***40 CFR Part 61, Subpart M***	Legislation including regulations on the use and disposal of asbestos and asbestos containing material.
Noxious Weeds Control ***Chapter 17.10 RCW***	Rules relating to the control of noxious weeds.
Reuse and Recycling ***ORS Chapter 459A***	As Clark County uses a solid waste disposal facility located in Oregon, we must meet the applicable Oregon recycling requirements.
Pollution Prevention Act ***42 USC § 13101 et seq. (1990)***	Legislature directing Ecology to establish a source pollution reduction program (now known as Pollution Prevention Assistance).
Recyclable Materials – Transporter and Facility Requirements ***Chapter 173-345 WAC***	Rules for businesses that transport recyclable materials from commercial or industrial generators that are required to have a common carrier permit from the WUTC.
Resource Conservation and Recovery Act (RCRA) ***42 U.S.C. § 6901 et seq. (1976)***	Federal law establishing the national hazardous waste management program, replacing earlier solid waste acts. RCRA sets hazardous waste management standards that states must meet or exceed.
Solid Waste Collection Companies ***Chapter 81.77 RCW***	State legislation directing the WUTC to supervise and regulate private solid waste collection companies. This includes issuance of regulated carrier permits.
Solid waste disposal district—Powers—Restrictions—Fees ***RCW 36.58.130***	Gives authority to counties to impose fees upon solid waste collection services.

Legislation	Description
Solid Waste — General Provisions ***ORS 340-93***	Regulates solid waste in the state of Oregon. Outlines requirement that all jurisdictions that use the Oregon waste system must adhere to Oregon laws. The standards are enforced by the Oregon Department of Environmental Quality (DEQ).
Solid Waste Handling Standards ***Chapter 173-350 WAC***	Establishing minimal performance standards for proper handling and disposal of solid waste. Identifying functions necessary to assure effective solid waste handling programs at state and local levels. Adopted under the authority of chapter 70A.205 RCW.
Solid Waste Management — Reduction and Recycling ***Chapter 70A.205 RCW***	Solid waste legislation including requirements for inert waste landfills, county solid waste management plans, WUTC assessments of rates, solid waste permits, requirements for recycling of construction aggregate, and more.
Solid Waste and/or Refuse Collection Companies ***Chapter 480-70 WAC***	State legislation for the enforcement of chapter 81.77 RCW, and establishment of various fair practice and safety standards for solid waste collection companies. Includes exempt operations.
Southwest Clean Air Agency (SWCAA) ***SWCAA-425, SWCAA 476, SWCAA 490, SWCAA 491***	SWCAA rules for asbestos control in demolition and renovation projects; outdoor burning; and emissions of volatile organic compounds and gasoline vapors. Regulations concerning the safe management of asbestos and asbestos containing material to protect public health.
Standards for Universal Waste Management ***40 CFR Part 273***	Streamlines regulation of certain hazardous/universal wastes including batteries, pesticides, mercury-containing equipment, lamps, and aerosol cans.
Standards for Universal Waste Management ***WAC 173-303-573***	Establishing Washington standards for universal waste management. Defines batteries, mercury- containing equipment, and lamps as universal wastes.
Standards for the Use of Disposal of Sewage Sludge ***40 CFR Part 503***	Regulations and establishes classifications and handling requirements of sewage sludges.
State Environmental Policy Act (SEPA) ***Chapter 43.21C RCW***	An act requiring environmental impact assessments associated with government decisions, including construction of public facilities.
Toxic Substances Control Act (TSCA) ***15 U.S.C. §2601 et seq. (1976)***	An act addressing the production, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.
Used Oil Recycling Act ***Chapter 70A.224 RCW***	Requires local government to include used motor oil recycling elements to hazardous waste management plans and activities. Includes requirements the collection, recycling, and reuse of used oil.
Vancouver Municipal Codes – Collection of Recyclable Materials ***Chapter 5.62***	Regulates the collection of recyclable materials in the City of Vancouver.

Legislation	Description
Vancouver Municipal Codes – Garbage Disposal ***Chapter 6.12***	Regulates garbage disposal in the City of Vancouver.
Vehicle Battery Disposal ***RCW 70A.205.505*** through ***70A.205.535.***	Legislation requiring recycling of lead-acid batteries, establishing the core charge, and outlining requirements for lead-acid battery retailers.
Washington Organics Management Law ***HB-1799***	Requires diversion of organic materials away from landfill disposal and towards food rescue program and organics management. Being formally embedded into RCW 70A.205
Waste Reduction ***Chapter 70A.214 RCW***	Outlines public and private efforts to focus on reducing the generation of waste.
Waste Reduction, Recycling, and Model Litter Control Act ***Chapter 70A.200 RCW***	Delegates authority to accomplish litter control, increase waste reduction, and stimulate all components of recycling and composting.

G

APPENDIX G: Operating, non-operating, abandoned, and closed disposal sites

Closed and abandoned landfills litter the state and pose potential risks to human health and the environment. The following is an inventory of the permitted, operating, abandoned, and closed disposal sites in Clark County, WA. This inventory is limited to the historical information available; accuracy is not guaranteed. **The rows in bold are actively monitored by the Clark County Solid Waste Enforcement program.**

Landfill name	Operations	Location	Comments
79th Street Landfill (Hallstrom Landfill)	**to 1989**	**78th St. east of 94th Ave.**	**Clarifier solids (Boise Cascade) and CDL - including tires. Currently under post-closure permit through CCPH. Gas collection and groundwater monitoring.**
Al Angelo's Landfill	late 1960s	NE 18th St., near Evergreen High School	None
Alcoa-Vancouver	Unknown	5701 NW Lower River Road	***Cleanup complete. Active O&M/ monitoring***
Allied Chemical Corporation (General Chemical Corp Vancouver Works)	Unknown	West 26th St.	***Awaiting cleanup***
Bill Fleming site	Unknown	5600 NE 78th St.	None
Bridges Dump site	Unknown	4200 NE 62nd Ave.	None
Camas Landfill	1920s to 1950s	Near Camas High School	Residential and industrial waste
Carl L. Meyer site	Unknown	2818 NE Cherry Road	None
Cherry Grove Landfill	1963 to 1975	NE 249th St. near NE 92nd Ave.	Originally closed in 1970 by order of Southwest Washington Health District. ***No further action.***
Circle "C" Landfill	**to 1990**	**31313 NW Paradise Park Road, Ridgefield**	**Closed limited purpose landfill. Currently under post-closure permit through CCPH. Gas collection and groundwater monitoring through 2022.**
Clark County Landfill I	1920s to 1940s	NE 192nd Ave. near SE11th St.	Filled old gravel pit
Clark County Landfills II and III	mid 1970s	SE15th St. & SE164th Ave	Filled two gravel pits
Columbia Pest Control Dump	Unknown	8405 Calef Road	Site reported to Ecology as potential hazardous substances site
County Dump site	Unknown	Hazel Dell Road	Waste dumped in a large pit
Dewils Industries Dump	Unknown	6307 NE 127th Ave.	None
Dietrich Demolition Pit	1950s to 1992	11034 NE 117th Ave.	Operator ceased accepting waste in March 1992. Closed CDL Landfill
Doyle Gravel Pit	Unknown	NE 142nd Ave.	None
English Pit Landfill	1940 to 1979	192 NE 92nd Ave.	MSW Landfill site has received "engineered" final cover. Gas and groundwater monitoring program terminated in 2010.
Fort Vancouver site	1845 to 1930	Covered by intersection of Highway 14 and I-5	Probably the first landfill in Clark County
George Sellinger Landfill	Unknown	25212 NE 77th Ave.	None
Hillside (Nieme) Landfill	mid-1970s	Nieme Road	None
International Paper Landfill	1954 to 1979	Healy Road in Amboy	Site ranked by Ecology as "Contaminated". ***Awaiting cleanup***
Kelly Road Landfill	Unknown	NE Kelly Road	Filled old gravel pit
Lady Island (James River Wood Waste Landfill) (Georgia-Pacific (GP)-Camas)	**1987 to currently open and operating**	**Lady Island, Camas**	**Fiber Mill wastes. Private landfill, currently under Limited Purpose Landfill permit through CCPH. Gas collection and ground water monitoring.**
Larch Mountain site	Unknown	15314 NE Dole Valley, Yacolt	Site ranked by Ecology as part of toxics cleanup program, due to confirmed presence of hazardous substances. ***Cleanup started.***
Leichner Landfill	**1937 to 1991**	**9411 NE 94th Ave.**	**Currently under post-closure permit through CCPH. Gas collection and groundwater monitoring; purchased by Clark Co. in 2012; a master plan for the landfill site was approved in 2019.**
Leonard Ek	Early 1990s	15800 NE 99th Ave.	5-acre gravel mine filled w/ unknown demolition waste
Pacific Wood Treating	1979 to 1983	3700 NW 289th St. Ridgefield	***Cleanup started***
Plew's Disposal (Turnbull Landfill)	1960s to 1974		***No further action.***
Roy Elmer Landfill	1930s to 1970s	27000 NE 269th St.	Ravine filled with waste
Rufener Landfill (a.k.a. Boise Cascade Landfill, Fruit Valley Landfill, Portside Landfill)	Unknown	NW Lower River Road, Vancouver	Landfill was transferred to Laframbois Properties, LLC; solid waste handling permit and financial assurance expired; property sold to 2600 LLC in Aug. 2013; all parties entered into a Consent Decree; Landfill was decommissioned in 2017 and redeveloped for industrial use.
Toftdahl Drum site	Unknown	22033 NE 189th St., Brush Prairie	***No further action.***
Vancouver Barracks and Veterans Hospital site	Unknown	under I- 5	Wastes from the Vancouver Barracks and Veterans Hospital. ***No further action.***
Vancouver City Landfill 1	1951 to 1953	North of Fourth Plain & west of Clark County Building	Student housing built over and/or in the area
Vancouver City Landfills 2 and 3	1934 to 1937	North of 39th St. near "S" St	None
Walz Demolition	to 1988	NE Sixth St. near Garrison Square	Filled old gravel pit - closed CDL Landfill gas monitoring

Adapted from Issue Paper #9: Landfills, prepared by the Ground Water Advisory Committee of the Intergovernmental Resource Center in August 1990. Updated in 2024 referencing the Ecology *All Cleanup Sites in Washington State* database.

H

APPENDIX H:
Siting guidelines for solid waste handling facilities

Introduction

The siting guidelines for solid waste handling facilities contained in this appendix and incorporated into the comprehensive solid waste management plan (CSWMP) update consists of the following four sections. The section on facility categories establishes standard definitions and categories for handling facilities that may be sited in Clark County in the future. The definitions also identify types of handling facilities that are not recommended by this CSWMP or are recommended only as an essential public facility. The general locational considerations section establishes the potential physical, environmental, and institutional impact areas that must be considered and specifically addressed in the siting process for each type of facility. The third section on generic siting process establishes a standard sequence of activities for investigating and selecting a solid waste handling facility site. The last section on public information and involvement program establishes recommended guidelines for communicating with and involving the public and the affected local community in the site investigation and selection process.

To carry out their solid waste management planning responsibilities, the county, and the participating cities in this CSWMP must provide for the proper and uniform development of handling facilities to meet future solid waste management needs. The selection and community approval of a site is often the most public, controversial, and difficult step in the overall development process.

The siting guidelines described in this appendix are applicable to potential facilities that are being either publicly or privately developed. The siting guidelines include, by reference, any locational criteria or location related design requirements established by the federal ***Resource Conservation and Recovery Act*** (RCRA—Subtitle D), the state Solid Waste Management — Recovery and Recycling Act (***RCW 70A.205***), state for Solid Waste Handling Standards (***WAC 173-350***), and Criteria for Municipal Solid Waste Landfills (***WAC 173-351***).

These siting guidelines are intended to promote a proper and uniform siting process that can be consistently applied throughout all participating local government jurisdictions in Clark County. These guidelines will provide resource for environmental agencies and the public with the assurances that the siting process will consider all relevant factors and site selections will be made from an objective basis. In addition, the guidelines will identify how the public, the local community, potentially impacted parties, and others can provide input into the siting process.

The siting process covered in these guidelines includes both the initial site investigations leading up to the selection of a specific site and the public involvement and education activities associated with these initial investigation activities. Land use permitting (with the local government jurisdiction), solid waste facility permitting (with the jurisdictional health department) and other permitting activities, are not directly covered by these guidelines.

Planning for and siting a solid waste facility is an integrated part of the county's waste management strategy and this CSWMP. Planning for future facilities incorporates and utilizes the county programs for waste prevention, recycling, and recovery of waste; capacity at existing contracted solid waste facilities; and capacity at private waste and recovery facilities.

Facility categories

This section defines and establishes standard categories for solid waste handling facilities. These definitions and categories are listed below. Note that no facility category or definition has been established for recyclable materials receiving centers that accept only source-separated materials. This plan recommends that no privately owned and operated inert waste landfills or limited purpose landfills be sited in the county. Any municipal solid waste landfills to be sited in the county will be a part of the regional solid waste management system, specifically recommended by the CSWMP, and designated as an essential public facility. Such a landfill could be opened to assist in response to a disaster or major event. In 2006, US Environmental Protection Agency (EPA) designated the Troutdale Aquifer (which underlies much of Clark County) as a ***Sole Source Aquifer***. This designation greatly inhibits the likelihood that any landfill will be sited in the county for any purpose.

- **Conditionally exempt small quantity generator collection facility.** A facility that receives, sorts, temporarily stores, and processes for safe transport extremely hazardous waste and dangerous waste from conditionally exempt small quantity generators.
- **Household hazardous waste collection facility.** A facility for receiving, sorting, temporarily storing, and processing (for safe transport) household hazardous waste from residential generators.
- **Inert waste landfill.** A land disposal site for receiving and disposing of inert materials only as defined in WAC 173-350.
- **Limited purpose landfill.** A land disposal site for the receiving, sorting and disposing of limited types of solid wastes (other than unseparated municipal solid wastes) including, but not limited to, asbestos, treated and untreated petroleum contaminated soils, construction, demolition, and land clearing wastes, wood wastes, treated sludges from municipal and industrial processes, and other special waste materials as defined in WAC 173-350.
- **Mixed construction, demolition, and land clearing waste recycling facility.** A facility that receives, temporarily stores, processes, and recovers recyclable materials from mixed construction, demolition, and land clearing wastes, wastes for reuse, sale, or further processing.
- **Mixed municipal solid waste landfill.** A land disposal site for the receiving, sorting, and disposing unseparated municipal solid wastes.
- **Municipal solid waste storage facility.** A facility, not open to the public, where sealed containers are received, stored up to 72 hours, staged, and/or transferred from one transportation mode to another.
- **Petroleum-contaminated soil processing facility.** A facility that receives and processes petroleum contaminated soils to remove contaminates through chemical, biological, or other treatment methods.
- **Resource recovery facility.** A facility for receiving, temporarily storing, and processing solid wastes to obtain useful material or energy.

- **Small-scale specialized incinerator.** A relatively small-scale facility that receives, processes, temporarily stores, and burns a separated special solid waste material, including, but not limited to, incinerators for disposal of infectious wastes, municipal and industrial sludges, and other special wastes.
- **Solid waste composting facility.** A facility that receives, temporarily stores, and processes solid waste by decomposing the organic portions of the waste by controlled biological means to produce useful products, including, but not limited to, compost, mulch and soil amendments.
- **Solid waste transfer station.** A facility that receives, processes, temporarily stores, and prepares solid wastes for transport to a final disposal site, with or without materials recovery before transfer.
- **Wood waste recycling facility.** A facility that receives, temporarily stores, and processes untreated wood, scrap lumber, timbers, and natural wood debris (e.g., logs, limbs, and tree trunks) into products such as hog fuel, fuel pellets, chips, or fireplace logs.
- **Yard debris collection facility.** A facility that receives yard debris for temporary storage, awaiting transport to a composting or processing facility.
- **Yard debris processing facility.** A facility that receives, temporarily stores, and processes yard debris into a soil amendment, mulch or other useful product through a chipping, screening, or grinding process other than biological decomposition (composting).

General considerations

Consideration must be given to the physical, environmental, and institutional impact areas that need to be specifically addressed for each category of handling facility. No specific locational standards or requirements are established as part of these guidelines except those federal, state, and local siting restrictions already in existence. Instead, these guidelines establish potential impact areas for each type of handling facility that must be specifically considered and evaluated as part of the siting process.

An integral part of a siting process is public input and involvement. Public involvement takes places during the entire process. Guidance for ensuring public participation is discussed in the public information and involvement program section below. The EPA has many resources and documents to help with siting and public involvement of solid waste facilities. These resources are available online; a few are listed below:

- *Waste Transfer Stations: Involved Citizens Make the Difference (EPA530-01-003)*
- *Waste Transfer Stations: A Manual for Decision-Making (EPA530-R-02-002)*
- *Criteria for Solid Waste Disposal Facilities A Guide for Owners/Operators (EPA530-SW-91-089)*

General siting process

The primary goal of the solid waste handling facility siting process described in this appendix is to provide decision makers with a choice of sites that maintain solid waste service levels, are environmentally acceptable, are feasible from an engineering and cost perspective, and are acceptable to the local community and public. This generic approach has been developed with uniform procedures that will result in an efficient and streamlined process and will provide for the proper comparisons of alternative sites.

The process begins with the development of "facility-specific" site screening criteria, as outlined in Step 1. Possible sites are then identified and screened with clearly unsuitable sites dropped from further consideration. This leads to preliminary feasibility and environmental evaluations on the reduced number of candidate sites. For publicly developed facilities, the evaluations may produce a preferred set of alternatives for the jurisdictional local government to pursue for development. For privately developed facilities, that same process should be followed with the lead permitting agency for the jurisdictional local government coordinating the development of the site screening criteria and assisting in the selection process.

No facility siting process should proceed unless a demonstrated need or recommendation exists in the most recently adopted solid waste management plan update. If the need or recommendation is not in the current solid waste management plan, the need must be demonstrated and recommended by the jurisdictional local government to be included in the CSWMP. A plan amendment must be adopted before proceeding further in the siting process.

There are eight steps in the siting process:

- Step 1: Submit a notice of intent to site solid waste handling facility
- Step 2: Development of site screening criteria
- Step 3: Candidate site identification
- Step 4: Broad site screening
- Step 5: Focused site screening
- Step 6: Comparative site evaluations
- Step 7: Developer and local government decision making
- Step 8: Environmental review and permitting process

Step 1—Submit a notice of intent to site solid waste handling facility

Before beginning the siting process, the developer should formally notify the local government jurisdiction ***Clark County Solid Waste Enforcement*** and the ***Solid Waste Advisory Commission (SWAC)*** of their intent to begin the siting process. This notification will provide the local government with the lead

time required to properly respond to the needs and effects of the siting process and trigger the public involvement process of the affected local governments.

Step 2—Development of site screening criteria

The facility developer and the jurisdictional local government should establish a set of site screening criteria to eliminate candidate sites with "fatal flaws" and rank sites with the highest potential for successful development. These criteria should be specific to the facility category being sited and should consider those impact areas identified in exclusionary siting criteria below. The criteria should also reflect the standards established in Resource Conservation and Recovery Act (RCRA)—Subtitle D, Revised Code of Washington (RCW) 70A.205, Washington Administrative Code (WAC) 173-350 and 173-351, and any other applicable federal, state, or local laws and regulations. Site screening criteria is discussed in more detail below.

Step 3—Candidate site identification

The level of effort expended by the developer in identifying possible sites should depend upon the size and type of facility being sited as well as the nature of the service area. However, a considerable effort should be made countywide to inform citizens and businesses that a facility siting effort is under way and that the developer will be accepting nominations for possible sites. These nominations will allow sites that have other ongoing or temporary uses (that might not otherwise be considered) to be included as candidate sites.

Large landholders (such as the county, cities, federal and state agencies, major commercial enterprises, and institutions) with potential land parcels appropriate in size and zoning for the intended facility can be contacted directly or through letters of inquiry. Also, real estate firms dealing in appropriate land parcels can be sent a letter of inquiry and a site selection criteria report. Other sources for identifying candidate sites include previous siting studies, use of former and present waste handling sites, aerial surveys and inventories, and countywide listings of land parcels with GIS programs.

Step 4—Broad site screening

During this initial screening step, the strategy should be to quickly evaluate candidate sites using both the siting criteria and preliminary descriptions of each of the sites. Site-screening criteria may include regulatory, environmental, physical, land use, and other locational factors. The outcome of Step 4 is a prioritized list of candidate sites. In addition, Step 4 will also identify those sites with clear fatal flaws that should be eliminated from further consideration. Depending on the number of higher ranked sites, a decision may be made to drop the lower-rated sites from subsequent Step 5 evaluations.

Step 5—Focused site screening

Step 5 will further evaluate and re-rank, as necessary, the remaining candidate sites. These evaluations may require additional field investigations, conceptual facility planning, and environmental studies. As in Step 4, the intent is to examine sites for characteristics which would preclude them from further consideration before in-depth site evaluations are performed. SWAC will review and recommend the highest ranked sites and the number that should be carried forward to the detailed comparative evaluations in Step 6.

Step 6—Comparative site evaluations

Step 6 further evaluates and directly compares the remaining candidate sites based on their ability to satisfy facility-specific siting criteria, community-specific criteria, operational requirements, and potential impacts on the surrounding environment. Step 6 is somewhat more qualitative than Steps 4 and 5, with the highest-ranked sites re-examined from environmental, constructability, operational, cost, land use, and public policy perspectives in a final feasibility appraisal. In this and later steps, the screening criteria should not be exclusively utilized. Instead, all site related characteristics and impacts should be considered and assessed. SWAC will be involved in this evaluative process.

Step 7—Developer and local government decision making

The potential developer of the facility and the local government jurisdiction should then select a preferred site for consideration for permitting by the governing body of the local jurisdiction. If the preferred site is acceptable, the local government should support the permitting process, if necessary.

Step 8—Environmental review and permitting process

As a part of the handling facility siting permit process, an environmental review must be done as a part of the ***SEPA*** process. A SEPA determination is to be made by the permitting jurisdiction. This environmental review process will be used to establish the potential environmental impacts of the candidate site. This may require the preparation of an ***Environmental Impact Statement*** depending on the level of determination issued by the reviewing jurisdiction and whether the project will generate significant adverse environmental impacts.

Acquisition of necessary state, local, and federal permits must be completed once a specific site is selected. Potential problems in permit acquisition should be identified and resolved as early as possible in the siting process. However, if a permit is deemed unobtainable at any point in the process, the second or third ranked sites can be pursued for development.

Public information and involvement program

A sound public information and community involvement program is vitally important to successful solid waste facility siting efforts. Such a program must be tailored to fit the size and category of facility and the intended service area. A siting process includes continuous public participation to integrate community needs, concerns and influence the decision-making process. Addressing public concerns is also essential to building integrity and instituting good communications with the community. The community should be informed as to why a solid waste facility is needed. Technical information and assistance in understanding the information should be provided. Information should be relayed in various formats and should consider

language barriers, literacy levels and preferred types of communications. The public needs to know why a facility is needed and what the consequences will be if no facility is sited. The public needs information about the alternatives to choose between and need to know the facts about a proposed decision to decide whether or not they support it.

There are five steps in the public involvement process:

- Step 1: Identify who and why
- Step 2: Determine the information needed
- Step 3: Identify the interest groups and organizations with whom the information must be exchanged
- Step 4: Describe any special circumstances that could affect selection of public involvement techniques
- Step 5: Identify appropriate techniques and their sequence to accomplish the information exchange

Step 1 - Identify who and why

Different groups and interests will participate at different stages in the siting process, with different levels of interest and intensity of involvement. For each stage of the process, staff should identify the public involvement objectives. Objectives will be determined by deciding what is to be accomplished with the public during this step in the siting process.

Step 2 - Determine the information needed

Each step of the siting process will have different information needs. An exchange of information includes what information the public needs to participate and what the county needs to ask to solicit information about the process.

Step 3 - Identify the interest groups and organizations with whom the information must be exchanged

Interest groups and organizations for each stage of the siting process must be defined. Reviewing the kind of information needed from the public at each step will help define who should be involved.

Step 4 - Describe any special circumstances that could affect selection of public involvement techniques

Special circumstances may change during the course of the process. A periodically review of the public involvement strategy is necessary and the strategy may adapt to changing circumstances. Example of special circumstances may include: the site may be in an area a short distance from a school or dust may be of concern for communities that believe they experience unusually high asthma rates.

Step 5 - Identify appropriate techniques and their sequence to accomplish the information exchange

The preceding steps provide the information to complete this step. Some of the major techniques for communicating with the public include briefings, feature stories, news conferences, newsletters, newspaper inserts, news releases, paid advertisements, presentations to civic and technical groups, press kits and public service announcements. Forums though which the public can express feelings, thoughts or concerns include advisory groups/task forces, focus groups, hotlines, interviews, hearings, meetings, workshops and polls.

Depending on the specifics of the siting process, the following elements should be used in the public involvement process:

- **Early notification.** The public and local communities, including affected advisory committees and business groups, should be notified as soon as the intention for siting a facility has been reviewed and determined by policymakers. The public and community should be informed of the goals, procedures, and timeliness of the process as well as when the facility would be constructed and become operational.
- **Appoint a project contact person.** A single, designated contact person affiliated with the project should be appointed and made known to the public. This individual will ensure that consistent, correct information is given out and that the public and media know the sources of accurate information.
- **Update the public.** Meetings, newsletters, press releases, and other information mechanisms should be used to provide status updates to the public on a regular basis. It is unlikely that too much information about a potential project will cause problems. However, too little information can often cause surprises that lead to problems.
- **Provide opportunity for public interaction and input.** During development of the siting criteria, identification of sites, and candidate site screening activities, the public and local community should be given opportunities to provide input. These opportunities include providing comment on siting criteria; allowing the public to nominate potential sites; and providing information about potential and screened sites, including those features which the public views to be unfavorable.
- **Despite extensive public information efforts, public response and participation may be initially low.** However, as the siting process continues and candidate sites are further evaluated and the number of sites is reduced, citizens may respond that they were not informed of the siting effort or given opportunity to participate in the process. Public information and involvement activities will not eliminate these types of complaints, but reasonable efforts will keep these responses to a minimum.
- **Utilize appropriate facilities and materials.** Public meetings should be staffed with persons knowledgeable about the siting process. Meeting facilities should be of a size and layout that all persons attending can see and hear speakers. It is better to overestimate the number of attendees rather than underestimate the number that will attend an informational meeting to provide adequate seating. In addition, attendees may be unhappy with the siting process, so materials and speakers should be provided that are even-tempered, objective, and conciliatory.

- **Acknowledge site- and program-specific concerns.** Site- and program-specific concerns will emerge as the siting process unfolds. Programmatic concerns that relate to broad questions of the efficiency and appropriateness of the technology to be used and management priorities will predominate in the early phases of siting process. Local community groups that form in and around individual candidate sites will articulate the concerns of many individuals through a few leaders and form an important part of the public information and involvement effort. As the process continues, local groups with site-specific focuses will be joined by individuals and organizations with more programmatic interests and focuses. It is important to acknowledge the different types of concerns so that presentation materials can be developed in response to both types of concerns.

Siting criteria

Criteria should be developed for identifying and evaluating potential sites. Three categories of criteria are applied during various stages of the siting process. These are exclusionary, technical, and community-specific criteria. It is important to note that no site may meet all the criteria, in which case, each criterion's relative weight and importance should be considered.

Exclusionary siting criteria

Exclusionary criteria are often defined by federal, state or local laws or regulations and might include such areas as:

- Wetlands and floodplains
- Endangered and protected flora and fauna habitats
- Protected sites of historical, archeological or cultural significance
- Prime agricultural land
- Parks and preserves
- Proximity to airports

Technical criteria

Technical criteria are used to ensure that sites selected for evaluation meet required engineering, operational and transportation needs. These criteria address the following issues:

- Central location to collection routes
- Access to major transportation routes
- Site size requirements
- Sufficient space for on-site roadways, queuing and parking
- Truck and traffic compatibility
- Ability for expansion
- Space for recycling, composting and public education
- Buffer space
- Gently sloping topography
- Access to utilities
- Zoning designations and requirements

Community-specific criteria

Community-specific criteria address impacts that the facility may have on the surrounding community. These criteria are typically less technical in nature and incorporate local, social and cultural factors. Examples of these criteria include:

- Environmental justice considerations
- Impact on air quality
- Impact on the local infrastructure
- Adjacent land uses
- Proximity to schools, churches, recreation sites, and residences
- Prevailing winds
- Number of residences impacted
- Presence of natural buffers
- Impacts on existing businesses
- Expansion capability
- Buffer zones and screening measures
- Traffic compatibility
- Impact on historic or cultural features
- Impact on neighborhood character

First, exclusionary criteria are applied to potential sites. Once unsuitable areas are eliminated, the technical criteria and community-specific criteria are applied to all remaining options. Information for each potential site should be developed so the sites can be ranked. Based on the ranking, the top two to four sites should undergo more rigorous analysis to determine technical feasibility and compliance with the environmental and community objectives.

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APPENDIX I:
Regional Solid Waste System Study Final Report

Regional Solid Waste System Study

Phase 2 Report: Regional System Facilities Plan

July 31, 2023

Final

Prepared for

Environmental Health

JRMA
ARCHITECTS ENGINEERS

Table of Contents

Chapter 1 – Introduction

Regional Solid Waste System Study (RSWSS) Phase 1 Report, completed in October 2021, provided a comprehensive assessment of the County's transfer stations and recycling infrastructure. It resulted in identifying the needs and opportunities to make necessary improvements in the current infrastructure and investments necessary to provide the capacity to cost effectively manage waste over the next 20 years. It also included an evaluation of alternatives for serving fast growing areas of the County, the north/central portion of the County, a feasibility analysis for new materials recovery facility, and thorough financial analysis of the current cost of services.

Considering the findings and recommendations of the Phase 1 RSWSS, Phase 2 provides a more detailed analysis of the necessary system improvements using updated waste projection data based on the recently released 2020 census. This resulted in preparing facility master site plans for each of the three transfer stations. The investments for each facility are focused on short-term needs over the next five to seven years. Construction cost estimates have been updated and are presented in a six-year capital improvement plan (CIP).

Additionally, the master plans identify the investments needed to build out the facilities to meet future growth. Several of these investments depend on decisions with options to serve the north/central part of the County currently served by Central Transfer and Recycling Station (CTR). These options were described in Phase 1 RSWSS and updated in this Phase 2 Facilities Plan (Facility Plan). The County will need to decide a course of action prior to making major improvements to serve that portion of the County.

Likewise, major investments in the West Vancouver Materials Recovery Center (West Van) facility are dependent on a decision whether to relocate and build a new materials recovery facility (MRF). The Facility Plan includes a financial plan that demonstrates how future investments can be funded.

Chapter 2 – Summary of Phase 1

2.1 Background of Phase 1 RSWSS

Phase 1 RSWSS provided a comprehensive assessment of current operations and conditions of existing infrastructure. The facility conditions assessment found that generally the transfer station primary structures are in satisfactory to good condition with some minor improvements needed. However, the assessment of the operating conditions indicates that each of the three transfer stations needs significant modifications and expansions to efficiently handle the increased customer traffic and amount of waste received each day. Notably, since 1992 when the County began operating the transfer stations and loading containers to barge waste for disposal at the Finley Butte landfill in eastern Oregon in 1992, the population has increased by more than 100%. No major improvements have been made to either CTR or West Van transfer stations since then. The one change to the system occurred in 2009, when the third transfer station was constructed at the Port of Washougal, however, this facility will also need to be expanded.

During the preparation of the Phase 1 Report, the County entered negotiations with Columbia Resource Company (CRC), a wholly owned subsidiary of Waste Connections Inc., to extend the contract for operating the transfer station system. A key element of these negotiations was the decision on whether the County should execute its right to purchase and own the transfer station system. The current contract provided a second five-year extension until December 31, 2026. Due to timing considerations, the County and CRC initially extended the contract for one year to carry out further negotiations. The contract has been extended until December 31, 2027.

As part of the Phase 1 scope of work, the consultant team prepared an evaluation of the ownership options comparing the advantages and disadvantages of various institutional arrangements for ownership and operations of the transfer station system. The County has stated they are not interested in ownership of the MRF and would prefer it to be relocated to another site. The decision regarding ownership is under consideration.

2.2 Summary of Findings – Capital Improvement Needs

The Phase 1 RSWSS Report provides a list of key findings for the County and cities to make decisions on regarding building the facilities needed to manage the region's solid waste system and recyclables for the next 20 years. Although the three transfer stations have been well maintained, there have been no significant investments at either CTR or West Van in nearly 25 years.

The past 10 years the amount of waste being generated increased from 230,000 tons in 2010 to nearly 400,000 tons per year in 2020, an increase of 75%. The Office of Financial Management (OFM) projected Clark County may grow to as much as 612,000 population or 22% by 2035 (data from Phase 1 RSWSS Report is based on previous census information). OFM released new 2020 census data that shows the 2040 population is now estimated to increase to almost 720,000 by 2040. This will be discussed in the Updated Population Projections section of this report.

CTR receives 60% of all the waste generated in the County and has the largest number of self-haul customers. CRC recently completed a modification to improve the entrance to the CTR facility. This will improve the safety of ingress and egress for customers onto Hwy. 503. However, more improvements are needed to eliminate offsite queue problems and to increase transfer station capacity.

CTR not only receives the largest amount of waste currently, but it is located such that it serves the central and north part of the County, which is expected to have the largest growth over the next 20 years. Thus, the Phase 1 Report evaluated several options to meet this need. This includes expanding CTR on the adjacent parcel owned by Waste Connections of Washington (WCW) or perhaps building a new transfer station elsewhere in

the region. Part of the rationale to relocating the facility is related to issues with access off Hwy. 503 and the transition of the adjacent property from rural commercial to residential uses.

Specific RSWSS Phase 1 Report findings include:

1. The County will need to decide on a long-term solution for serving the north central part of the County either by planning further expansion of CTR and/or by siting a new transfer station.
2. Over the next 10 years the County and its partners will need to invest an estimated $25 million (M) to $50M to upgrade and expand the existing transfer stations and MRF. The broad range is created by the fact that the County could decide to replace CTR and build a new transfer station.
3. Phase 1 of the CTR improvements include extending the inbound traffic lane and adding a new scale on the property's west side. The improvements will eliminate inbound customer traffic from queuing onto Hwy. 503. This could also include building an access ramp to the south end of the existing transfer station. This improvement is estimated to cost about $3M assuming the underlying soil conditions of the adjacent west property are acceptable.
4. Improvements to upgrade and expand the Washougal Transfer Station will need to be made over the next five years.
5. CRC has made some initial improvements to the West Van MRF processing system that will enhance system performance. A new processing system will be needed for the long term.

Note: Cost estimates for specific improvements have been updated in this Facility Plan.

The three transfer stations operating today were not designed to handle the current volume of traffic and waste quantities being received. Decisions to make improvements have been stalled by the current contractual arrangements with CRC. The County notified CRC of their intent to extend the operating contract for five years as stipulated in the current agreement. No decision has been made regarding the question of ownership. The County has the right to purchase the transfer stations by notifying CRC prior to December 31, 2027.

2.3 Findings - Financial Analysis to Address Capital Improvements Needs

In completing the Phase 1 Report, the JRMA consulting team completed a review of the total cost of operating the regional system. Working in cooperation with CRC, the financial analysis examined the current cost of operating the system for 2019. The purpose was to determine the actual cost of just operating the transfer station and recycling facilities. The financial review was conducted within the guidelines provided in the contract between the County and CRC. The analysis provides information that will enable the County to evaluate impacts on rates for making capital improvements.

1. The total operating cost for the three transfer stations is reported to be $8.9M in 2019. This includes full services from operating the gatehouses, managing traffic and waste volumes, and loading transfer trailers. It also includes CRC's internal transport operations to shuttle boxes and stage rolling stock and maintaining the physical infrastructure of each facility. It does not include long haul transportation to either the Wasco Landfill in The Dalles, Oregon by truck or the Finley Butte Regional Landfill in Boardman, Oregon by barge.
2. Based on the financial information provided it appears that the transfer stations have been fully depreciated. However, there may be some equipment that CRC is still depreciating.
3. Based on these financial conditions, the current operating margin, which is revenue in excess of direct and indirect operating expenses, is about 44%. Assuming facilities have been fully depreciated and paying an operating margin of 15%, the current rates generate about $5M/year that could be allocated to make capital improvements at the facilities. Over a ten-year period, this would generate approximately $50M.

4. Establishing a dedicated capital improvement fund from funds generated from current rates may negate or significantly reduce the need to borrow monies or raise rates for the needed capital improvements.

2.4 Phase 1 Recommendations

The Phase 1 Report identified three scenarios for developing the infrastructure needed to meet the needs of the solid waste system for the next 20 years. In addition to the capital improvements required for the system, it provides the background information necessary to understand the critical issues related to the current contract extension and system ownership. Listed below are key recommendations.

1. The County should establish a fair operating margin to compensate CRC for continuing with operations of solid waste facilities for the next five years or for a set period to be determined.
2. Revenues generated in excess of the cost of services plus the established operating margin should be remitted to the County. The remitted revenues will be encumbered for future solid waste system facilities and improvements.
3. The County should establish a facility Renewal and Replacement (R&R) evaluation process and a dedicated fund that will maintain system assets.
4. The County should approve funds for implementing Phase 1 of the CTR site improvements to eliminate any potential for inbound customers from queueing onto the public right of way on state Hwy. 503. The improvements include extending the entrance road and new scale onto the adjacent property located west of the current transfer station. Details of these improvements should be negotiated as part of the contract extension.
5. The County should establish a minimum rate for all customers using the transfer stations. Under the current tip fee policies, customers that bring less than 300 lbs. are not paying the cost of services. Implementing this policy may also provide an incentive to subscribe to regular collection services or cause customers to make fewer trips by consolidating their loads.
6. The County should extend the hours of operations at both the West Van and Washougal.

The results of the Phase 1 Report have detailed specific operational and master planning questions that need to be addressed as part of completing the CIP.

The key questions to be answered are as follows:

1. Should CTR continue to operate as the primary transfer station over the next 20 years or should a new transfer station facility be built?
2. Should the MRF continue to operate at West Van or should the MRF be sited at a more central location to where materials are generated, thus reducing overall collection and transportation costs, and using the vacated space for other system needs?

There were also additional recommendations to be addressed in the Phase 2 Report or in a future work plan as follows:

1. Complete the search to locate a new transfer station to serve the north/central parts of the County. The siting study should identify the preferred site for building a new station.
2. Complete subsurface investigations on the property west of CTR to determine the conditions or limitations for consideration of the option to expand CTR.
3. Complete a detailed plan for expanding the Washougal Transfer Station.
4. Complete the Renewal and Replacement (R&R)/CIP financial plan for the regional system.

Recommendations 3 and 4 above were included in the JRMA's work scope for the Phase 2 Report. These master plans will identify improvements to be constructed over the next five to seven years and should be incorporated into the longer-term master plans to complete improvements and expansions as required to provide service over the next 20 years. A CIP will be prepared using the specific projects identified in the Facility Plan. For CTR, the County will need to review the updated cost of each option and proceed to evaluate which option to implement.

2.5 Ownership: RSWSS Task 7 – Evaluation of Ownership Options

The County is considering key contractual decisions regarding the current transfer station system and ownership structure (i.e., public ownership scenarios vs. continued private ownership and operation). These contractual decisions are framed by the current agreement for the services provided by CRC. The services include processing of residential recycling materials, operation of transfer stations, transport, and disposal at an out-of-county landfill. The original contract was renewed in 2006 for a period of ten years and provided for two five-year extensions. The second extension was for the period ending December 31, 2026. However, the County and CRC negotiated an extension to this contract to provide for operations of the transfer station system until December 31, 2027.

A Technical Memorandum and RSWSS Task 7 report on public ownership and private operation of the County solid waste system was completed in February of 2023. This document highlighted the following information.

The County contract with CRC provides the option for the County to purchase West Van and CTR stations for $1.00 with the right to purchase Washougal if the City of Washougal does not exercise the City's contractual option to purchase it. The soonest the County option can be exercised is December 31, 2027. The soonest the Washougal option can be exercised is December 31, 2027.

The RSWSS Task 7 provides an analysis of the advantages and limitations of the following ownership options for consideration:

- Owned and operated by a private company (status quo option).
- Publicly owned and operated by a private company under contract.
- Publicly owned with limited public operation (scale house only) with facilities operated by a private company under contract.
- Publicly owned and operated.

The County and cities support further evaluation of the formation of a multi-jurisdictional organization to manage the regional transfer system. The RSWSS Task 7 analysis focused on the types of organizational structures available under the Revised Code of Washington (RCW). The available options evaluated included:

- Interlocal Cooperation Act (ILA) – Chapter 39.34 RCW
- Joint Municipal Utility Services (JMUS) – Chapter 39.106 RCW
- Metropolitan Municipal Corporations (MMC) – Chapter 35.58 RCW
- Disposal District –Chapter 36.58 RCW

The Technical Memorandum also included background information related to potential implementation tasks for a public ownership model as follows:

- JMUS organizational details
- Conceptual organizational chart
- Salary ranges for staff

- Financial plan and budget considerations
- Draft implementation schedule
- Steps for implementation

At the Solid Waste Advisory Commission (SWAC) meeting on May 4, 2023, County staff recommendations were presented and voted on. SWAC adopted the following recommendations related to ownership.

- Solid waste staff recommend the County and or City of Washougal exercise the available contractual options to purchase the facilities when the option of public ownership becomes available.
- Solid waste staff recommended the option to publicly own and privately operate the regional transfer facilities under contract to be further evaluated. The evaluation should focus on the advantages and disadvantages of public operation of the scale houses versus fully contracted services.
- Solid waste staff recommend further evaluation of JMUS model. The evaluation should include an extensive stakeholder outreach and input process prior to the formation of a multi-jurisdictional organization.

The issue of ownership will continue after the completion of this report, and it is the County's intent to continue working with their elected officials and other jurisdiction to educate them on these considerations and inform them on a preferred direction.

Chapter 3 – Updated Population Projections

3.1 Background

In the Phase 1 Report, JRMA used 2010 census data to make projections for the future population increases in Clark County by 2040. Since then, the 2020 census data was released and JRMA updated its numbers to reflect the change. The 2010 census data shows the population of the County at 425,363 and projected it would grow to 488,500 by 2019. The new 2020 census data shows the population size of Clark County at 503,211 in 2020. This is an 18.3% increase in population size since 2010. Based on this information, OFM projects that by 2040 Clark County will have a population of 720,128, a 43.1% increase from the 2020 population. This data is used for forecasting how much waste may be generated in the coming years, and to ensure Clark County is prepared with well-equipped transfer stations that have the capacity to support the growing needs of the County.

Table 1 presents the updated population projections for the County based on the 2020 census as forecasted by OFM. It includes the projection of reach for the cities and the unincorporated portions of the County.

Table 1: Clark County Population Projections

Clark County Population Projections					
City or Area	**2010 Census**	**2020 Census**	**% Increase**	**2040**	**2020 to 2040 % Increase**
Battle Ground	17,571	20,743	18.05%	29,698	43.2%
Camas	19,355	26,065	34.67%	37,712	44.7%
La Center	2,800	3,424	22.29%	5,060	47.8%
Ridgefield	4,763	10,325	116.78%	16,716	61.9%
Vancouver	161,791	190,915	18.00%	272,837	42.9%
Washougal	14,095	17,039	20.89%	24,140	41.7%
Woodland (part)	0	84		119	42.0%
Yacolt	1,566	1,668	6.51%	2,344	40.5%
Incorporated Clark County:	**221,941**	**270,263**	**21.77%**	**388,625**	**43.8%**
% Incorporated:	52.2%	53.7%	2.91%	54.0%	0.5%
Unincorporated Clark County:	**203,422**	**233,048**	**14.56%**	**331,503**	**42.2%**
% Unincorporated:	47.8%	46.3%	-3.18%	46.0%	-0.6%
Clark County:	**425,363**	**503,311**	**18.33%**	**720,128**	**43.1%**

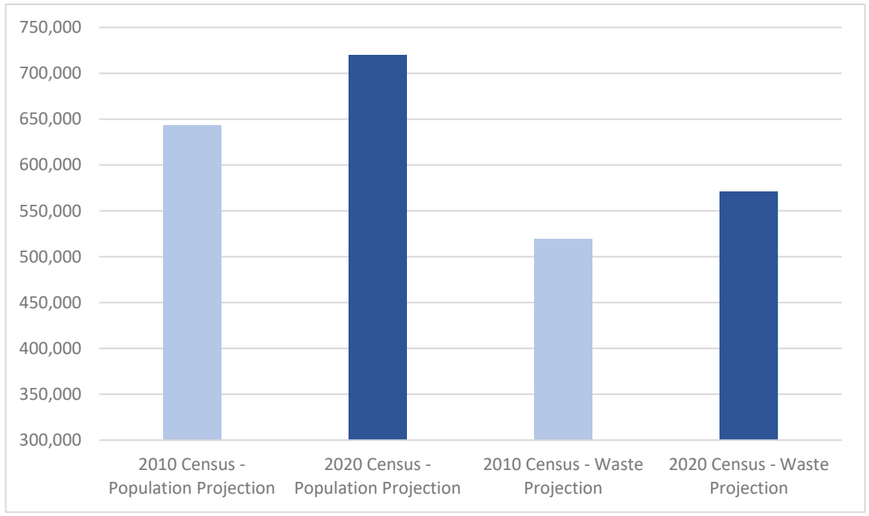
Source: Washington State - Office of Financial Management, Forecasting and Research Division

The population data was then used to update the projections of waste generated by each jurisdiction shown in **Table 2** on the next page. The projections are made by assuming each person generates on average 1,587 pounds of waste annually based on 2021 data. This generation rate was arrived at by considering past data. **Table 2** shows the estimated amount of waste that might be generated by each jurisdiction by 2040.

Table 2: Clark County – Municipal Solid Waste (MSW) Projections

Clark County – MSW Projections			
City or Area	**2021**	**2040**	**% Increase**
Battle Ground	16,790	23,565	28.7%
Camas	21,321	29,924	28.7%
La Center	2,861	4,015	28.7%
Ridgefield	9,451	13,264	28.7%
Vancouver	154,256	216,497	28.7%
Washougal	13,648	19,155	28.7%
Woodland (part)	67	95	28.7%
Yacolt	1,325	1,860	28.7%
Incorporated Clark County:	219,720	308,374	28.7%
% Incorporated:	54.0%	54.0%	0.0%
Unincorporated Clark County:	187,484	263,048	28.7%
% Unincorporated:	46.0%	46.0%	0.0%
Clark County:	**407,204**	**571,422**	**28.7%**
Note: *Projected Waste Generation Rate - 1,587 pounds/capita /yr.*			

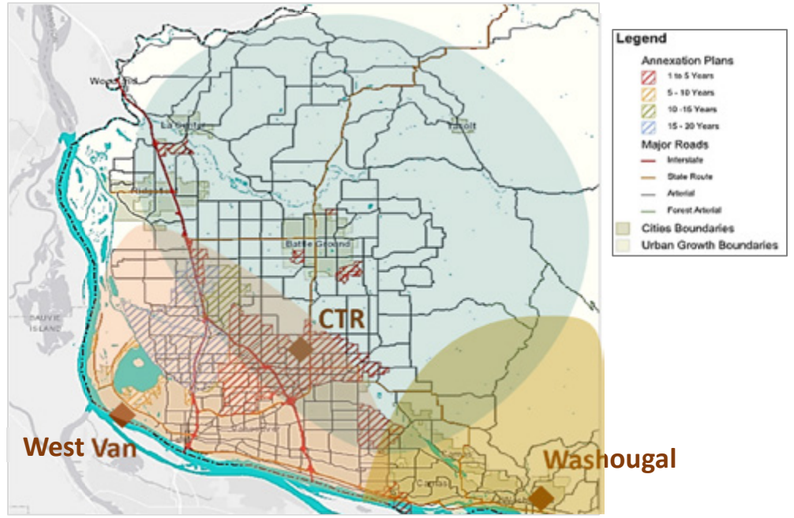
Figure 1: 2010 and 2020 Census Data Population and Waste for 2040 Projections



As shown in **Figure 1**, using the 2020 census, the population in 2040 is projected to be 12% higher or about 77,000 more than the previous projection. Consequently, the amount of waste generated is estimated to be more than previously forecasted in Phase 1.

A key to ensuring the necessary infrastructure and capacity to manage this future growth is to determine how the increase will impact the current transfer station system. In the Phase 1 RSWSS, an assessment was completed to demonstrate areas where growth is expected to occur to estimate impacts to the volume of waste received at each facility. The assessment used the County's growth management plan to prepare a map of the services areas for each station shown in **Figure 2**. These service areas are shown as circles and the crossed hatched areas are where the largest growth is expected to occur. As population increases in these assumed service areas one cannot predict precisely where collection trucks will take waste or what facility self-haulers will take their waste. Typically, customers will base their decisions on the driving time.

Figure 2: Map of County with Annexation



Based on the County's growth management plan, a large portion of the growth is expected in the central and northern cities of Ridgefield and Battle Ground. **Table 3** on the next page was prepared for estimating the amount of waste that each transfer station may receive. Much of the growth is expected in the urban growth boundary as shown in the crossed hatched areas. To provide a range of these future waste projections it is assumed that between 50% and 70% of the growth will impact the north services area or what might be received CTR. The difference largely would use West Van. Growth in the eastern part of the County serviced by Washougal is expected to be the same under either assumption.

Table 3: Estimated Transfer Station Service Area Waste Projections

Transfer Station Service Area	Assuming 50% UGB Growth in Central Area			Assuming 70% UGB Growth in Central Area		
	Population	% Change of Waste	Additional Waste (TPY)	Population	% Change of Waste	Additional Waste (TPY)
Service Areas						
Growth in City of Vancouver in North/Central County	40,961		41,780	57,706		58,860
Growth in Unincorporated North/Central County	49,227		50,212	49,227		50,212
Growth in North Cities	26,968		27,507	26,968		27,507
CTR Service Area:	**117,156**	**54%**	**88,734**	**133,901**	**62%**	**101,416**
Growth in City of Vancouver (25% of City & County)	20,840		21,257	20,480		20,890
Growth in unincorporated East County – Assume 20%	19,112		19,494	19,112		19,494
Growth in East Cities	18,748		19,123	18,748		19,123
Washougal Service Area:	**58,700**	**27%**	**44,459**	**58,340**	**27%**	**44,187**
West Van Service Area:	**40,961**	**19%**	**31,024**	**24,576**	**11%**	**18,614**
Total:	**216,817**	**100.0%**	**164,217**	**216,817**	**100%**	**164,217**

As shown above, the additional amount of waste expected to be received at CTR over the next 20 years may vary from 88,000 tons per year to more than 101,000 tons. Likewise, the additional waste to be received at West Van would inversely vary from a high of 31,000 tons to 18,000 tons per year with Washougal expected to experience about 44,000 tons more per year. In planning for the future capacity of each facility it is desirable to consider the worst-case scenario. **Table 4** below uses the service area assumptions presented in **Table 3** above to identify the worst-case scenario for how much waste may be received at each transfer station.

Table 4: Estimated Transfer Station Demand

Transfer Station Service Area	Estimated Transfer Station Capacity Analysis	
	Existing 2021 TPY	Projected Worse Case 2040 TPY
CTR Service Area	**251,847**	**353,263**
Washougal Service Area	**38,638**	**83,097**
West Van Service Area	**116,719**	**147,743**
Total:	**407,204**	**584,103**

It is understood that these are the best guesses at predicting what amount would be delivered to each transfer station as there are many factors that influence a decision on which facility to travel. The travel time for each customer and/or changes in collection practices and routes can change the location where customers will deliver waste. However, flexibility to handle variability in the amount of waste is considered in the master planning process.

3.2 Summary of Population and Waste Flow Projections

The population and corresponding waste projections have been updated from the Phase 1 RSWSS considering the impact of the new 2020 census results. OFM continues to review this data annually and therefore it is subject to change. However, this new data is the basis for projecting the amount of waste to be received and managed by the transfer station and recycling facilities. Keeping in mind the existing facilities are currently receiving significantly more customers and waste quantities than they were designed for and that no major improvements have been made since 1993. The master plans must address deficiencies in current operations as well as ensure there is capacity to manage the future waste generated in the service areas. This updated data will be the basis for preparing the master site plans to make improvements and expansions at each facility to provide safe, reliable, and cost-effective services for the next 20 years or longer.

Chapter 4 – Phase 2 Report - Update Regional Facilities Plans

4.1 Introduction

The Phase 1 transfer station assessments and needs and opportunities review resulted in developing preliminary facility plans for both CTR and Washougal. Regarding West Van, it was recommended a master plan be prepared once a decision on the future MRF has been made. Based on the stated intent of the services provider (CRC) and the County, it is assumed the MRF will be relocated to a new facility in five years. Thus, the West Van Master Plan is included in this Phase 2 RSWSS Report.

Since completion of the Phase 1 RSWSS in October 2021, a full evaluation of alternatives for serving the north service area has not been completed. Considering that further evaluation of the north service alternatives is necessary, the Phase 1 facility plans have been updated to provide information for deciding on which option should be recommended. For Phase 2, each facility has been re-evaluated considering updated waste projections.

Other factors that will impact the plans to implement improvements include the status of negotiations between the County and CRC. This includes continued discussions about the future ownership options.

4.2 Organics Management

The other factor that will impact future operations will be developing the infrastructure necessary to manage organics. In March 2022, the State of Washington passed HB 1799 that directs local jurisdictions to reduce organic materials disposed in landfills by 75% before 2030 and widely expand collection programs. Organic material includes food waste, yard debris, and wood.

Starting in 2024, businesses with at least eight cubic yards of weekly organic material will be required to have on-site management or collection service in place. By 2027, local governments will also have to offer collection services for organic waste generated by businesses.

Residential collection will be required on January 1, 2027, for every other week or at least 26 weeks a year. These collection requirements will apply to Vancouver and the areas in County just north of Vancouver. Other areas are exempt from the requirements.

In 2021, the County generated 407,204 tons of MSW. Based on a waste composition study prepared for the City of Tacoma (2014) food waste represents about 20% of MSW. This data indicates the County may have discarded as much as 80,000 tons of food waste in 2021. If 75% is removed, the County would need to find an alternative for 60,000 tons of food waste. The City of Vancouver offers a voluntary commercial food waste collection program that collects approximately 1,500 tons annually and any County resident that has yard debris service may also add food waste to their yard debris bin. There was also a little over 18,000 tons of source separated yard debris collected in 2021 at the transfer stations. The sum of the two material categories (60,000+18,000) represents an approximate 78,000 ton opportunity for the County.

The facilities plan anticipates providing space for the management of organics at all three transfer stations. The assumptions are that the County in the near term will continue to use composting as its preferred method of processing yard waste and mixed organics. The designs will also provide flexibility in the event that method was to change.

Further evaluation of the feasibility of alternatives for implementing best management practices and implementing the most cost-effective strategy for handling organics is needed. As such it is recommended that the County and its partners complete a feasibility study to determine a course of action for meeting the goals established under HB 1799. This includes considering both collections services for organics, processing, and technologies to convert organics into renewable energy and/or new products.

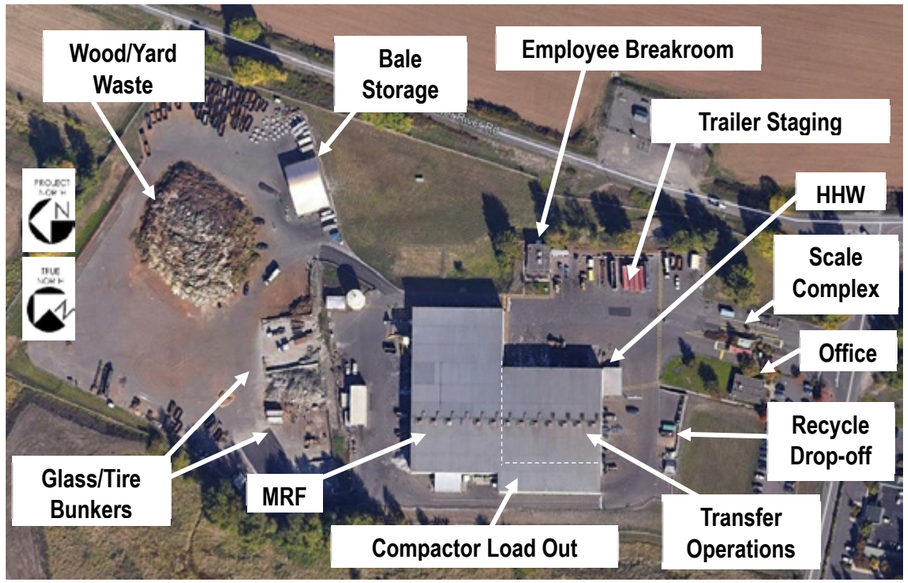
Chapter 5 – West Vancouver Materials Recovery Center (West Van)

5.1 Introduction

West Van is located on a 21+ acre site off Old Lower River Road at the Port of Vancouver as depicted in **Figure 3** below. It was constructed in 1993 to receive MSW from commercial collection trucks and self-haul customers. MSW is loaded into containers that are shuttled half a mile to a barge loading facility located on the Columbia River. Waste is then barged more than 200 miles to the Finley Buttes Regional Landfill in Boardman, Oregon.

The property includes a large 91,100 square foot (sf) pre-engineered metal building (PEMB) that receives waste from self-haul customers and WCW collection trucks from residential and commercial accounts. The transfer operations occupy 46,000 sf of the structure while the MRF receiving and processing operations use the remaining 45,100 sf.

Figure 3: West Vancouver Materials Recovery Center



In addition to the transfer station and MRF operations, West Van provides approximately seven acres on the north side of the site for managing other waste streams. This includes space for receiving and processing yard debris and wood waste and dedicated bunkers to receive mixed glass and inert waste such as concrete and rock deposits. Tires are also received and temporarily stored before being transferred for processing. It also provides supplemental storage for baled materials in a canopied area and for parking rolling stock and container storage. These operations are performed outdoors except for the bale storage that is stored under canopies.

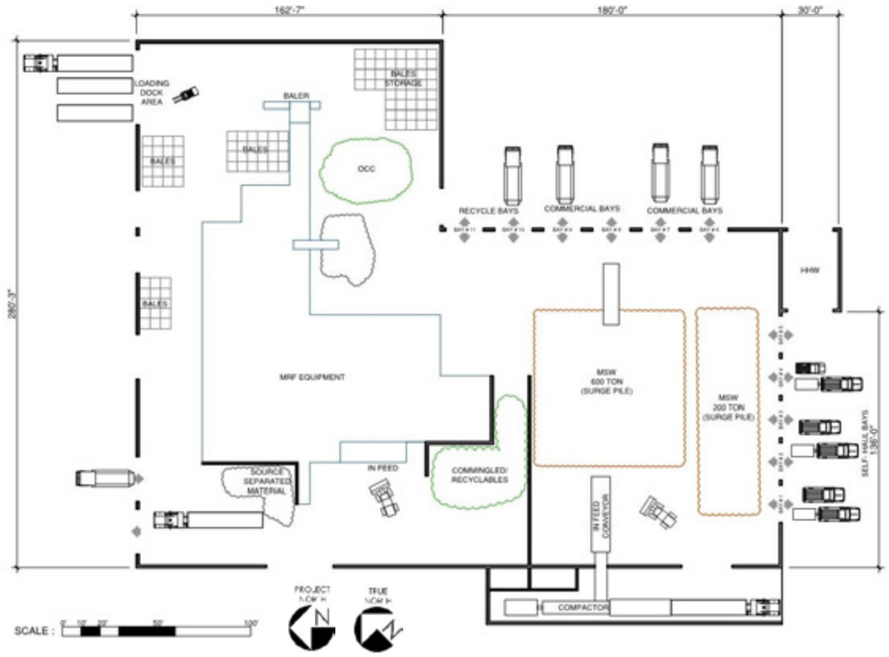
5.2 Summary of Phase 1 RSWSS – Assessment

Existing Tip Floor Operations

Since the facility was constructed in 1993 there has been no major expansion to the transfer station tip floor area. CRC has replaced the original compactor in recent years. When the facility was first opened the total amount of waste generated in the County was 173,000 tons per year (TPY) or about 600 tons per day (TPD). In 2021 the transfer station system received over 400,000 TPY or roughly about 1,400 TPD. In 2021, West Van received over 116,000 tons of waste or roughly 30% of all waste generated in the County. The percentage of waste received at West Van has remained fairly constant over the past six years. Assuming West Van continues to receive a similar percentage of the total waste generated, by 2040 the total waste delivered to West Van is estimated to be about 150,000 TPY or 600 TPD under peak periods. This is consistent with the service area analysis presented previously.

The current tip floor arrangement shown in **Figure 4** demonstrates that the facility does have sufficient space to receive and temporarily store 400 TPD. However, the amount of space needed is dependent on the load out capacity or time needed to remove all waste from the tip floor. A single compactor can load a container/trailer with 30 tons of waste in about 25 minutes or about 60 tons per hour (TPH). The amount of waste for each container could be more or less than 30 tons depending on the materials being loaded. It takes between eight to ten hours of continuous loading operations to remove 600 tons and does not include interruptions in services whether it be equipment downtime or availability of containers to load. Also, West Van has no contingency if the compactor is out of service for extensive repairs.

Figure 4: Existing West Van Floor Plan



Another factor related to the capacity of the transfer station is the number of stalls available for customers to unload. As shown in **Figure 4** there are currently five-20 feet (ft) roll up doors (referred to as Bays 1-5) located

on the south side of the building for self-haul or cash customers to unload. Each door opening may accommodate two self-haul vehicles to unload thus providing 10 stalls to unload. However, the door farthest to the west (Bay 1) is currently dedicated to accepting mixed organics (i.e. food waste and yard debris) collected in both the Cities of Vancouver and Ridgefield and is not available for self-haul customers. Bay 5 is limited for unloading as it must remain unavailable when the household hazardous waste (HHW) is open to accept materials. This leaves only three bays and six stalls that can be used to unload self-haul customers. Based on information in the Phase 1 RSWSS, during peak hours from 9 a.m. to 3 p.m. West Van experiences between 40 and 45 vehicles per hour. On average the typical self-haul customer will use 10 minutes to unload including the time to back in and exit. This means that a stall can handle five (5) vehicles per hour. With only six stalls available on a consistent basis, the facility can handle on average 30 vehicles per hour, which is much less than what is needed. The result is that at times traffic will back onto NW Old Lower River Road.

The County is considering opening West Van to self-haul customers on Sundays which may help spread out the current volume. It could also result in more traffic, particularly if some of CTR's current customers decide to use West Van. If all doors are dedicated to accepting self-haul customers, it appears there would be 10 stalls available and sufficient to handle the current volume of customers. But changes to the circulation pattern should be considered to assure there is adequate on-site queue space between the scales and the stalls. Furthermore, these conditions contribute to off-site queue issues onto public right of way.

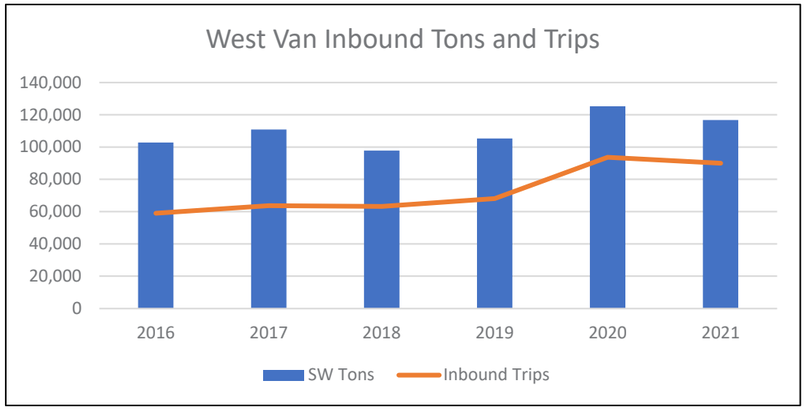
On the east side of the transfer station there are six (6) twenty foot doors (referred to Bays 6-11) for collection trucks to unload. One bay is used for access to the front loader equipment. All compactor and roll off trucks hauling waste use three bays (Bays 7-9) thus providing four to six stalls to unload. These vehicles will unload in approximately five minutes thus, conservatively each bay can receive about eight vehicles per hour. Currently, 50 to 60 collection trucks enter the facility each day with possibly 16 vehicles at peak hours. Thus, a minimum of three stalls are needed to unload.

Bays 10 and 11 are used by trucks with commingled recyclables that serve the entire County. There are about sixty collection trucks with recyclable materials that arrive at West Van five days per week. A few trucks (less than 10) also deliver recyclables on Saturday. As long as the MRF continues to operate at West Van these stalls must remain dedicated to unloading the recycling collection trucks. If the MRF is relocated, then these stalls can be used by other customers.

Waste Quantities and Traffic Counts

Tons received and traffic volume at West Van were updated with 2021 data. **Figure 5** illustrates that both waste received and number of trips to the transfer station declined from 2020, however remain above the previous four years. This data was used to make projections for the Basis of Master Plan recommendations.

Figure 5: West Van Historic Waste Quantities and Traffic



Existing Traffic Circulation

Access to the West Van facility is from a local service road used by several local businesses including the barge loading operations to transport waste to the Finley Butte Regional Landfill. The facility entrance is just 200 ft west of NW Old Lower River Road. All traffic entering and exiting the facility uses this one access point as shown in **Figure 6** below.

Figure 6: West Van Entrance and Scale Complex

When entering the site all traffic is directed to a single scalehouse complex that has three inbound and two outbound lanes. All inbound customers must use a single lane with a scale to weigh in. CRC recently installed a second scale dedicated to allowing commercial collection trucks to use a separate lane to weigh in. The third lane is a bypass lane used by transfer trailers and commodity trucks to enter the facility without being weighed. The commodity trucks are used to ship recycled materials to markets.

After weighing in at the scale complex, self-haul customers are directed to turn left where they queue up for an available stall to unload at the transfer station. Self-haul customers can also access either or both the recycling

drop off and the HHW facility when it is open. WCW collection trucks will enter the same access lane and proceed to unload on the east side of the transfer station and MRF.

Currently, traffic can back up off the service road and onto Old Lower River Road. Since this road has very little through traffic it does not create a significant congestion problem at the intersection for through traffic, but it is not a desirable condition. When traffic does back onto public right of way, transfer trucks delivering waste from CTR to the barge loading facilities are impacted. Since 60% of the waste generated in the County is received at CTR this off-site queue directly impacts loading operations at that facility. The new scale serving the commercial trucks may help to relieve the potential for backup onto the Old Lower River Road.

All traffic including self-haul customers, collection trucks, transfer trailers, and commodity trucks must exit at this same entrance. Vehicles that need to weigh out use the outbound scale lane while other vehicles needing not to weigh out can use the bypass lane and must cross through the outbound scale traffic.

Site circulation for the various customers using the facilities has evolved over the many years of operation as new services and programs have been adopted. **Figure 7** below captures the complexity of their traffic patterns. The site circulation near the entrance is quite congested at times. This is a result of the close proximity of the entrance to the main transfer station building and where vehicles unload. It is further complicated due to the location of the HHW and the recycle drop off area.

Figure 7: West Van Traffic Patterns

In Phase 1 RSWSS a conditions assessment was conducted in 2019. From this review it was determined there were no immediate facility deficiencies to be addressed other than to improve circulation. The main transfer station and MRF structure were determined to be in good condition. However, many of the support structures were constructed in the 1990s and may be obsolete or in need of major renovation in the longer term. It was recommended that a site Master Facilities Plan be prepared to consider what improvements were needed to existing facilities and what modifications and expansions were needed to address long term solid waste services for the regional system.

Since this assessment there have several new developments that need to be considered in preparing a master plan as follows:

1. The 2020 census data reveals the population in Clark County is higher than previous data and projections.
2. The number of self-haul stalls for unloading will need to be increased. The number of cash customers using the facility has increased significantly in the last two years. In 2021 the number of cash customers increased from 68,000 in 2019 to about 90,000, an increase of 22,000 vehicles (shown in **Figure 5**).
3. The State recently passed HB 1799 requiring local governments to reduce the amount of food waste being disposed of in landfills by 2030.
4. The current food/yard waste collection programs in the City of Vancouver continue to grow and the City of Ridgefield has also started a similar program. This will require more space to be dedicated to handling food waste and/or mixed organics.
5. The County, Vancouver and CRC need to evaluate relocating the MRF to another site to increase room for organics management.
6. The City and County are considering public ownership options for the regional transfer station system.
7. The City has extended water service to this area. Assuming the facility can connect to provide water service, the existing well and pump system can be replaced and relocated.

These new developments need to be included in updating the operational assessment and considered in preparing facilities plan for addressing the long-term service needs of the solid waste system.

In summary, all customer traffic and transfer activities relying on a single point of ingress and egress causes bottlenecks and congestion that impact the site circulation and detracts from operating most efficiently. CRC employees attend to monitoring the conditions to route customers safely while on-site. With growth in the service area, circulation problems will only be exacerbated. Also, the HHW and recycle drop off area should be reconfigured to improve services. This will be even more urgent if and when the MRF is relocated.

5.3 Basis of Master Plan for Facility Improvements

Based on the findings from Phase 1 RSWSS and the recently passed HB 1799, the design data in the following **Table 5** is recommended to be the basis of the West Van Master Plan.

Table 5: West Van - Basis of Master Plan Design Data

Category		Existing	2040 Projection	% Change
Waste Quantities (MSW)				
Annual	Tons	116,719	150,000	29%
Ave Daily	Tons	400	550	38%
Peak Daily	Tons	450	600	33%
Customer Trips				
WCW				
All Commercial	Annual	25,428	33,000	30%
	Daily	110	127	15%
	MSW	50	65	30%
	Recycle	60	75	25%
Self-Haul/Cash	Annual	64,554	96,000	49%
	Daily	227	350	54%
Organics		**Tons/Year**	**Tons/Year**	
Yard Waste				
	County	5,514	7,200	31%
	Metro*	11,800	N/A	
Wood				
	County	5,465	7,100	30%
	Metro*	245		
Mixed Organics				
	Source Separated	1,416	1,840	30%
Food Waste – MSW				
	Vegetative	13% 15,173	22,230	47%
	Other	8% 9,200	13,700	49%
		24,373	35,930	47%
Total Organics				
	Source Separated	12,395	16,140	30%
	MSW + SS	36,768	52,070	42%

*Material that originates from the Portland Metro region

Organics Management

West Van received 24,000 tons of yard debris and wood waste in 2021. Of this total 11,800 tons were reported to be received from Portland Metro. Therefore, only 11,200 tons of these organic materials were collected in the County. The facility also received almost 1,500 tons of mixed organics (yard debris with food waste) collected from residences in the cities of Vancouver and Ridgefield and source separated commercial food waste. These organics must be received inside the transfer station. The commercial food waste collection program is voluntary. Residential food waste is processed with yard debris collection. A waste characterization study of yard debris has not been conducted by the County but this collection method traditionally accounts for about 5% of the yard debris weight in other communities. These materials are reloaded and then transported to the Dirt Huggers Compost Facility near Dallesport, Washington. As mentioned, the State recently passed HB 1799. One component of the West Van Master Plan will be to design options for managing organics in response to this new legislation. This could include construction of organics processing that can be used as a reload center for organics being processed for compost or enough spacing to handle preprocessing equipment for perhaps an aerated static pile compost system (ASP) or anaerobic digestion (AD) on or off-site. Traditionally, post consumer commercial food waste is highly contaminated. Both composters and operators of anaerobic facilities desire material that is low in contamination so this waste stream presents issues and will require processing to remove contaminants. A feasibility study should be conducted to establish the best option for processing organic material at West Van that emphasizes the highest and best use as well as producing a feedstock that has high market demand.

Near Term Issues

1. A critical need is to establish a location and facilities needed for top loading operations. An immediate need is to have capabilities to top load food waste/mixed organics.
2. Develop plans to reduce congestion and eliminate offsite queue issues.
    a. Consider adding a new access for transfer trailers/containers off Old Lower River Road.
    b. Consider a new exit road for containers being shuttled to the barge facility.
3. Extend the City of Vancouver waterline to provide water service and replace the current ground water pump and tank system used for fire suppression.
4. Conduct a feasibility study to research options for processing organics material at the station including relocating the MRF.
5. Consider the location for the second compactor.

Longer Term Issues

The West Van facility is located on 21 acres. The back seven acres are currently used for receiving and processing yard debris and wood waste. It also includes a bale storage structure and container/bin storage and other support activities. The County should consider how this space can best be used to provide waste management and recycling services in the future.

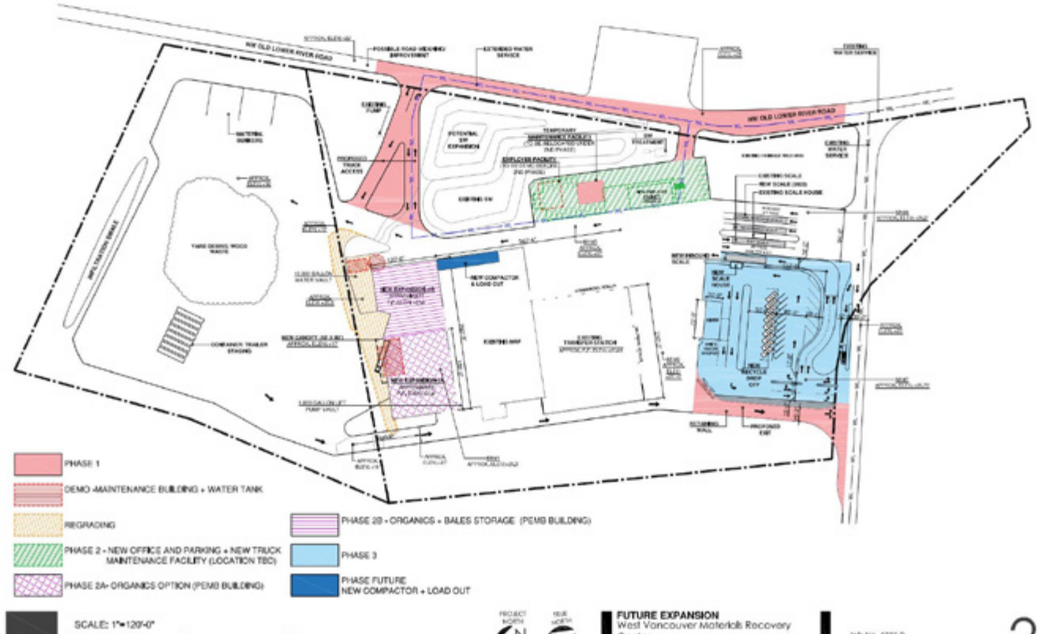
Also, the MRF processing operations are expected to be relocated to a new facility. Once the equipment line is removed the space can possibly be used for other services. Options may include:

1. Receive and process construction and demolition (C&D) materials.
2. Process organics, including food waste, green waste, and wood waste.
3. Other operations as deemed necessary for providing waste management and recycling services. This should include:
    a. Provide a location onsite for an expanded recycle drop off for self-haul customers.
    b. Provide a new location for a HHW to alleviate the conflicts with self-haul customers unloading at the transfer station.
    c. Recovery of materials from other waste streams such as self-haul or targeted commercial loads

5.4 Description of Improvements of Master Plan

The Facility Plan includes a Basis of Master Plan design for West Van. It takes into consideration the conditions and operations assessment from Phase 1 and the updated waste flow projections. The plan was developed considering that certain improvements can be implemented in the near term while space is provided for making future longer-term improvements. The plan is presented as a phased development plan that also considers the importance of maintaining operations while construction of improvements is being made.

Figure 8: West Van Site Plan



Phase 1

These improvements are designed to eliminate congestion and site circulation problems with the current operations. They are also consistent with providing longer-term improvements for expanding operations.

1. Add a new commercial route truck entrance and exit NW Old Lower River Road.
2. Add a new staff entrance to future new office.
3. Temporarily relocate the maintenance facility next to the employee facility.
4. Add a separate exit for transfer trucks going onto the private access road to the Tidewater Barge dock.
5. Add a new water line to service the property for fire and domestic uses.
6. Remove the existing water tank and maintenance facility.
7. Regrade the area near the existing maintenance facility.

And Phase 2A

1. Construct a new mixed organics receiving, and top load out bay off the existing MRF with partial enclosure to capture fugitive debris.
2. Collect runoff water in existing or expanded water vault system for treatment.

Phase 2B (Optional)

1. Expand mixed organics receiving and top load out bay and add bale storage.

2. Runoff collected from the organics area will be stored in existing or upgraded vaults.

Phase 2

1. Construct a new office facility and parking area.
2. Build a permanent maintenance facility (location TBD).

Phase 3

1. Build a new HHW and public recycling area.
2. Add a new public entrance and new scale option for public customers.

Phase 4

1. Using the previous commodities load dock area reconfigure the space to install a second compactor load out. Alternative locations can be evaluated.

5.5 Estimated Construction Cost for West Van Capital Improvements

The West Van master plan identifies specific improvements to upgrade current facilities to meet immediate needs. It also recognizes that once the MRF is relocated there is a large, enclosed building space (approximately 45,000 sf) that can be repurposed for future operations and new services. The improvements represent preliminary design concepts requiring final programming and design development prior to producing construction documents.

Construction cost estimates were made for each phase of the capital improvements for the West Van Transfer and Recycling Facility. These estimates are based on construction costs for specific items from projects completed in Clark County or similar projects in the Pacific Northwest in 2023. The cost estimates represent a “Class 3 planning level” cost estimate meaning it carries a variance range of plus 30% to minus 20%.

Table 6: Construction Cost Estimate – Capital Improvement Plan

West Van Transfer Station Construction Cost Estimates	
New Access Improvements (Phase 1) Description: 1. Expand NW Lower River Rd to provide separate access for transfer trailers and exit for collection trucks. 2. Construct a new south access ramp direct to the private road to the barge facilities. 3. Regrade the backyard to accept new traffic pattern as needed. 4. Address long term improvements to stormwater management system.	**$1,400,000**
Site Improvements (Phase 1) Description: 1. Extend the city water line to replace the current well and tank system for fire protection. 2. Construct a grade separation/wall system to provide for new top load stations. 3. Relocate rolling stock maintenance facility (temporary location).	**$2,000,000**
Option 2A – Building Expansion – Organics Load Out / Bale Storage Includes: 1. Construction PEMB (120'x150') and canopy (10'x80') for top load station to be used for organics load out.	**$3,600,000**
Option 2B – Building Expansion Option – Organics Top Load + Bale Storage (2A) Description: 1. Construct a larger PEMB (120'x280') to provide organics load out and covered bale storage. 2. NOTE: This option is dependent on timeline to relocate MRF.	**$6,700,000**
New Employee Center (Phase 2) Description: 1. Construct new office and employee center with adequate employee parking and associated utilities.	**$2,200,000**
Recycle Drop Off and HHW (Phase 3) Description: 1. Build new and expanded recycle and HHW drop off facility. Update scale configuration to provide adequate onsite queue and safe circulation of self-haul customers.	**$3,000,000**
Total All Phases – Option 2A	**$12,200,000**
Total All Phases – Option 2B	**$15,300,000**
CIP Budget	**$15,300,000**

5.6 Recommended Implementation Schedule

The County should **proceed with construction of Phase 1 and 2 of the West Van improvements in the next three years.** These projects will improve on-site circulation, minimize congestion at the gatehouse and help alleviate off-site queue issues. The top load for organics load out (Option 2A) can be completed subsequent to the site improvements. However, a final decision on the expansion should be assessed in conjunction with the evaluation of the option and estimated schedule to relocate the MRF. If this equipment is removed in the next four years, the current space occupied by the equipment may be repurposed for managing organics and the building expansion may not be necessary as conceived in the master plan.

The construction schedule is presented in the CIP section of this report.

Chapter 6 – Central Transfer and Recycling (CTR)

6.1 Introduction

CTR is located on State Highway 503 in central Clark County near Brush Prairie. It serves the largest area of the County and is the area projected to have the most growth over the next 20 years.

Figure 9: Current CTR Site Plan

The facility resides on an irregularly shaped parcel of land and includes three main structures that make up the facility operations. The solid waste transfer station is the main structure. There is also a combined recycling building and HHW building, and an administrative and operations office building. The facility was originally constructed circa the 1970s. In 1991, a new 38,000 sf transfer station was added to replace the original transfer building. MSW is loaded into containers that are shuttled 13 miles to a barge loading facility located at the Port of Vancouver on the Columbia River near West Van. Waste is then barged more than 200 miles to the Finley Buttes Regional Landfill in Boardman, Oregon. In addition to managing the area's waste, CRC operates a recycling and HHW waste drop-off center. **Figure 9** above provides an aerial photo of the site operations.

The original transfer station building was expanded and converted to the recycling and HHW building. An automatic scale system for route trucks was installed in 2012.

6.2 Summary of Phase 1 RSWSS – Assessment

Conditions Assessment

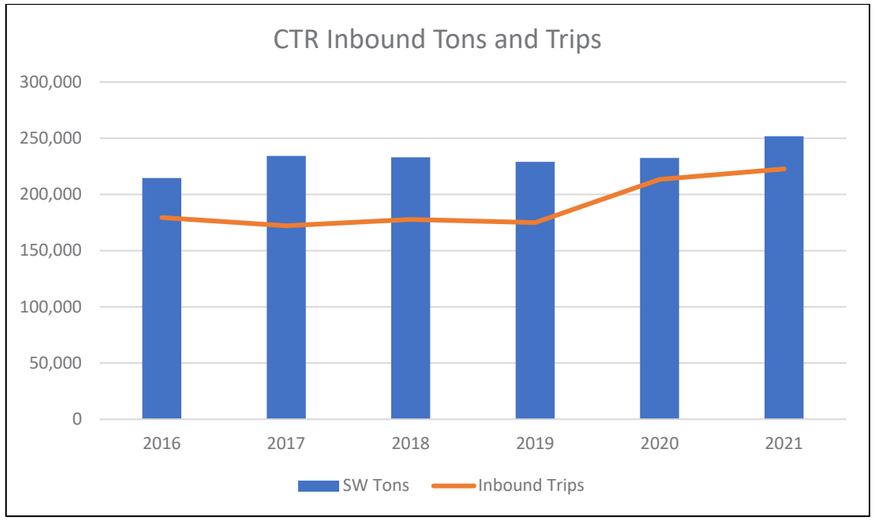
The limited structural and site improvement condition assessment reveals that most of the assets at the site are in fair to good condition, except for the recycling building, paved areas east of the boundary retaining wall, and the infiltration portion of the stormwater system. The complete report is included as Appendix B, *Conditions Assessment* in the Phase 1 RSWSS Report.

Structural and civil condition assessments were limited to those areas that are readily accessible and visible to the field staff. Concealed conditions that become exposed in the future may change our current recommendations.

Waste Quantities and Traffic Counts

Tons received and traffic volume at CTR were updated with 2021 data. **Figure 10** illustrates that both waste received and traffic on-site continue to grow at CTR. This data was used to make projections for the Basis of Master Plan recommendations.

Figure 10: CTR Inbound Tons and Trips



Site Circulation and Unloading Stall Capacity

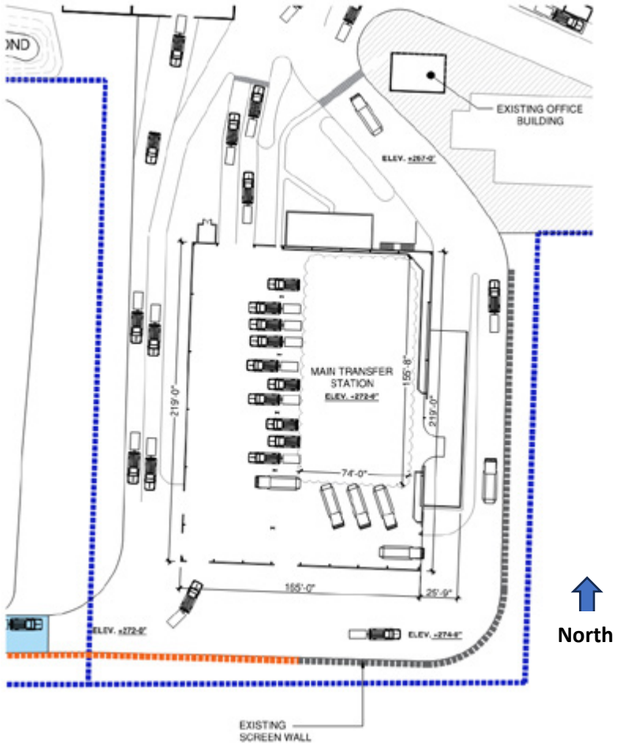
When CTR was constructed in 1991, it was not designed to accommodate the current levels of traffic, or the different activities and services currently provided.

Daily traffic at CTR averages 50 to 60 vehicles per hour. An unloading stall is expected to handle six vehicles per hour, giving 10 minutes per vehicle to maneuver into the stall, unload, and exit. Some vehicles, such as cars and pickups with less waste, will unload faster. However, vehicles with trailers and those with hydraulic tippers typically take longer. Therefore, in non-peak times, 10 to 12 stalls are sufficient for unloading.

During peak times, customer traffic can increase from 80 to as many as 100 vehicles per hour. At this volume, the facility would need to dedicate a minimum of 13 stalls for unloading during peak weekday times and 17 to 20 stalls during peak weekend times. **Figure 11** on the next page shows the tipping floor and vehicle unloading capacity (north is the left side of the figure). With the two northernmost stalls dedicated to source-separated cardboard, green waste, and clean wood (red circled area), there are only 11 stalls for unloading waste. On weekends, CTR can use the south drive aisle to route vehicles to unload. After unloading, these vehicles will exit the southeast door (blue circle) and drive to the outbound scale (green circle).

Also depicted in **Figure 12** is how transfer trucks, when loaded, exit the facility. The truck and trailer must intersect with other outbound traffic and will need to access the scale.

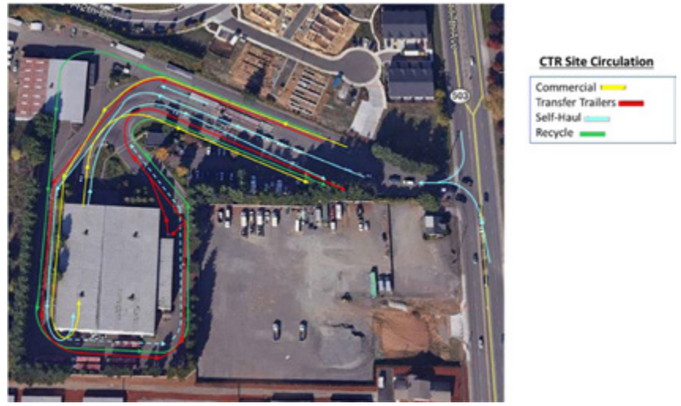
Figure 11: Tipping Floor Capacity



CRC does a good job managing traffic and ensuring vehicles can safely unload in the transfer station. Spotters are located at the entrance and on the tipping floor to guide customers to the appropriate stalls. Although the current facility does not have enough stalls to unload quickly during peak times, there is space for customers to queue onsite before entering the transfer station. However, when exiting the transfer station from the southeast door, there is approximately 550 ft before the outbound scale, queue space for 20 to 22 vehicles. Routing vehicles in this direction can reduce the traffic queue exiting the transfer station. However, there is only one scale dedicated to processing all outbound customers and to weighing out transfer trucks.

The amount of customer traffic on weekends and during peak seasons also impacts the overall site circulation. The primary place of congestion is the outbound lanes before the scales. As shown on the site circulation map in **Figure 12**, all traffic must converge on two lanes including transfer trucks loaded with containers bound for the Tidewater loading dock.

Figure 12: CTR Site Circulation



Outbound traffic conditions may be improved by decreasing the time to process customers; however, the physical space for vehicles to line up to be weighed out as well as those to use the bypass lane is very limited. If the station is to make improvements to eliminate the off-site queue, it would also be desirable to consider modifications to remedy both the outbound scale capacity issues and the site circulation restrictions.

Impacts of Growth Management in CTR Service Area

Clark County has grown about 2% per year since 2010 (approximately 78,000 people from 2010 to 2020), and based on recent data from OFM, it is expected to continue at this rate for the next 20 years. The central and northern portions of the County, served by CTR, are expected to experience most of this growth, as predicted in the Growth Management Plan. The updated waste projections show that projected growth for this area could result in more than 100,000 tons of additional waste being generated per year in the next 20 years.

Growth has resulted in increased development of adjacent properties around CTR. The apartment complex on the northside of CTR has expanded, and now sits within 15 ft of the north retaining wall. Property on the west side of 112th street has been developed with new single-family houses. On the south side of the transfer station, a storage unit facility and private school were recently constructed. CRC owns eight acres located on the west side of CTR, providing a buffer between the new residential development and the transfer station. A new scale complex designed to eliminate off-site queueing problems is proposed by CRC for this property. These recent changes in the development of adjacent properties will need to be considered in deciding future changes to operations and future facility improvements.

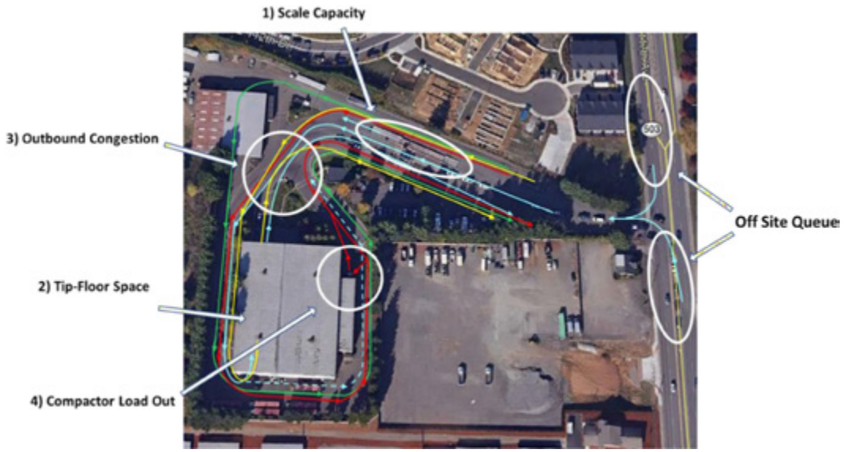
CTR continues to experience increases in total waste volumes and the number of customers using the facility. The following is updated data that shows the increase over the past two years. Also, CTR is the only transfer station open on Sundays and therefore must serve the entire County. The traffic on weekends may be impacted if the County decides to expand the hours of operations at the Washougal and West Van transfer stations.

Considering the increase in volume and number of self-haul customers, CTR is currently at operating capacity. This operating capacity is based on current waste quantities and hours of operation at about 900 TPD. If the waste exceeds the capacity, CRC will process the waste to ensure it is removed from the tip floor and not stored overnight. There were several observed deficiencies during the consultant team's site visits and review of data. It is important to understand that these deficiencies are a result of the physical conditions and limitations of the original design to handle the increase in customers and waste volume experienced over the past 30 years. CRC executes day-to-day operations to manage the current waste streams and traffic in a safe and efficient manner, given these physical constraints.

Based on the assessment of current operations, the following site constraints and deficiencies were noted (as shown in **Figure 13**).

1. **Scale Capacity:** CRC is considering adding a second in-bound scale to increase thequeuing for in-bound traffic.
2. **Tipping Floor Space:** The current facility does not have sufficient space for vehicles to unload and limited space to handle surges in waste volumes.
3. **Congestion at Exit Lanes:** All traffic exiting the site must make a left turn into two outbound lanes. Transfer trucks are subjected to a hairpin-like turn and therefore use both lanes to access one outbound scale. The competition for the outbound scale and exiting is not a desirable condition and is exacerbated by the increase in waste quantities and increase in self-haul traffic.
4. **Compactor Load-Out Capacity:** With the current operating hours (12 per day), the compactor can only loud out about 900 TPD. CTR averages between 800 and 900 TPD. There are some days during peak periods where CTR receives between 900 and 1,100 tons. CRC reported that on occasions when waste of more than this capacity is received, they will load this material into trailers/containers to ensure it is not stored overnight.

Figure 13: CTR Operations Assessment



6.3 Summary of Phase 1 CTR Conditions and Recommended Improvements

The CTR was not designed to handle the current waste volume and traffic conditions. The demand for services has increased greatly, particularly in the past five years. CTR is centrally located, has been well-maintained, and is in relatively good condition. There are improvements that can be made to not only deal with the current off-site queue, but also to improve overall site circulation and enhance the material handling needs. Changes could include expanding the transfer station building to provide space for unloading and floor storage. The additional areas would provide space for unloading C&D waste for processing that could divert this material from the landfill. Added space to handle green waste and wood could also contribute to higher material recovery. The key question to address is what level of investment should be made at CTR in conjunction with other regional service needs.

The answer to this question remains to be determined. In Phase 1 RSWSS, Chapter 5 – North Area Service Options presented what facilities are needed to serve this area. In Chapter 5, four options were developed.

Drawings for those can be found in Appendix A of the RSWSS. The report identified two short-term improvements and settled on Option 1.

The most immediate need identified in the system was to make improvements at CTR to address safe ingress and egress off Hwy. 503. The first step was to modify the entrance to allow for two separate lanes entering the facility. This improvement was completed in 2022 and there are no left turns permitted when exiting the station. Now all vehicles exiting CTR can only turn right and travel south on Hwy. 503. Customers originating from north of CTR, such as Battle Ground, Ridgefield, La Center, and Yacolt must find a route to return to the north county.

The second improvement recommends extending the inbound lane to the back of the site and installing a new scale. The lane would extend to the south side and ramp up to the existing transfer station as shown. It would provide the added queue space needed to eliminate any vehicles from queuing off-site onto the highway. This would allow customers to travel a much longer entrance road to a new scale for weighing in. The perimeter screening would also be extended to mitigate visual impacts to adjacent properties.

6.4 Basis of Master Plan for Facility Improvements

Based on the findings from Phase 1 RSWSS and the recently passed HB 1799, the updated design data in the following **Table 7** is recommended to be the basis of the CTR plan. This Basis of Master Plan considers that new census data and waste quantities received have resulted in new projections.

Table 7: CTR - Basis of Master Plan Design Data (Updated per 2020 Census)

Category		Existing Transfer Station	Future (20 Years)
Building Space			
		38,000 sf - 36,136 excl. loadout	Space need defined by criteria
Waste Quantities			
Annual	Tons	251,847	353,263
Average	Tons/Day	900	1,200
Peak	Tons/Day	1,100	1,400
Traffic/Unloading Capacity			
Commercial	Ave Per Day	100	130
	Ave Per Hour	25	30
Commercial Stall		4 to 5	5
Self-Haul Weekday	Peak	600	780
	Per Hour	70	90
Weekday Stalls		14	18
Self-Haul Weekend	Per Hour	100	130
Weekend Stalls		20	26
*Assumes 1 stall is 5 cars an hour	-	-	-

Category		Existing Transfer Station	Future (20 Years)
Operating Space			
Available area to stack waste, handle surge, and load trailers. Excludes maneuvering and stall for unloading			
Need		13,000 sf	18,000 sf (1 day storage + 10% operations)
Available		11,000 sf	
Average		900 TPD	1,200 TPD
		30 ton payload	
		30 trailer loads	
		25 minutes 12.5 hours*	16 hours @ existing
Peak		1,100 TPD	1,400 TPD
Required load out w/single compactor		15 hours*	20 hours @ existing
*Assumes no disruptions			
Trailer Parking			
		Space for 4	Assume 8 trailers for staging
		Minimum 6,000 sf	12,000 sf
Scale Capacity/Transactions			
Inbound - 1 - SH scale		80 vehicle/hour	120 vehicle/hour
Outbound - 1 SH scale shared with transfer trailers		80 vehicle/hour	120 vehicle/hour
*Note both inbound and outbound scales at 45 seconds/transaction		-	-

The data shows it will be necessary to provide a second compactor in the future to allow load out of materials in reasonable operating hours. It is also needed to have redundancy in the load out operations.

Organics Management

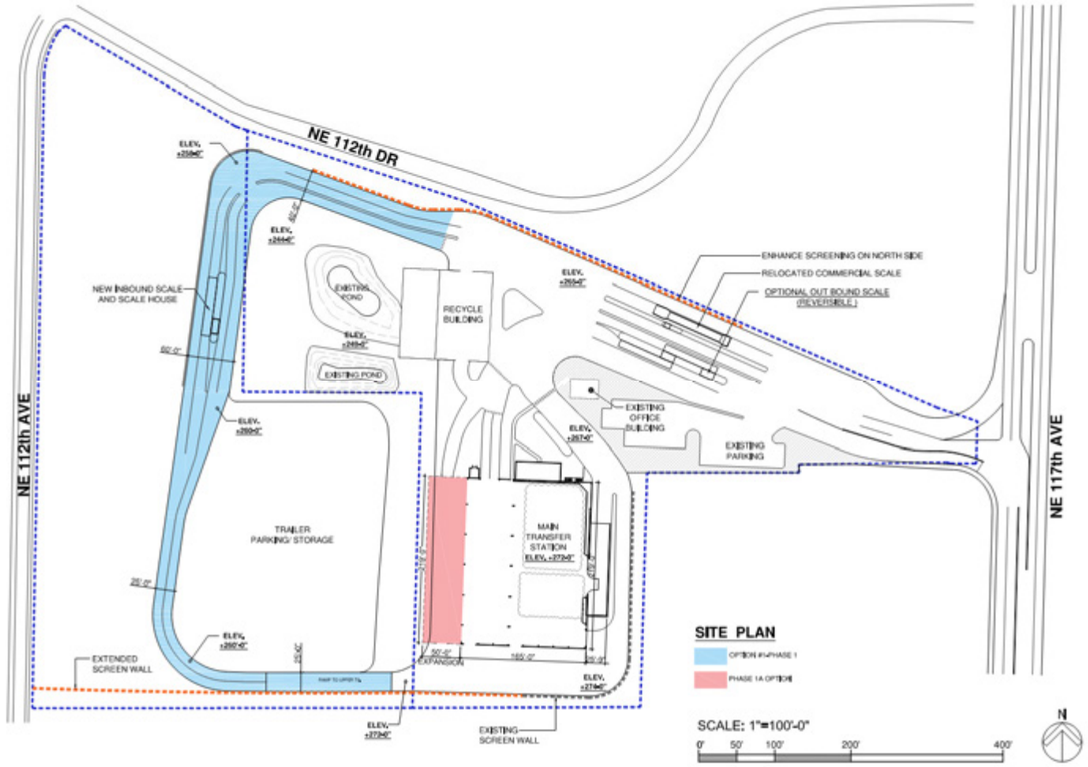
CTR processed approximately 1,500 tons of yard debris in 2021 and no source separated commercial food waste. This material is reloaded and sent to Dirt Hugger, a compose facility in Dallesport, WA. With the passed HB 1799, the design for CTR will include the continued collection of yard debris and provide options for expanding reload capacity in the future. The site as currently used is not supportive of any preprocessing options for organic material.

Prior to making any large investments at CTR a decision on which option is best for serving the north/central county should be implemented. However, each of the options will require several years to site and permit. Even after permits are secured final design and construction will require a minimum of two to three years.

6.5 CTR - Phase 1 Improvements

Given the timeline to decide on the future facilities needed to serve the north service area, improvements at CTR should be implemented to eliminate potential for offsite queueing onto Hwy. 503. Also, the option to expand the existing structure and provide added tip floor space may be beneficial in both the short run and for the long term if Option 1A is selected. See **Figure 14** below.

Figure 14: CTR Improvement Option



Phase 1

1. Add two new inbound lanes to a new scale house to increase curing length for vehicles entering the site. The road will extend and wrap around the landfill portion of the site and reduce traffic backing up onto Hwy. 503.
2. Install a new scale (relocated) and scale house in the east portion on the new road improvement.
3. Extend concrete wall along south side of site where improvements have been made.
4. Improve site screening along the north side of the property.

Phase 1A (Optional)

1. Conduct comparative site analysis and expand the transfer station building with a 11,000 sf addition in the event a new station is not sited or delayed in the North Service Area.

Table 8: Phase 1 Construction Cost Estimate

CTR Construction Cost Estimates	
New Perimeter Road and Gatehouse Description: 1. Site Work 2. New Scale and Scale House 3. New Access Road	**$3,500,000**
Option 1A – Transfer Station Expansion Description: 1. Demolition and Site Prep 2. Optional Outbound Scale House 8'x8'	**$3,000,000**
Total Estimated Construction Cost Excluding Option 1A	**$3,500,000**
Total Estimated Construction Cost Including Option 1A	**$6,500,000**

6.6 CTR - North Service Area Options

Implementing the construction of the recommended improvements is a priority for the County to mitigate queueing onto public right of way. To address the question of how to best serve the north and central portion of the county, the Phase 1 report evaluated the options for serving the north service area. These three options were compared to the options for making improvements at CTR. The north-central portions of the County are projected to experience the largest percentage of growth over the next 20 years. This growth has resulted in increased waste volumes and traffic at CTR and the need to make investments in facilities to manage the current conditions. However, to improve current deficiencies at CTR and manage future growth in this service area, additional investments in the system will be necessary. Updated projections show an increase in volumes to all County facilities with CTR expected to experience an increase of more than 100,000 TPY or 40% by 2040. The options for meeting the future infrastructure needs of the northcentral County were identified in the Phase 1 report.

The three distinct options identified are summarized as follows:

1. Make major improvements at CTR to address current and future service needs.
2. Make minimal improvements at CTR and site and build a new satellite transfer station to serve the northernmost portion of the County and relieve some of the customer traffic using CTR.
3. Replace CTR with a new transfer station designed to handle future growth. This alternative recognizes the need to minimize impacts to the residential properties adjacent to CTR; it is important that CTR be a good neighbor.

For each option, conceptual facility plans were developed to provide planning level construction cost estimates.

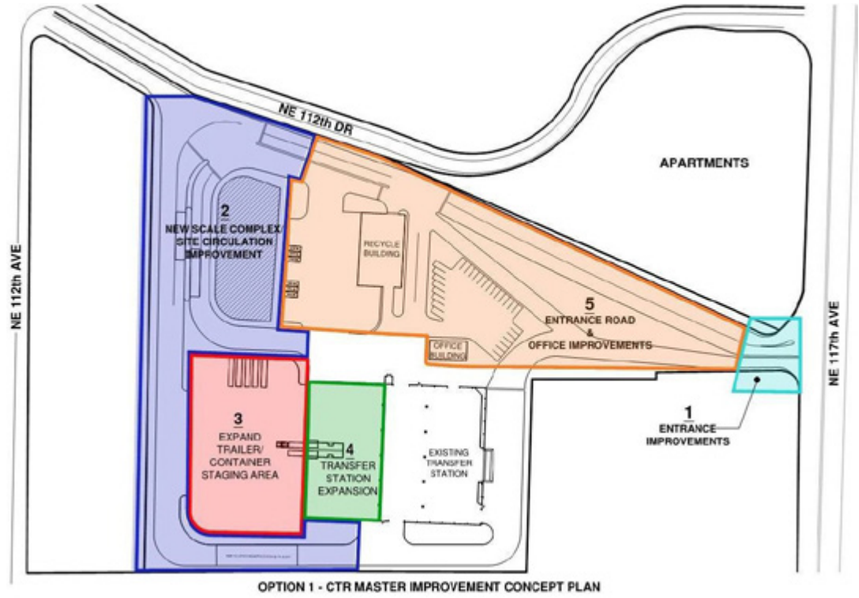
Decisions on a new transfer station and whether to move the MRF to a new location from its current location at West Van have not been made since the Phase 1 report was finalized. There has also been no decision made on the ownership of the facilities, so a summary of each developed option is as follows.

Option 1: Make Major Improvements at CTR to Address Current and Future Service Needs

This option assumes the CTR Transfer Station will make major improvements to address the current operational deficiencies and provide the infrastructure to manage waste resulting from growth in the central and northern part of the County. Improvements at CTR will be made to meet capacity needs for the next 25 plus years.

JRMA prepared several concept site plans that incorporate significant improvements to meet the needs of CTR's future conditions. These have been reviewed by the County and CRC and are the basis of the improvements listed; however, more analysis is needed to develop a final site master plan. A primary guiding principle in developing the new site plan has been the need to construct the facilities while maintaining the current operations. Therefore, the intent of the infrastructure improvements is to meet the capacity needs in a phased approach so that the facility can remain open to customers during the construction period. These improvements are captured in **Figure 15** below.

Figure 15: Option 1 – CTR Improvements



The option to expand CTR was used in the Phase 1 RSWSS to identify the capital investments needed to address near term deficiencies in current operations and to evaluate the best approach for expanding the facility to meet demands of the north services area. To meet this demand, the facility would require expansion onto the adjacent property owned by CRC. As a result, the report identified several issues that need to be addressed prior to making a final decision on whether to expand CTR.

First, this adjacent property would need to obtain a land use permit to allow the planned expansion. This may also require that a lot line adjustment to enjoin the two properties be approved. Recognizing that the adjacent

properties are now zoned for residential and have been developed will need to be considered if CTR is to expand onto adjacent property. In contrast, if a decision was to close CTR and build a new transfer station it also is subject to a siting and permitting process.

Second, the adjacent property is believed to have been part of an old landfill that closed many years ago. This raises questions as to what impacts these conditions may have in redeveloping the adjacent parcel. Further investigation into the subsurface conditions should be completed.

Third, the only access to the facility is off Hwy. 503, a major north/south transportation corridor in the County. The entrance to CTR has been improved to enhance safe ingress and egress by eliminating the left turn for outbound traffic. Also, the Washington Department of Transportation will not permit a traffic signal to be installed. Thus, the site will need to contend with the high traffic volume on a long-term basis with the current entrance. Although certain improvements included in the site plan can relieve queueing onto the public right of way, traffic on Hwy. 503 will increase as the north area of the county grows.

Option 2: Make Minimal Improvements at CTR and Site/Build a New North SatelliteTransfer Station to Accept Primarily Waste from Self-Haul Customers

This option assumed minimal investments at CTR as described in Phase 1 and 1A improvements. The improvements will enhance onsite conditions to handle existing traffic. It recognized that adding any more traffic with access off Hwy. 503 and accepting more waste at CTR as the region grows is less desirable. However, CTR is centrally located and with minimal investments, the facility can handle current traffic more efficiently. **Figure 14** on page 36 depicts the proposed improvements to the existing CTR facility to address the immediate needs.

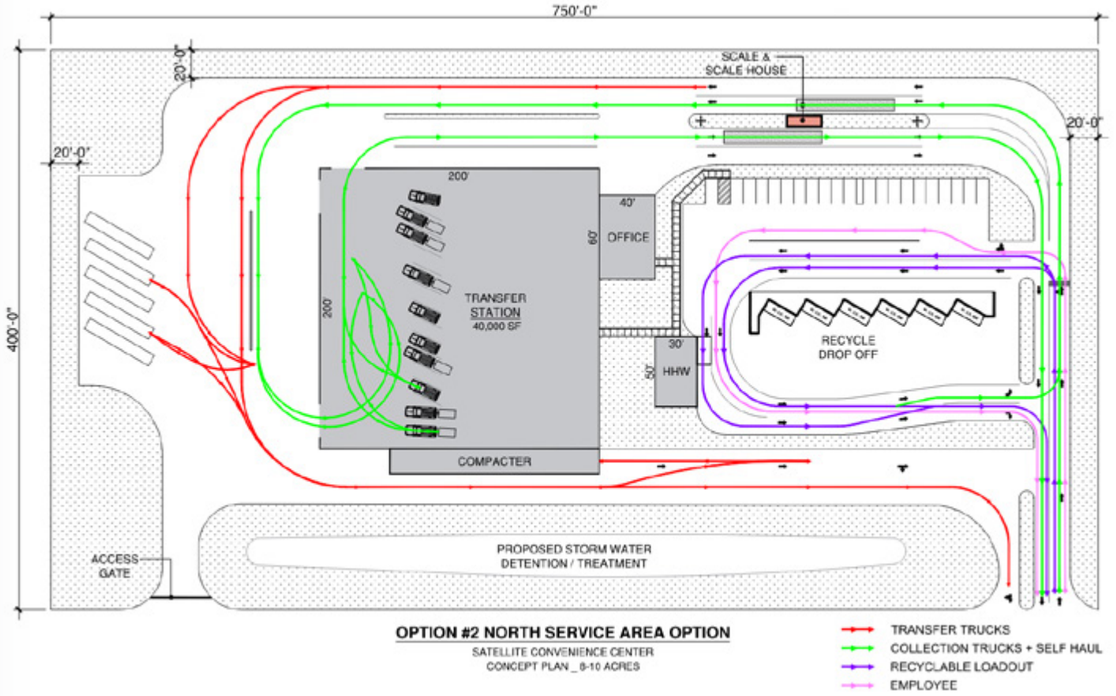
These are minimal improvements to mitigate near-term operating deficiencies, assuming a long-term plan of siting and building a new satellite transfer station /convenience center to serve the north area.

The expanded transfer station would serve to improve overall operations until a satellite station was sited and constructed. Under this approach once the satellite station is operational, CTR would only receive waste from commercial collection trucks. This would positively impact neighbors by reducing traffic since the facility would not receive waste from self-haul customers. Also, impacts on neighboring properties would be greatly reduced on weekends with no self-haul traffic and limited operations. These improvements will mitigate current traffic issues until a new satellite or convenience center is operational.

Option 2 includes siting a satellite transfer station often referred to as a “convenience center” to receive waste from self-haul customers. The new convenience center would be a smaller structure but large enough to ensure capacity to handle future growth. Typically, convenience centers are open seven days per week but the days and hours for operations can vary depending on the local jurisdiction’s policies and practices.

Figure 16 on the next page shows a concept plan for a typical satellite facility. This concept plan has been updated from the previous plan included in Phase 1. The actual size and site configuration will vary based on local conditions and determined by the desired services to be provided.

Figure 16: Option 2 – CTR Satellite Station



Features for a new northern area satellite transfer station may include:

1. A minimum site of six acres of commercial/industrial zoned property is located on a minor arterial road. However, it would be desirable to have seven to ten acres.
2. A new convenience center/transfer station (estimated to be approximately 16,000 to 20,000 sf building) to handle up to 400 TPD.
3. Recycling/HHW drop-off center.
4. Scale complex with one inbound and one outbound scale and gatehouse.
5. Top load trucks from the floor and no compactor.

It would be expected to take a minimum of three years to site and permit the new facility, but this is just an estimate, and permitting a new site could be longer depending on local zoning requirements. This assumes that conducting the siting process with public involvement would take 12 to 18 months. The timeline for zoning approval would be similar (12 to 18 months) considering it would require a conditional use process. Design and construction would occur over two years meaning a new facility may take a minimum of five years before it would be operational.

Benefits of this new north area facility include:

1. Improves onsite queue and circulation issues at CTR.
2. Increases scale capacity and assumes new scale house software to improve transaction times.

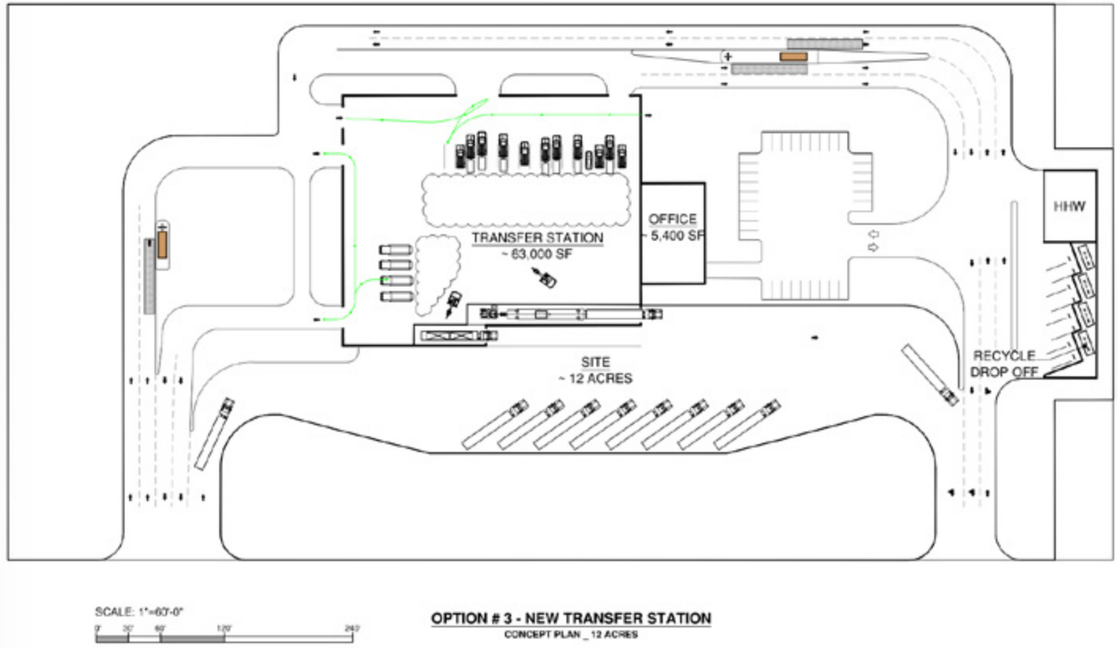
3. Increases space to provide needed stalls for self-haul and cash customers to unload more safely during peak conditions.
4. Provides some separation of self-haul vehicles from WCW collection trucks under peak conditions.
5. May increase needed capacity to loadout waste.
6. Provides additional floor space for flexibility in managing different waste streams.
7. Adds new facility to serve the fastest growing area of the County.
8. Eliminates self-haul customers at CTR which reduces operating hours and days, benefiting neighbors.
9. Reduces overall traffic at CTR and may reduce drive times for self-haul customers when a satellite facility is operational.

Option 3: Replace CTR with New Transfer Station at a New Location

The CTR Transfer Station was not designed to handle the traffic and quantities of waste currently received. Over the past five years, there have been many new developments in the surrounding properties. This includes new residential developments as well as a new school and church. With the expected growth, the County may decide that it may not be the best long-term site to invest in. One option is to make minimal investments in CTR to address immediate operational needs and establish a new location to serve the long term.

To provide future waste management and recycling services, a modern transfer station would be sited and constructed. Ideally, the new station would still be somewhat central to most of the population it serves and be located on commercial /industrial zoned property with access off an arterial or major collector street. It would be located to serve the current service area as well as the growing area of the North County cities. **Figure 17** on the next page shows the proposed concept site plan for a new transfer station to replace CTR.

Figure 17: Option 3 – New Transfer Station



The following describes the key features of a new transfer station:

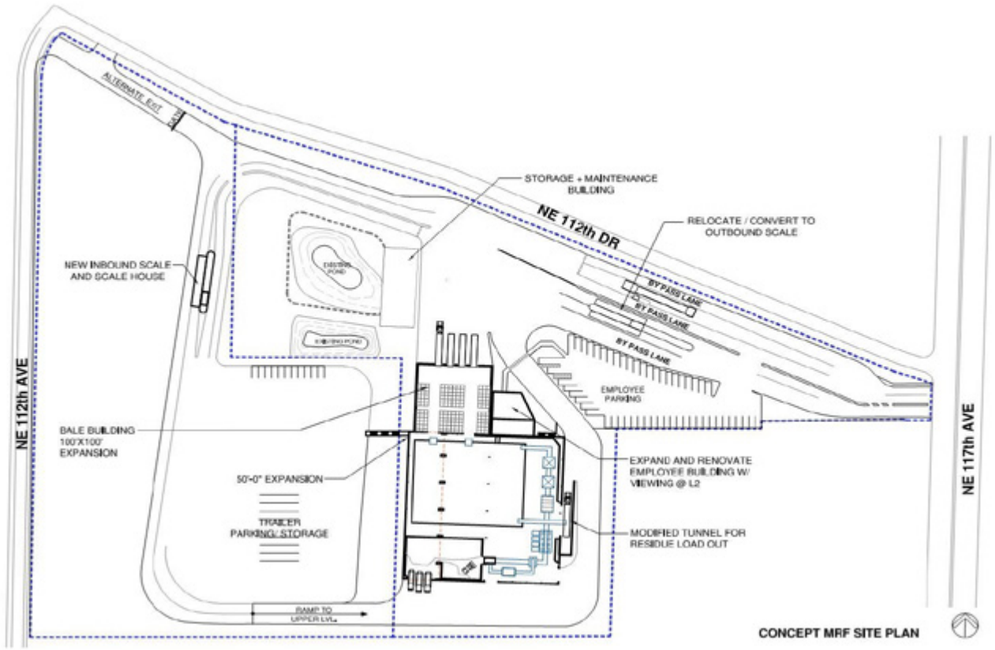
- A minimum site of 12-acres of commercial/industrial zoned property located on a minor arterial road.
- A new transfer station building (approximately 70,000 sf building) to handle up to 1,500 TPD.
- Minimum of two (2) load-out ports equipped with compactors and one top load port to be used as backup and for other materials.
- A recycling/HHW drop-off center.
- Preferably a separate or split access drive for collection trucks to separate from self-haul traffic for safety reasons.
- Separate scales for weighing collection trucks with RFID readers and the capability to weighout vehicles.
- Parking area for staging trailers and containers.
- Office and employee break/restroom and training area.
- Possible education center for tours.

This facility would also incorporate green design features such as natural lighting, recycled-content building materials, water conservation features, renewable energy features, modern odor, and dust control systems.

6.7 Option to Convert CTR into a Materials Recovery Facility

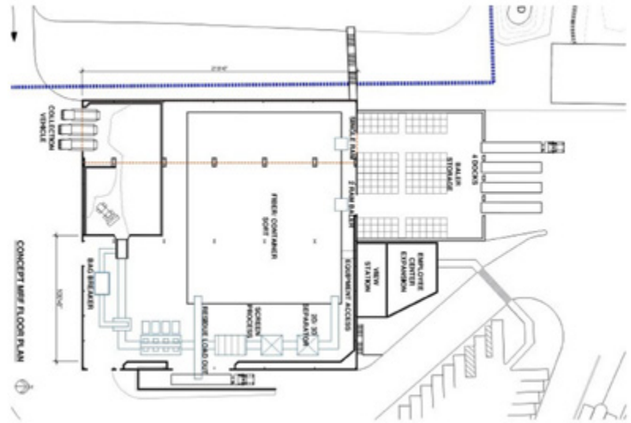
If Option 3 was implemented and CTR was closed to receiving MSW from both commercial collection trucks and self-haul, one option to consider would be to repurpose the facility into a MRF. Re-purposing CTR would result in lower system costs since to site, permit and construct a MRF at a new location would require more capital. **Figure 18** shows a concept for converting CTR to a new MRF.

Figure 18: Concept MRF Site Plan



As shown on the conceptual floor plan the primary expenditure to convert CTR would be to expand the structure by adding a bale storage and shipping building on the north side.

Figure 19: Convert CTR to MRF - Floor Plan



Organics Management for North Service Area

Pending an organics feasibility study, it is recommended that space be allocated for the collection of both yard debris and source separated commercial food waste for reloading in any proposed facility. In the event of the siting of a full service transfer station, proper space should be allocated for preprocessing equipment to provide flexibility.

Estimated Construction Cost for North Service Area Options

Investments in the future needs of CTR beyond Phase 1 and Phase 1A (optional) will need to be made depending on the negotiations with CRC and the County and consideration of options relating to the North Service Area Options. The options for consideration have been described previously. The summary of the three options are:

- Option 1: Make Major Improvements at CTR to Address Current and Future Service Needs.
- Option 2: Make Minimal Improvements at CTR and Site/Build a New North SatelliteTransfer Station to Accept Primarily Waste from Self-Haul Customers.
- Option 3: Replace CTR with New Transfer Station at a New Location.

Option one has some issues that would make it an unlikely choice. At the back of the property is an old inert landfill and stability for building is questionable on this part of the site. There is also a different zoning for the back lot of CTR meaning a conditional use review would be needed to develop it and the neighborhood characteristics have changed since the site was first developed making any expansion much more difficult. It is recommended that the County conduct further evaluation of these options once negotiations are complete. A decision on the MRF could also influence preference for one option over another. With the second two options being the most likely of the three, preliminary costs of those were developed.

North Service Options (New Transfer Station or Satellite Convenience Center)

Construction costs are estimated to be $18M to expand CTR. This does not include the cost for the Phase 1 improvements to add a new perimeter road and scale at CTR of $3.5M. The options to site a new transfer station range from an estimated $25M for a smaller convenience center to $34M for a totally new transfer

station to serve the north service area for the next 25 years. It is recommended to proceed with the Phase 1 improvements at CTR and further evaluate the North Service Options in order to develop a planned approach for future growth and needs in the County.

Construction cost estimates were made for each phase of the capital improvements for the West Van Transfer and Recycling Facility. These estimates are based on construction costs for specific items from projects completed in Clark County or similar projects in the Pacific Northwest in 2023. The cost estimates represent a "Class 3 planning level" cost estimate meaning it carries a variance range of plus 30% to minus 20%.

Table 9: Construction Cost Estimate – North Service Options and CTR

North Service Option and CTR Construction Cost Estimates	
New Transfer Station	**$34,000,000**
Satellite Convenience Center	**$25,000,000**
CTR Expansion (Excludes Option 1A)	**$3,500,000**

6.8 Recommended Implementation Schedule

It is important to **expedite the construction of the Phase 1 improvements** to eliminate vehicles from queueing on to Hwy. 503. The County, working with its partners, will need to **further evaluate the options for serving the north service area for the long term.** More information related to the potential of developing on the adjacent parcel just west of CTR is needed as well as evaluating options to site a new transfer station. The County will need time to make any decisions and it may take several years to permit any of the options so Phase 1 improvements will be crucial. The CIP can use the planning level cost information to prepare a financial plan to fund the ultimate decision for building the facilities needed to serve the north service area.

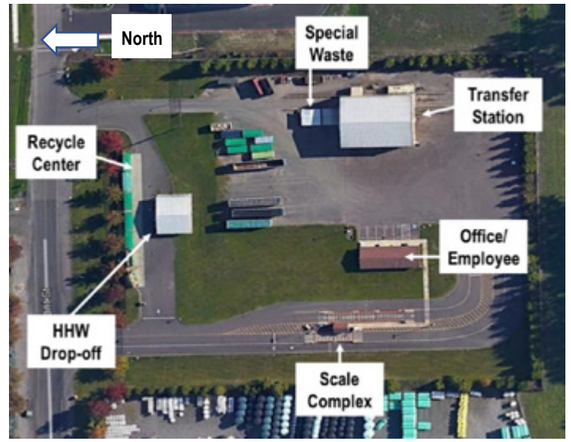
Chapter 7 – Washougal Transfer Station (Washougal)

7.1 Introduction

Washougal began operations in 2009 and is operated by CRC. The facility is located on a 4.6-acre site in the Port of Washougal. Customers enter from Grant Street to a scale house complex that includes one inbound scale and one outbound scale. Each customer must be weighed, and fees are assessed based on total waste disposed. The facility includes an 80-by-60-foot transfer station building (4,800 sf) for customers to unload waste. Transfer trucks enter the east side through a depressed tunnel for loading trailers that are transported to the Wasco Landfill in The Dalles, Oregon. The station operates as a lift-and-load, meaning the bottom of the tunnel is only eight ft below the tipping floor. A front loader is used to lift waste about nine ft to load trailers. This operation does reduce the time to load trailers, but waste can spill off the sides and onto the tunnel floor, which requires regular cleaning.

The transfer station has three (3) 22-foot-wide access doors located on the west side where collection trucks unload. This design allows for up to six (6) vehicles to unload at one time. The layout of the facility is shown in **Figure 20.**

Figure 20: Current Washougal Site Plan



The facility is open six days per week (Monday-Saturday) for commercial collection trucks from 7 a.m. to 5 p.m. The transfer station is open to the public and self-haul traffic on Wednesdays and Fridays from 7 a.m. to 5 p.m., and Saturday from 8 a.m. to 4 p.m. When the facility is open to self-haul customers commercial collection trucks can use a 22-foot roll-up door on the south side to unload.

The facility also provides a drop-off center where customers can bring commingled and source-separated materials to recycle. The drop-off center is open to the public Monday through Friday from 7 a.m. to 5 p.m. and Saturday from 8 a.m. to 4 p.m. Customers can drop off HHW every third Saturday of the month from 8 a.m. to 4 p.m.

In Phase 1 RSWSS, an assessment of the conditions of Washougal was conducted. Some minor repairs are required but primary structures and site appear in good condition.

7.2 Summary of Phase 1 RSWSS – Assessment

The assessment of the transfer station operations was made on Wednesday, February 12, 2020. The site visit included a meeting with the site manager and a review of current conditions. This operations review focused on how the site manages traffic and waste handling and loading under the present conditions. The assessment will consider how the current facilities can manage future waste volumes and traffic to service the eastern portion of the County. During this same visit, a physical condition assessment was made by structural and civil engineers. A full report of the physical site conditions is presented in RSWSS Phase 1 Report Appendix D, Conditions Assessment (see Appendix L).

Conditions Assessment

The limited structural and site improvement conditions assessment reveals most of the assets at the site are in good condition except for areas of pavement, which are in fair condition.

- The transfer station is in **good** condition. Siding damage behind the trailer lift-and-load area was observed. The damage is not structural. However, the damaged siding should be repaired to prevent potential corrosion problems due to moisture penetration.
- The HHW canopy, the scale house, and the administration office are in **good** overall condition. No short-term action is needed.
- The gravel storage area is in **good** condition. No short-term action is needed.
- The public recycling area is in **good** condition. Small areas of cracked pavement were observed. No short-term action is needed. The cracked pavement should be repaired in the future.
- The drive aisles that course through the site are paved with asphalt concrete pavement. In general, the paving is in **good** condition except for in the truck maneuvering areas. We recommend the worn surface areas be repaired or replaced.
- The storm facilities, the sanitary system, and the water system are overall in **good** condition. No short-term action is needed.

The structural and civil conditions assessments were limited to those areas that are readily accessible and visible to field staff. Concealed conditions that become exposed in the future may change our current recommendations made here.

Operational Assessment

In Phase 1 during the site visit, the site manager for CRC reported the facility has no significant operating deficiencies. At times, traffic can back up to the street, but it is not a routine condition. However, this is based on the number of customers and waste volumes having remained similar in the past few years. With moderate growth in customer traffic on Wednesdays and Saturdays, additional unloading stalls are needed. Based on recent data in 2021, the number of inbound trips has increased by nearly 25% since 2019 placing a demand for providing more stalls to unload.

It was reported that commercial trucks will unload using the south door. Waste can then be pushed and lifted to dump into trailers on the east side of the building. Because the building is only 60 ft wide with only 45 ft available for storage of waste at certain times, waste can spill out of the building temporarily. This is not a routine event but is an indication of the limited surge or storage capacity of the station. On days when self-haul customers are unloading, there could be interruptions from unloading until the waste is clear from the tipping floor to allow self-haul access to certain stalls.

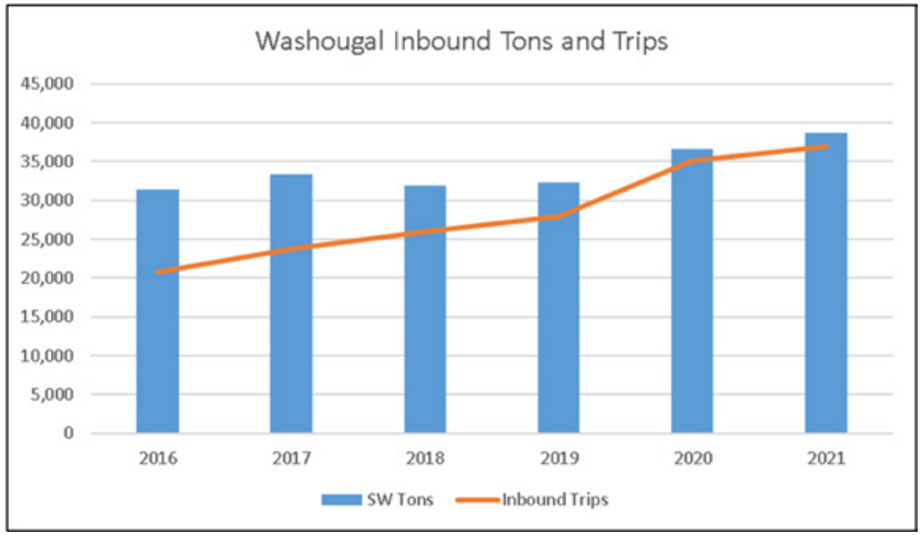
The recycling and HHW drop-off areas are accessible from Grant Street, even when the station is closed to self-haul customers. The overall space is sufficient for managing the recycling needs of the community.

Likewise, the HHW facilities are sufficient for managing materials dropped off. The only drawback is that when the HHW is open, traffic can back up and temporarily impede access to the recycling drop-off area. Fortunately, the HHW facility was designed to allow for two drive-through lanes for customers.

Washougal tons, trips, and capacity is based on the 2021 data. Washougal receives on average about 125 TPD assuming a six-day week operation and 150 TPD if a five-day operational week is assumed. The five-day average should be considered as most of the waste is received during this period. Most customers on Saturday are self-haul vehicles that have small loads.

As shown in **Figure 21** both the trips and total tons received have increased steadily over the past three years. This table has been updated with current numbers from the original Phase 1 report.

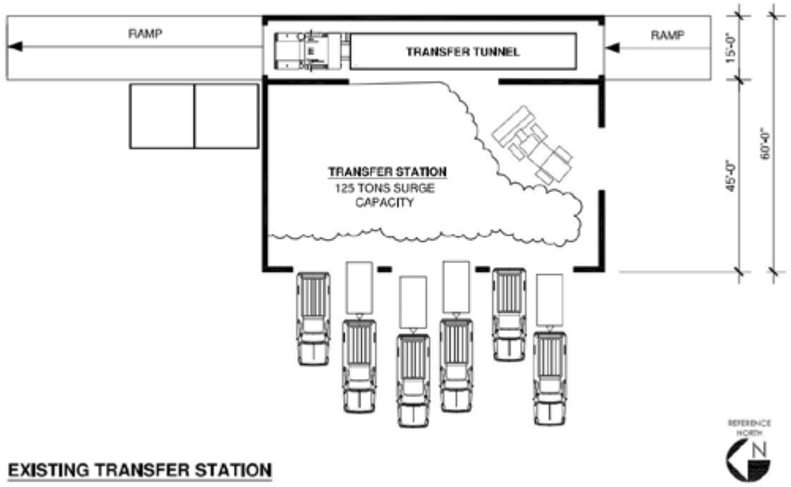
Figure 21: Washougal Inbound Tons and Trips 2016-2021



Existing Tip Floor Operation

The existing tip floor operation shown in **Figure 22** on the next page consists of an area that is approximately 40 ft x 60 ft or 2,400 sf. Accounting for the area to operate equipment to load transfer trailers leaves about 2,000 sf of surge capacity assuming no vehicles are unloading in the building. If the station receives 125 TPD the surge capacity requires about 1,700 sf to temporarily store waste. If the station receives 150 TPD, the needed surge capacity increases to 2,000 sf based on the current waste volume received the facility is basically at full capacity.

Figure 22: Washougal Existing Tipping Floor



Likewise, there are only six stalls available to unload the self-haul customers on the west side of the station. Based on 2021 data, Washougal receives about 200 self-haul customers per day over the three days of operation. This level of traffic suggests that six stalls is generally adequate for unloading this number of customers without causing major onsite queue issues. However, there could be certain times of the year where there are longer wait times to unload. During this period, the commercial trucks primarily unload on the south side of the station. Although the data suggest that a single stall is nominally adequate for unloading commercial collection trucks, it is more desirable to have at least two or preferably three stalls during peak hours. Some initial improvements were noted in the Phase 1 report. These include:

1. Expand the access lane to the HHW facility to improve traffic flow and safety.
2. Add a steel backsplash to protect the siding from damage caused from loading trailers and consider adding a short push wall on the tip floor side to increase surge capacity. This should reduce possible spillage of waste from the top-load operation.
3. Expand the transfer station building to accommodate future growth.
4. Increase the capacity of the scale complex and reduce potential of traffic backing onto Grant Street.

In the RSWSS Phase 1 Report (completed October 2021) it was noted that Washougal will need to be expanded soon. However, the County is currently considering the option to expand the number of days Washougal is open to receive self-haul customers. It is expected to help relieve some of the traffic issues at CTR. This decision may also impact the timeframe for expanding the existing Washougal Transfer Station as the tip floor does not have the capacity to handle more waste generated by growth or by decisions to expand the operating hours for self-haul customers.

Phase 2 – Washougal Facilities Plan

Using the preliminary analysis and findings from the Phase 1 RSWSS the facilities needed to serve the unincorporated eastern county and the cities of Camas and Washougal have been updated.

7.3 Basis of Master Plan for Facility Improvements

Based on the findings from Phase 1 RSWSS and the recently passed HB 1799, the updated design data in **Table 10** is recommended to be the basis of the Washougal Master Plan. This Basis of Master Plan considers that new census data and waste quantities received have resulted in new projections. Population in the two cities is expected to be approximately 50,000 in 2040. It is also assumed that another 50,000 people representing growth in the urbanized areas if east county and parts of the incorporated City of Vancouver may use the Washougal Transfer Station. Thus, for design purposes it is assumed that the amount of waste received at the station could exceed 80,000 TPY by 2040.

Currently the station averages 25 self-haul vehicles per hour. With a stall being able to handle five (5) vehicles per hour, the current need is five to six stalls. Based on projections of 50 vehicles per hour in 2040, the need increases to 10 stalls.

Table 10: Washougal - Basis of Master Plan Design Data (Updated per 2020 Census)

Category		Existing (2021)	2040 Projections	% Change
Waste Quantities (MSW)				
Annual	Tons	38,638	83,097	115%
Average	Tons/Day	125	290	132%
Peak	Tons/Day	150	350	133%
Customer Tons				
WCW				
All Commercial	Annual Tons	32,040	68,000	112%
	Ave Daily	120	193	
Self-Haul /Cash	Annual Tons	6,300	15,000	138%
	Weekly Tons (3 day)	121	288	138%
Trips				
All Commercial	Annual	7,220	15,000	108%
	Daily (5 day)	28	60	114%
Self-Haul/Cash	Annual	29,669	66,000	123%
	Ave Daily (3 day)	190	210 (6 day)	11%

Notes

#1 Source-Washington State – OMB

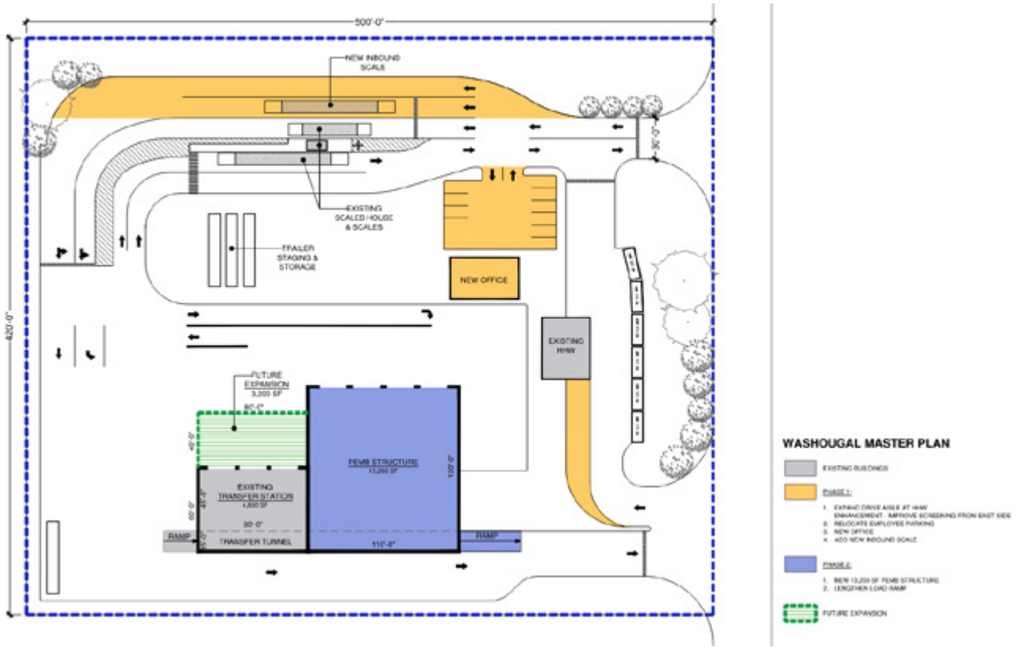
Organics Management

Washougal processed approximately 48 tons of yard debris in 2021 and no source separated commercial food waste was received. This volume is very little when compared to 32,000 tons of garbage collected on-site. With the passage of HB 1799, the design for Washougal will include the continued collection of yard debris and provide options for expanding reload capacity in the future. The site as currently used is not supportive of any preprocessing options for organic material.

7.4 Description of Improvements of Master Plan

To meet the needs of the service area, there are improvements that should be planned to provide more unloading stalls and to add tipping floor space. Additional load out capacity is desirable. This site map in **Figure 23** below shows four improvements to be included in the Capital Improvements Plan for Washougal.

Figure 23: Site Map Showing Improvements



These improvements are as follows:

1. A short-term improvement mentioned by the operator was to expand the access lane to the HHW facility. This is a minor investment to improve traffic flow and safety and could be completed in the near future.
2. Add screening on the east side of the HHW building to reduce exposure to the elements.
3. Add a steel backsplash and chute along the east side of the building in the load-out tunnel. This backsplash will protect the siding from damage caused from loading trailers. It should also reduce possible spillage of waste from the top-load operation. Also, consider adding a short push wall on the tip floor side to increase surge capacity.
4. Expand the transfer station by adding a new 13,200 sf PEMB structure and paving the yard to increase capacity. This will include expanding the below grade loading tunnel.
5. Expand the entrance road to increase the capacity of the scale complex and reduce potential of traffic backing onto Grant Street.
6. Build a new office or relocate the existing building and relocate parking.
7. Provide space for trailer storage and other storage.
8. Consider future expansion at the existing transfer station entrance.

7.5 Estimated Construction Cost for Washougal Transfer Station Capital Improvements

Construction cost estimates were updated from the Phase 1 Report. The primary increase in these costs relates to the updated Basis of Master Plan data that suggests the facility is currently operating above capacity both in managing traffic and waste flows. Traffic for self-haul customers has increased over the past two years and projections of waste to be received at the facility are significantly higher. Thus, a much larger expansion is required to meet this future demand.

Construction cost estimates were made for each phase of the capital improvements for the West Van Transfer and Recycling Facility. These estimates are based on construction costs for specific items from projects completed in Clark County or similar projects in the Pacific Northwest in 2023. The cost estimates represent a "Class 3 planning level" cost estimate meaning it carries a variance range of plus 30% to minus 20%.

Table 11: Construction Cost Estimate – Capital Improvement Plan

Washougal Transfer Station Construction Cost Estimates	
New Access Road and Scale/New Parking Description: 1. Expand the entrance road and install dedicated scale for commercial vehicles.	**$600,000**
New Transfer Station Expansion Description: 1. Construct a new PEMB structure (120' x 110'), extend transfer tunnel, build new office, or relocate existing office and create new parking for employees.	**$4,100,000**
Total Construction for Option w/ New Office	**$4,700,000**
Total Construction for Option Relocation of Existing Office Assuming Use of Existing Office (Reduces Total ~ $ 700,000)	**$4,000,000**
Total Estimated Construction Cost for CIP	**$4,700,000**

7.6 Recommended Implementation Schedule

This facility is already operating beyond capacity and should be a priority for the County. Design and construction for expanding the Washougal Transfer Station should be completed in the next three years. The master site plan does suggest a phased construction to enable the facility to remain in operation during construction. Further details are included in the CIP.

Chapter 8 – Summary of Phase 1 and 2 RSWSS Recommendations

The RSWSS represents a comprehensive review of the operations and facilities serving the County and the cities. The project was completed in two phases. During Phase 1, a thorough assessment of the physical condition of each facility was performed along with a review of operations. The results identified the needs and opportunities to upgrade facilities to meet both current deficiencies and develop the infrastructure to meet the needs of a growing population.

Many alternatives were evaluated while working with County staff as well as the City of Vancouver. Preliminary site plans were prepared to consider the best options for building the needed infrastructure. These results were carried forward into Phase 2 to complete a Regional System Facilities Plan.

Also, in Phase 1, the County considered options to existing policies and practices that might result in improving operations. Recommendations were made and are still under review.

The following represents the list of recommendations presented in both Phase 1 and 2 of the RSWSS. Important to note that several of these recommendations are impacted by the ongoing negotiations with CRC regarding operations of the transfer station system.

8.1 General Policy and Administration Recommendations

1. The County should establish a fair operating margin to compensate CRC for continuing with operations of solid waste facilities for the next five years or for a set period to be determined.

   Status – The County is currently in negotiations with CRC and is expected to address financial compensation for the operation of facilities.

2. Revenues generated in excess of the cost of services plus the established operating margin should be remitted to the County. The remitted revenues will be encumbered to fund capital improvements in the solid waste system.

   Status – The County is currently in negotiations with CRC and is expected to address financial compensation for the operation of facilities.

3. The County should establish a facility R&R evaluation process and a dedicated fund that will maintain system assets.

   Status – A preliminary R&R format was prepared but was not completed. The County is proceeding with a new contract to perform a more detailed assessment of conditions which could be used as the basis for preparing a schedule for establishing an R&R.

4. The County should approve funds for implementing Phase 1 of the CTR site improvements to eliminate any potential for inbound customers from queueing onto the public right of way on state Hwy. 503. The improvements include extending the entrance road and new scale onto the adjacent property located west of the current transfer station. Details of these improvements should be negotiated as part of the contract extension.

   Status – This recommendation is reaffirmed in the Phase 2 – Facilities Plan and is included in the CIP.

5. The County should establish a minimum rate for all customers using the transfer stations. Under the current tip fee policies, customers that bring less than 300 lbs. are not paying the cost of services. Implementing this policy may also provide an incentive to subscribe to regular collection services or cause customers to make fewer trips by consolidating their loads.

   Status – No formal decision has been made regarding establishing a minimum rate at transfer stations. The County has reviewed this recommendation with the SWAC and with the Regional Steering Committee.

6. The County should extend the hours of operations at both the West Van and Washougal.

   Status – No formal decision has been made to extend the hours of operations at West Van and Washougal. The County has reviewed this recommendation with the SWAC and with the Regional Steering Committee.

8.2 Ownership Recommendations

The following recommendations were adopted by the SWAC and endorsed by the Regional Steering Committee.

1. Solid waste staff recommend the County and/or City of Washougal exercise the available contractual options to purchase the facilities when the option of public ownership becomes available.
2. Solid waste staff recommend the option to publicly own and privately operate the regional transfer facilities under contract to be further evaluated. The evaluation should focus on the advantages and disadvantages of public operation of the scale houses versus fully contracted services.
3. Solid waste staff recommend further evaluation of Joint Municipal Utility Service model to own and operate the system. The evaluation should include an extensive stakeholder outreach and input process prior to the formation of a multi-jurisdictional organization.

8.3 Organics Recommendations

1. It is recommended the County prepare an organics management plan to address actions needed to comply with the goals established under HB 1799. It should include reviewing the feasibility of alternatives for implementing best management practices and implementing the most cost-effective strategy for handling organics. This includes considering both collections services for organics, processing and technologies to convert organics into renewable energy, and/or new products.

8.4 Recommendations of Phase 2 Regional System – Facilities Plans/CIP

The Facilities Plan identified $26.5M (2023 $) of capital improvements will need to be made over the next seven (7) to 10 years. Additional investments were also identified that could range from $18M to $34M depending on which option is implemented to serve the north service area currently managed at the existing CTR.

Recommendations for implementing system improvements are described in the CIP and are summarized as follows.

8.5 CTR Recommendations

1. Construction of an extension of the inbound lane onto the adjacent parcel west of the existing facility is the highest priority and should be completed by 2025.
2. The County should complete an evaluation of the options for the north service area in the next two years. This includes considering the necessary siting and permitting process and determining conditions related to expanding CTR.

8.6 Washougal Recommendations

1. The County should proceed with plans to expand Washougal. This would include providing survey and geotechnical data by the end of 2023. Final programming and design should then begin in 2024. It would be desirable to have the new expanded facility operational by the end of 2026.

8.7 West Van Recommendations

1. The County should proceed to complete site survey and geotechnical information by mid-2024. This would include gaining approval to extend city water and possibly sewer to the site. Design of first phase improvements could proceed in 2024 with construction in 2025.
2. A determination of a final schedule to remove the MRF should be made by the end of 2023. This would enable the County to make decisions on expanding the organics management improvements.

The recommendations and proposed schedule of capital improvements are further outlined in the CIP. The County will need to monitor the progress of these recommended actions and update the CIP annually.

Chapter 9 – Clark County Regional Solid Waste System Capital Improvement Plan (CIP)

9.1 Regional Solid Waste System Study – Findings for Capital Improvement Needs

The findings of the Phase 1 RSWSS and Facility Plan conclude the existing transfer stations do not have the capacity to manage current waste flows and traffic from customers. All three transfer stations experience operating deficiencies to provide services to customers. CRC has adapted to these conditions to operate safely, but the facilities are undersized to efficiently manage the current customers and waste volumes and cannot handle the increase in waste generated from future growth in the County. During peak periods at CTR, traffic will back onto Hwy 503 from both directions as they wait to enter the facility to weigh in and unload. At both West Van and Washougal customer traffic can also back onto the public right of way. Currently the facilities do not provide sufficient stalls for customers to unload.

In addition, there are no planned facilities to handle other waste streams or integrate programs to reduce waste disposed. This includes the need to handle mixed organics where collection programs for food waste mixed with yard waste from cities is already straining the tip floor space and operations at West Van. The amount is expected to increase significantly with the implementation of HB 1799 requirements by 2030. As acknowledged in the 2023 SWMP update, the County plans to evaluate the needs and opportunities to accept and process construction and demolition waste. The infrastructure required to meet the demands of these trends needs to be incorporated into modernizing the regional system.

In the Phase 1 RSWSS, JRMA completed an assessment of the current processing equipment at the West Van MRF. A MRF feasibility study was prepared and concluded that a new equipment line should be installed using advanced processing technology. The new equipment could be installed at West Van if expanded or at a new facility in the County. A new MRF could be constructed at a different location. Removing the processing equipment from the West Van Transfer Station would free up approximately 45,000 sf of enclosed structure to be used for other services. There is the option to repurpose CTR as a MRF if the County decides to build a new transfer station to serve the north service area.

The updated facilities plans for each transfer station acknowledges the need to provide space to receive and transfer mixed organics. The West Van CIP includes a plan to expand the existing structure to provide a covered area to receive food source separated food waste from commercial generators and mixed organics collected at residences. A new top load out station will allow the material to be transported to a compost facility. The West Van plan also provides the flexibility to construct mixed waste organics processing facilities such as aerated static pile composting (ASP) or possibly an anaerobic digestor unit(s).

9.2 Capital Improvement Plans

With completion of the Facility Plan, the major improvements needed to upgrade and expand the County have been defined. The following table lists the estimated capital to be budgeted over the next seven (7) years. Referred to as the Baseline CIP, these improvements are necessary to address both immediate deficiencies at the facilities while providing the flexibility to make additional investments to expand operations and provide solid waste and recycling facilities needed over the next 25 years.

Table 12: CIP Baseline Projections for Existing Transfer Stations

Capital Improvement Plan – Baseline Projections Estimates	
CTR – Phase 1	$6,500,000
Washougal – Phased Construction Plan	$4,700,000
West Van – Phased Construction Plan	$15,300,000
Total Estimated Capital For Baseline CIP	**$26,500,000**

The Baseline CIP will need to be updated annually to reflect changes to the projected revenue requirements. The construction cost information is based on projects in the region completed in 2023. It assumes that 2023 construction costs will increase by 3.5% annually, based on recent data.

9.3 Schedule and Key Assumptions for Implementing the CIP

CTR/ North Service Area

It is recommended that the County begin the initial phases to execute design and construction improvements at each facility. The highest priority is to build the Phase 1 improvements at CTR. During peak periods traffic continues to queue onto Hwy 503. These improvements will provide the queue space to rectify this condition and provide flexibility to operate with less onsite congestion at times. The Baseline CIP also includes a budget to expand the transfer station on the existing property referred to Phase 1A. This improvement is not scheduled to be made until 2026 and may not be implemented depending on which option the County decides to pursue for managing waste in the north service area.

The decision of which option to pursue in the north service area is expected to be complete by 2026. The Regional Facilities identified three options listed below.

Table 13: CTR and North Service Options Cost Estimates

North Service Option and CTR Construction Cost Estimates	
Build New Transfer Station	**$34,000,000**
Satellite Convenience Center	**$25,000,000**
CTR Expansion (Excludes Option 1A)	**$18,000,000**

CTR currently receives 60% of the waste generated in the County and is expected to experience the largest amount of population growth based on information from the growth management plan. Over the next two years the County will need to consider the timeframe and process associated with siting and permitting a new site versus expanding CTR onto the adjacent property. Another factor to consider in this decision is the question of public ownership of the regional system. At this time the County has leaned towards a preference to own the system and contract with a private company to operate facilities.

Assuming a decision on which option is chosen, the County will need to update the CIP to anticipate the future expenditures. Based on 2023 cost estimates, that could range from $18M to $34M plus inflationary cost. However, these costs are based on conceptual master plans as presented in the Facility Plan. Further analysis of the options with additional programming and design development will provide updated and more accurate

cost information. The JRMA consultant team has prepared CIP projections for each option to be used for financial planning purposes.

Washougal Transfer Station

Improvements at Washougal are considered a lessor priority but preliminary sitework should begin soon. Over the past two years the amount of waste received and number of self-haul customers have increased by 20% and 32% respectively. Thus, on peak days the amount of waste can exceed 150 TPD. As discussed in the Facilities Plan, the transfer station does not have the capacity to handle the surge during these events. For these reasons Washougal should be considered a priority, however CRC may implement measures to minimize impacts on operations until the facility is expanded.

Initial work to begin planning for making improvements could include conducting a site survey and preparing final programming and design development by the end of 2023. The decisions made to make improvements may also need to consider ownership, as the City of Washougal has the right to pursue this option. If these activities do proceed, final design could begin in 2024 and construction in 2025.

Other policies that may impact the timeline for making improvements at Washougal relate to possibly increasing the number days it is open to self-haul customers and establishing a minimum fee. Currently, Washougal is only open for self-haul customers three days per week (Wednesdays, Fridays, and Saturdays).

West Van

The West Van facility is the primary materials handling facility in the County. Located at the Port of Vancouver it not only operates as a transfer station, but also receives and processes all recycled materials, yard waste and mixed organics collected in the County. Solid waste is transferred less than a half mile on a private road to the barge operation, recyclables are processed and shipped to markets and organics are sent to Dirt Huggers, a compost facility in the Columbia Gorge near The Dalles, Oregon.

Similar to the other stations, self-haul traffic backs up onto Old Lower River Road and the limited space for onsite queue adds to congestion that impacts operations. The master plan prepared in this report presents revisions to the site circulation and provides configuration of on-site operations to reduce congestion and improve operating efficiency. It also includes an extension of the City water line to upgrade fire suppression and removal of obsolete structures.

The master plan provides information for creating the structures and space to manage future waste streams such as organics, construction and demolition wastes and/or other services required by the County and its partners. It presents a multi-year construction plan to allow improvements to be made while maintaining the necessary operations and services required.

The most critical element of completing the makeover of West Van is the decision whether to relocate the MRF. Anticipated to be completed over the next five years, the removal of equipment from this facility will open up approximately 45,000 sf of the enclosed structure. This space can then be re-purposed for managing mixed organics or other services.

The Baseline CIP acknowledges these events and describes the improvements to be made over the next seven years. With very limited space to manage the growing amount of mixed organics collected from both the Cities of Vancouver and Ridgefield, the plan shows the need to expand the existing MRF building in 2025. Until a firm decision and schedule for relocating the MRF is known, this improvement should be implemented.

If the MRF is relocated, recycled materials received at West Van will need more space for transferring to the new location. The master plan includes the expansion of the recycling and HHW drop off facilities to improve services and promote efficient operations.

Discussed in the master plan is the need to provide space to add future operations and services. Investments in future operations was not part of the RSWSS scope. Although these have not been clearly defined, the plan provides flexibility to add new facilities either inside the old MRF structure or possibly on the seven acres in the back of the property. Once a firm decision and schedule for relocating the MRF equipment is known, the County can review the master plan and determine revisions as required.

In conclusion the Baseline CIP provides the road map for making the necessary upgrades and expansions for the regional system. It provides a tool for managing the financial resources required to meet the demands for continuing to provide convenient and cost-effective services.

9.4 Financial Analysis for Capital Improvements

The Phase 1 RSWSS presented the options for making the necessary investments to modernize the County system. While preparing the Phase 1 Report, the JRMA team completed a review of the total cost of operating the solid waste system for the year ending in 2019. The financial review was conducted within the guidelines provided for in the contract between the County and CRC. The analysis provides information that will enable the County to evaluate impacts on rates for making capital improvements.

The revenue requirements for the capital improvement plan have been updated in the Facility Plan. The baseline CIP demonstrates the need to initially plan for $26.5M of investments in facility upgrades and expansions. The following table shows the estimated cost to operate the solid waste system in 2022 as projected from the 2019 cost of services review. Total revenues under the current rates are estimated at $43.8M based on the incoming waste received in 2022. Expenses unrelated to the transfer station operations are $13.4M. These expenses include county and city fees, Washington State refuse taxes, and disposal cost. The transfer station operational cost is estimated to $30.4M, and the net revenue generated from current rates is $13.4M in 2022. **Table 14** summarizes these costs.

Table 14: 2020 Transfer Station Revenue, Costs, and Income Projections

Description	Cost per Ton	Waste Tons	Total Cost
Revenue	$107.83	406,170	$43,798,122
Less Non-Related TS Costs	($33.09)	406,170	($13,439,566)
Transfer Station Operational Costs	$74.74	406,170	$30,358,556
Net Income	**$33.09**	**406,170**	**$13,439,566**

As a percentage of the Transfer Station Operational Cost, net income is 44% ($33.09 / $74.74). There are two primary reasons for the high margin. First, the County and CRC agreed to a phased-in reduction of the MRF subsidy without a proportional decrease in the waste disposal fee. Prior to 2017, the MRF was subsidized by the profitability of the transfer system. Second, through the life of the contract, CRC has depreciated the capital investments of the transfer station system. The last material investments made by CRC were in 2009 (Washougal Transfer Station) and 2019 (West Van compactor). It appears from the financial information that most of the capital expenditures are fully depreciated. Typically, capital depreciation is planned to reach zero near the end of an operational contract.

It is also important to note the unit cost to operate the County stations is not necessarily comparable to other transfer stations. This is because the level of services provided and the operations of each transfer station themselves can vary significantly. For instance, Metro contracts out its transfer station operations. However, Metro operates the scales/gatehouse at each facility. In addition, Metro owns the facilities and is responsible for making most repairs. As such, they have established a renewal and replacement account to fund these repairs and replace equipment. CRC is a full-service vendor that manages all of the activities and functions associated with the operations of all three facilities and making repairs.

The financial analysis supports the conclusion that current rates generate sufficient revenue to fund capital improvements. The County is currently negotiating a new contract to address the funding capital investments.

Appendix A: Phase 1 Summary

Summary of Phase 1 Report

Regional Solid Waste System Study

October 15, 2021

Final

Prepared for

Environmental Health Department

JRMA ARCHITECTS ENGINEERS

JRMA ARCHITECTS ENGINEERS

Clark County

Department of Solid Waste

Regional Solid Waste System Study

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October 15, 2021

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Summary Report

Phase 1 - Regional Solid Waste System Study

Chapter 1 – Introduction

The JRMA Consultant Team completed the first phase of the Regional Solid Waste System Study (RSWSS) for Clark County (County). This document provides a summary of the findings and recommendations to be discussed with stakeholders to provide a direction for moving forward with Phase 2. It also outlines the critical decisions that are needed for making the necessary investments in the solid waste system to efficiently manage waste and recyclables for the next 20 years.

Background

The current solid waste system evolved from a set of events in the early 1990s that resulted in the closing of local landfills and reliance on large regional landfills in eastern Oregon and Washington to dispose of waste. This led the County to contract with Columbia Resources Company, a wholly-owned subsidiary of Waste Connections of Washington (WCW), to build two transfer stations, West Vancouver Material Recovery Facility and Transfer Station (West Van) and Central Transfer and Recycling Center (CTR), to receive waste and re-load into larger trailers/containers for transportation to Finley Buttes Landfill located in Boardman, Oregon. Most of the County's waste is transported by barge, which is a separate contract, with Tidewater Barge Company. A third transfer station was constructed in 2009 in Washougal to manage waste in the eastern part of the County. Waste from the Washougal Transfer Station (WTS) is transported via semi-tractor-trailer to the Wasco County Landfill near The Dalles, Oregon. Waste Connections owns both Finley Buttes and Wasco County landfills. Over the past 30 years, no significant improvements or expansions have been completed on the transfer system.

The agreement with WCW has been in place since 1991 and is a contractual relationship with the County and cities for operating transfer stations, material recovery facility (MRF) at West Van, and transporting and disposing of waste. The contract timeframe has been extended until December 31, 2021. It provides for another five-year extension until December 31, 2026.

A crucial provision in the contract allows the County to take ownership of the transfer station system by January 1, 2026, provided WCW is notified by December 31, 2025. The intent for providing this option was the fact that the existing transfer station has been paid for by ratepayers; therefore, these facilities should become public property. This contract provision assumes the County intends to exercise this option. The regional study considers options available for the County to exercise the ownership provision.

The purpose of the RSWSS is as follows:

1. Provide a comprehensive financial review of the cost of services and operation of the facilities.
2. Complete a comprehensive assessment of the physical condition of the existing facilities to identify repairs, equipment, and infrastructure replacement, and estimate the respective costs.
3. Assess operational conditions of each facility and necessary capital investments needed to enhance existing operations and meet the demands of future waste volumes.
4. Consider changes to waste and recycling collection services that could reduce self-haul traffic at the transfer stations.

5. Prepare a 20-year Capital Improvement Plan (CIP).
6. Engage the regional partners and stakeholders to review the study findings and develop a strategy for the system's future development.

A summary of key issues and findings by Chapter from the RSWSS, as well as recommendations, if applicable, follow below.

Chapter 2 – Waste Generation Projections

Key Issues

1. With the expected growth in the County, how much waste will be generated over the next 15 years?
2. Where will the waste be generated, and what are the impacts on the transfer station system?
3. How does this increase in waste volume impact each transfer station?
4. As the County evaluates ownership options, what is the existing condition of the transfer station structures and site features?
5. What is the cost of making improvements to address minor repairs or deficiencies at each station?

Findings

The project team completed estimates of the amount of waste to be managed by the solid waste system using population projections provided by the Office of Financial Management (OFM).

1. Clark County's population is expected to grow from 490,000 to 643,000 people by 2040.
2. Waste generation is estimated to increase from 390,000 tons per year (TPY) to almost 520,000 TPY by 2040, an increase of 130,000 TPY, or 33% in the next 20 years.
3. Based on assumptions presented in the County's Growth Management Plan, a range of 58% to 70% of this growth will occur in the CTR service area. The Cities of Battleground, Ridgefield, and La Center are expected to more than double in population by 2040.

The population growth is estimated to generate 130,000 tons of additional waste per year that must be managed by the transfer station system.

Chapter 3 – Operational Efficiencies and Impacts from Traffic and Public Self-Haul

Self-haul traffic at the transfer stations has increased, particularly at CTR. Continuing to provide a safe level of service at the transfer stations will require additional improvements and expansion at all facilities. Almost 30% of the self-haul customers have less than 200 pounds (lbs.) per load; these are very small loads that accentuate the traffic challenges at CTR.

Several cities have instituted universal collection services for all households and businesses. However, in the unincorporated areas of the County and within the City of Battleground, subscribing to regular collection services is optional. The cost to handle the traffic and loads at the transfer stations exceeds the cost for households to subscribe to regular collection services. Chapter 3 presents options that may be adopted to possibly incentivize customers to consider subscribing to collection services, which could effectively reduce the number of self-haul trips to CTR.

Key Issues

1. Would self-haul traffic at the transfer stations decline if universal waste and recycling collection services were required throughout the County?
2. Based on the current rate structure, are self-haul customer rates covering the cost for service at the transfer stations?
3. Could changes in the collection services, such as the expansion of bulky waste collection, reduce traffic at the transfer stations?
4. Are there changes to the rate policies that would incentivize individuals to subscribe to collection services, and therefore, reduce traffic?

Findings

1. Specific data that suggests a correlation between enacting universal services and the reduction of traffic at the transfer stations are not available.
2. Adopting universal service and expanding the collection services for bulky items is a common practice that may reduce self-haul traffic at transfer stations.
3. Self-haul customers with loads less than 400 lbs. are not charged rates that cover the cost of services provided at transfer stations. To offset this cost customers with small loads at the transfer stations are being subsidized by the large volume collection route trucks. In other words, customers that subscribe to waste collection services are subsidizing the low-volume self-haulers that use the transfer station system.
4. A survey of transfer stations throughout the Pacific Northwest demonstrated it is common that a minimum rate is charged for the self-haul customers at these facilities. In most cases, the minimum fee is assessed to a minimum load weight between 300 to 460 lbs. The minimum fee charged for these loads ranges from $18 to $30 per vehicle (2020 Data).
5. Establishing a minimum fee of $25 would be equivalent to the current charge for 400 lbs. at the County transfer stations.
6. The County should consider opening both West Van and Washougal transfer stations on Sundays to self-haul customers. The additional hours of operation may reduce traffic at CTR.

Chapter Recommendations

1. The Solid Waste Management Plan Update process should further evaluate expanding universal services and programs for the collection of bulky waste items for residences.
2. Adopt a minimum fee at transfer stations that covers the actual cost of services.
3. Expand the operating hours at both West Van and Washougal.

Chapter 4 – Regional Transfer Stations Operations and Conditions Assessment

The County is proceeding with negotiations with CRC to continue operations of the transfer station system. Phase 1 of the regional study focused on reviewing the current conditions of the three stations to determine what improvements are needed to maintain safe and efficient services to residences and businesses.

Key Issues

1. What is the physical condition of each station, and what repairs and/or replacements are required to maintain operations?
2. What improvements are needed to enhance operations and meet the future waste volumes of the areas served by each transfer station with the expected growth within the County?
3. What are the entrance improvements needed at CTR to mitigate off-site queueing onto Highway (Hwy.) 503, and how soon can they be completed?

Findings

The engineering team conducted a condition assessment of each transfer station to inspect physical assets and review operations.

CTR Findings

1. Working with the County and Washington State Department of Transportation (WSDOT), CRC has proceeded with construction to modify the entrance off Hwy. 503 to provide two inbound lanes for vehicles to access the station. The new entrance would allow those vehicles traveling from the south to make a left turn into a dedicated lane. These vehicles would not need to compete with traffic making a right turn from the north. Construction is expected to be completed by the end of 2021.
2. The transfer station building has been maintained and is in good condition. Some minor repairs are recommended.
3. The current CTR facilities began receiving waste in 1992 when the entire County generated less than 200,000 TPY. In 2020 the entire transfer station system handled over 370,000 tons with CTR receiving 230,000 tons. There have been no major improvements or expansions to the facility since it was constructed.
4. Over the next 15 years, the north portion of the County is expected to grow and generate between 64,000 and 75,000 more tons of waste per year. CTR could receive an additional 300 tons per day (TPD) plus more traffic.
5. CTR receives over 60% of all waste generated in the County. At peak periods, CTR receives about 1,000 TPD and can have between 900 and 1,000 vehicles on a weekend day. As a result, there are several deficiencies and significant improvements are needed to handle the current waste quantities and customer traffic.
    a. Even with the new entrance improvements, there is insufficient queue space to handle the current traffic. An additional inbound scale is needed onsite to provide onsite queueing for self-haul customers.
    b. The existing transfer station building does not provide sufficient space for vehicles to unload and for managing waste quantities received.
    c. With only one compactor, the loadout capacity is only 900 tons over 12 hours. Also, if the compactor is out of service for repairs, there is no backup. This can result in reduced payloads in transfer trailers and increased costs.
    d. The current site circulation should be revised for safety purposes by mitigating the mixing of commercial trucks and transfer trucks with self-haul traffic.
    e. If the facility is upgraded, then such improvements should include mitigation measures to reduce potential impacts on the neighboring residential developments.
6. There are three options for addressing current conditions and for serving the north/central part of the County.
    a. Make major improvements to CTR to address current and future needs.
    b. Make minor improvements to CTR and build a new satellite transfer station to serve the growing population in the Ridgefield, Battleground, and La Center area.
    c. Build a new transfer station to serve this area at a new location.

These options are discussed in Chapter 5 – North Area Serve Options.

West Van Findings

1. The transfer station is in fair condition with damage to some building columns. Repairs should be made in the future.
2. All other support structures are in good or satisfactory condition.
3. Bay 1 is dedicated to receiving and transloading organic materials with food waste. It is expected that programs for collecting food waste will be expanded, and Bay 1 will not have sufficient space to manage this material.
4. The MRF process line will need additional equipment to improve throughput and enhance the quality of recovered materials to meet market conditions. These improvements can be made; however, a new process line will need to be installed either at West Van or possibly at a new location. The MRF Feasibility Report is provided in Chapter 7 of this Phase 1 Report.

Washougal Transfer Station Findings

The condition of the transfer station is good; however, there are some improvements to the loadout area that should be made to protect the building panels and to enhance loadout operations. A concept plan for improvements and expansions was prepared. These improvements are as follows:

1. A short-term improvement to expand the access lane to the household hazardous waste (HHW) facility is needed. This is a minor investment to improve traffic flow and safety and could be completed in the near future.
2. A steel backsplash and chute along the east side of the building in the loadout tunnel should be added. This backsplash will protect the siding from damage caused by loading trailers. It should also reduce the possible spillage of waste from the top-load operation. Also, adding a short push wall on the tip floor side to increase surge capacity should be considered.
3. To increase capacity and provide long-term services the station should be expanded in the next five years. This would include expanding the transfer station building and paving to accommodate additional traffic. The new building can include a lean-to on the north side to provide storage of special waste.
4. In the Long-term, the entrance road can be widened to increase the capacity of the scale complex and reduce the potential of traffic backing onto Grant Street.

Chapter 5 – North Area Service Options

Three options were evaluated to address the current traffic deficiencies of the existing CTR facility as well as to manage the increased waste volume from the expected population growth.

Option 1 – Upgrade and expand CTR to accommodate volume capacity to 2040. The estimated cost is $14M to $17M.

Option 2 – Minimal improvements to CTR and construct a new satellite transfer station to serve the northern part of Clark County. The estimated cost is $14M to $16M.

Option 3 – Replace CTR with a new transfer station at a different location for an estimated cost of $25M to $30M.

Findings

1. Construction costs needed to build the infrastructure for serving the north region of the County is estimated to range from $14M to $17M for Options 1 and 2 to as much as $30M for Option 3, assuming a new transfer station is sited.

2. Making major improvements at CTR (Option 1) is estimated to be the lowest overall operating cost for managing the waste generated over the next 15 years. The cost to make these improvements is estimated to be about $17M. This does account for the cost of purchasing the adjacent parcel needed for this expansion. The adjacent parcel located on the west side is owned by WCW. The parcel is part of a former closed landfill, and this option assumes the underlying soil conditions are suitable for building structures. Further analysis is needed to verify these conditions. Also, the adjacent properties on the north and west sides of CTR include new residential developments. It is assumed land use permits will need to be obtained for this expansion. The major improvements prepared as part of this study have demonstrated that CTR can be constructed in phases to keep the facility operating during the construction period.

3. Both Option 2 and 3 are reasonable solutions for meeting the long-term service needs but both will require siting a new facility. County zoning does allow transfer stations to be approved on most zones through a conditional use process.

4. In addition to cost, other considerations may impact the decision for serving this area, including the expansion of residential development adjacent to CTR, ingress and egress limitations for customers off Hwy. 503, and potential issues related to underlying soil conditions on the adjacent west property that could impact the expansion of CTR.

Chapter 6 – Capital Needs Assessment and Financial Analysis

The conditions assessment presented in Chapter 4 and the North Area Service Options in Chapter 5 resulted in defining the needs for making capital improvements to the three transfer stations. Conceptual plans were prepared for both CTR and Washougal. For West Van, the improvements for new equipment for the MRF are listed, but no concept plans were developed. Instead, it is recommended that a master site plan be prepared for the complex once a decision for a new MRF processing system is made.

Findings - Capital Improvements Needs

1. The County will need to decide on the long-term solution for serving the north-central part of the County either by planning further expansion of CTR or by siting a new transfer station.

2. Over the next 10 years, the County and its partners will need to invest an estimated $25M to $50M to upgrade and expand the existing transfer stations and MRF. The broad cost range reflects the fact the County could decide to replace CTR and build a new transfer station.

3. Phase 1 of the CTR improvements includes extending the inbound traffic lane and adding a new scale on the west side property. The improvements will eliminate inbound customer traffic from queuing onto Hwy. 503. This could also include building an access ramp to the south end of the existing transfer station. This improvement is estimated to cost about $3M assuming the underlying soil conditions of the adjacent west property are acceptable.

4. Improvements to upgrade and expand the Washougal Transfer Station at an estimated cost of between $1M and $2M will need to be made over the next five years.

5. CRC has made some initial improvements to the West Van MRF processing system that will enhance system performance. In the long term, a new processing system will be needed.

Findings - Financial Analysis to Address Capital Improvements Needs

The JRMA project team completed a review of the total cost of operating the regional system. Working in cooperation with WCW, the financial analysis examined the current cost of operating the system for 2019. The purpose was to determine the actual cost of just operating the transfer station and recycling facilities. The financial review was conducted within the guidelines provided for in the contract between the County and WCW. The analysis provides information that will enable the County to evaluate impacts on rates for making capital improvements.

1. The total cost of operating the three transfer stations is reported to be $8.9M in 2019. This includes full services from operating the gatehouses, managing traffic and waste volumes, and loading into transfer trailers. It also includes CRC's internal transport operations to shuttle boxes and stage rolling stock and maintaining the physical infrastructure at each facility. It does not include long haul transportation to either the Wasco Landfill in The Dalles, Oregon by truck or Finley Butte Regional Landfill in Boardman, Oregon by barge.

2. Based on the financial information provided it appears that the transfer stations have been fully depreciated. However, there may be some equipment still being paid for by CRC.

3. The current rates generate revenue well above the current cost to operate the transfer station system and for transport and disposal of waste. Assuming facilities have been fully depreciated and paying the vendor an operating margin of 15%, the current rates generate about $5M in surplus revenue that could be allocated to make capital improvements at facilities. Over a ten-year period, this would generate approximately $50M.

4. Establishing a dedicated capital improvement fund with funds generated from current revenue would negate the need to borrow monies for the needed capital improvements.

Chapter 7 – MRF Feasibility Report

The County and each of the cities offer a range of recycling services to residences and businesses. The primary service is the collection of commingled recyclable materials from single-family and multi-family residences. The materials collected are taken to the West Van MRF to be processed for delivery to markets. The current equipment used to process recycled materials has been in operation since 2008.

Recognizing the importance of maintaining and potentially expanding recycling programs the project team completed a thorough review of the MRF operating system. This assessment evaluated both the physical condition and the operating performance of the equipment line. As part of this assessment, the team considered the impacts on markets for recycled materials resulting from China's decision to restrict imports of materials (aka. The China Sword).

Findings of MRF Feasibility Study

1. The current equipment line has been well maintained and relies largely on the use of outdated technologies. This, combined with demand by markets for higher quality materials, results in operating the system on average at 15 tons per hour (TPH) well below the design rate of 20-25 TPH.
2. Currently, the County generates about 60,000 TPY of recycled materials. The current diversion rate is about 67% with 33% of the materials received being transported to landfills. The rate of discards or contaminants is a result of two factors. One, the amount of non–recyclable material being collected from generators of recycled material must be reduced. Two, the MRF processing line will need to be upgraded to improve performance to produce higher quality materials at a reduced cost.
3. The assessment identified a list of potential equipment to be installed to improve performance and reduce cost. CRC has since installed several robotic units and added optical sorters that have contributed to reducing operating costs.
4. The County should begin planning to have a new equipment line installed. The retrofits to the existing process line will provide short-term benefits for processing current materials but will need to be replaced with a new system employing more advanced technologies to be more cost-effective and recover more materials.
5. The feasibility study considered several options for replacing the current process line. They included the following:
    a. Install a new equipment line at West Van
    b. Site and build a new MRF facility to be centrally located in relation to where recyclables are generated and collected.
    c. Converting CTR to a MRF facility and siting a new transfer station to serve the north/central County area.
6. Installing an advanced processing system is estimated to cost between $15M and $18M and would result in reducing the unit operating cost from an average of $127 per ton to an estimate of $100 per ton assuming the current materials (i.e., 60,000 TPY).
7. A new MRF equipment line at a more central location would be the most cost-effective option, assuming the County and its operator could increase the number of materials being processed. The feasibility analysis considered the cost if the number of materials processed was to be increased to 100,000 TPY. This would mean importing materials from other jurisdictions or processing other materials such as high-grade commercial loads.

Chapter 8 – Summary: Key Findings and Recommended Actions

Completion of the Phase 1 of the RSWSS provides a list of key findings for the County and cities to review and decide what facility improvements are needed to manage the region's solid waste system and recyclables for

the next 20 years. Although the three transfer stations have been well maintained there have been no significant investments at either CTR or West Van in over 25 years. The Washougal Transfer Station was constructed in 2009.

Since the construction of these facilities, the population of the County has more than doubled. Over the past 10 years, the amount of waste being generated increased from 230,000 tons in 2010 to nearly 400,000 TPY in 2020, an increase of 75%. OFM projects Clark County's population may grow to as many as 612,000 people or a 22% increase by 2035.

The three transfer stations operating today were not designed to handle the current volume of traffic and waste quantities being received. Decisions to make improvements have been stalled by the current contractual arrangements with CRC. The County has notified CRC of its intent to extend the operating contract for five years as stipulated in the current agreement. No decision has been made regarding the question of ownership. The County has the right to purchase the transfer stations by notifying CRC prior to December 31, 2025.

Findings

1. The County and local jurisdictions will need to invest between $25M to as much as $50M in the solid waste system to efficiently manage the current and future waste projected from growth.
2. CTR has made improvements to help mitigate ingress and egress from Hwy. 503, but this will not eliminate customers from stacking into Hwy. 503. The Phase 1 Report includes concept plans to improve and eliminate this condition.
3. The revenue generated from the current rates can provide sufficient funds to pay for necessary capital improvements over the next ten years.

Description of Scenarios for System Improvements

The Phase 1 Report has identified three scenarios for developing the infrastructure needed to meet the needs of the solid waste system for the next 20 years. In addition to the capital improvements required for the system, it provides the background information necessary to understand the critical issues related to the current contract extension and system ownership.

Each scenario is described and accompanied by a preliminary cost estimate to construct the improvements. A list of advantages and disadvantages is also provided for decision-makers to consider when comparing one scenario vs. another.

<u>Scenario 1 – Upgrade all Existing Facilities to Serve the County</u>

This scenario is based on the decision to upgrade all existing transfer stations and retain the MRF operations at West Van. It reflects the assumption that the current facilities are located adequately to satisfy the long-term needs of the solid waste systems and makes no changes that would affect the collection services.

1. **Limited expansion of the CTR to serve as the primary transfer and recycling facility for the next 20 years.**

    This Report identified several options for making improvements to CTR, so it can operate more efficiently and handle the impacts from growth in this part of the County. The preferred option will require gaining approval to expand onto the adjacent property west of the existing site. The adjacent property is a closed construction and demolition landfill. Before any new structures are built, the environmental and subsurface conditions will need to be investigated further. Land use approval of an expansion will need

to be completed. New residential developments have been built on both the north and west sides of CTR potentially complicating efforts to permit expansion of the facility onto this property.

CTR – Improvements to expand the current structure; and improve circulation to eliminate off-site queue **$14M to $17M**

2. **Expand Washougal Transfer Station**

The Washougal Transfer Station is experiencing the impacts of growth in both Camas and Washougal and the eastern part of the County. The building will need to be expanded to manage the increase in customer traffic and the amount of waste received. The cost for making improvements is estimated to range from $1.5M to $2M.

Washougal TS Improvement **$1.5M to $2M**

3. **West Van MRF Improvements**

There are no immediate capital needs to expand the West Van Transfer Station. The facility can handle the customer traffic and waste received in the near future. However, space is limited for handling other waste streams in particular food waste that is collected from select generators as part of a pilot program. It is expected that the food/organics waste streams will expand as programs to separate food waste expand. The report has recommended that a master plan for the entire site be prepared to consider how this valuable resource can be developed to handle other waste streams such as food waste and construction/demolition debris.

In this scenario, the plan would be to replace the existing MRF processing equipment line at West Van. As the old system is removed and new equipment is installed, the County would be required to transport commingled recyclables out of the County to other MRFs operating in the region (Estimated 9 to 12 months). This cost is not included in this analysis.

West Van Improvements **$4M to $6M**

Scenario 1: Total Estimated Construction Cost Over Next 10 Years **$19.5M to $25M**

Scenario #1 System Impacts

Upgrading all existing facilities appears to be the most expedient approach for system improvements and initially requires less capital than the other scenarios. Collection services will not be impacted and will remain as is current. It does not improve collection services for commingled recycled materials that must travel to West Van to unload. As the north/central portion of the County continues to grow, more collection vehicles will need to make the trip to West Van to unload possibly twice a day.

Expanding CTR onto the adjacent property may encounter challenges from neighbors to develop this property given the changing nature of the area. Also, in the future, all customers leaving the site must turn right. The customers traveling from the north county will need to travel south on Hwy. 503 and find a new route for return to their origin.

Advantages

1. Requires the least capital cost
2. Does not require siting any new facilities in the near future
3. Makes use of existing facilities

Disadvantages

1. Access to CTR off Hwy. 503 is less than ideal
2. CTR will continue to operate adjacent to residential properties
3. Land use approval of CTR expansion may have challenges
4. MRF at West Van requires the longest travel times for commingled collection trucks
5. When a new recycling processing line is installed at West Van materials will need to be transported to an out-of-County MRF facility for 9-12 months
6. Provides no space for new facilities that may be needed to process organics or construction and demolition waste, or other infrastructure identified by CSWMP
7. West Van facilities may need to be expanded in the future

Scenario 2 – Upgrade CTR and Washougal – Build a New MRF

This approach is based on expanding CTR but recognizes the benefit of building a new MRF at a central location to be determined. It also allows the space vacated by removing the MRF processing equipment at West Van (approximately 45,000 sf of enclosed space) to be used for other purposes to meet the future needs of the solid waste system. Examples include processing organics and/or processing construction and demolition waste at West Van.

1. **Build a New MRF for Recycled Materials** **$25M to $30M**
2. **Make Improvements at CTR and Washougal per Scenario 1** **$15M to $19M**

Scenario 2: Total Estimated Construction Cost Over Next 10 Years **$40M to $49M**

Scenario #2 System Impacts

This approach continues the theme of upgrading and expanding CTR and Washougal Transfer Stations. It recognizes that locating a new MRF in a more central location may result in the least transportation cost to the system in the long term. It requires time to site and build a new facility and therefore will require additional capital investments. Assuming the County would contract this to a private vendor, the vendor would be responsible for siting and building the facility.

Advantages

1. Makes use of existing transfer stations
2. If centrally located the new MRF should reduce costs attributed to collecting comingled materials (Preliminary estimate is about $1M per year based on current collection services)
3. Processing recyclables at West Van can operate while a new processing system is installed at the new MRF
4. Provides flexibility by creating space at West Van that can be re-purposed for future options

Disadvantages

1. Requires the largest capital investment of the three scenarios
2. Access to CTR off Hwy. 503 is less than ideal

3. CTR continues to operate in a residential environment
4. Land use approval of expansion may have challenges
5. Requires siting a new MRF facility

Scenario 3 – Build New Transfer Station to Serve North/Central County and Convert CTR to MRF

This approach is based on siting a new transfer station to replace CTR. It recognizes the current CTR site is not the best location given the disadvantages listed in the previous scenarios. Several factors weigh into such a decision. First, direct access off Hwy. 503 is less than desirable given high traffic volumes. Second, the surrounding neighborhood has been developed with more residential property adjacent to the station. Third, expansion of the facility will require building on the adjacent old landfill property on the west side. Rather than retrofit CTR with less-than-ideal conditions, the County would proceed with a siting study to identify a suitable property for developing a new transfer station. Once the new transfer station is operational (est. five years), CTR would be converted to a new MRF. After the new equipment line is installed at CTR the old system at West Van would be removed and the space at West Van can be re-purposed (approximately 45,000 sf).

1. Build a Transfer Station	**$26M to $30M**
2. CTR – Phase 1 Circulation and Traffic enhancements	**$3M**
3. Retrofit CTR to MRF	**$7M to $8M**
4. Washougal TS Improvements	**$1M to $2M**
Scenario 3: Total Estimated Construction Cost Over Next 10 Years	**$37M to $43M**

Scenario #3 System Impacts

This scenario requires the County to site a new transfer station. It also takes advantage of the current infrastructure by converting CTR to an MRF. This will result in CTR receiving only commingled collection trucks (less than 100 vehicles per day) versus the current customer traffic (800 to 1,000 vehicles per day). The facility will receive only recycled materials five days per week with, possibly, a few trips on Saturday. This will have a significant positive safety impact on traffic on Hwy. 503 over the current conditions. Also, the adjacent residences will not be impacted by the traffic at the gatehouse and operations into evenings and on weekends.

Locating and permitting a site to build a new transfer station will require time to gain approval and permits but may be best in the long run. First, it can be built to handle the customer traffic expected from population growth and manage the future waste volumes generated in the North County region. A new site can potentially be developed in a more commercial/industrial area that has good access to arterials and primary collector streets.

Advantages

1. Makes use of existing transfer stations
2. Requires less capital than scenario 2
3. When the new transfer station is operational CTR can be converted to a MRF only operation
4. Existing MRF can continue to operate while CTR is converted avoiding transportation of recyclable materials to an out-of-country facility
5. CTR MRF is centrally located and can reduce costs attributed to collecting commingled materials
6. Provides flexibility by creating space at West Van that can be re-purposed for future operations

7. Has the potential to provide the lowest system cost by building a new more efficient transfer station and reducing overall system collection and transportation costs
8. Eliminates safety risk of having high customer traffic access off Hwy. 503
9. Avoids development onto the adjacent property at CTR

Disadvantages

1. Requires more capital than scenario 1
2. Requires time to site and permit new transfer station

Phase 1 Recommendations

Each of the scenarios described will provide the necessary infrastructure for managing solid waste and recyclables for the next 20 years or longer. The decision of which scenario to implement will require input from stakeholders and a decision regarding future ownership. The following recommendations can be reviewed and considered while work is in progress on Phase 2. The Phase 2 work is designed to provide additional information to aid in making final decisions on the preferred scenario.

1. The County should establish a fair operating margin to compensate CRC for continuing with operations of solid waste facilities for the next five years or for a set period to be determined.
2. Revenues generated above the cost of services plus the established operating margin should be remitted to the County. The remitted revenues will be encumbered for future solid waste system facilities and improvements.
3. The County should establish a facility Renewal and Replacement (R&R) evaluation process and a dedicated fund that will maintain system assets.
4. The County should approve funds for implementing Phase 1 of the CTR site improvements to eliminate any potential for inbound customers from queueing onto the public right of way on State Hwy. 503. The improvements include extending the entrance road and new scale onto the adjacent property located west of the current transfer station. Details of these improvements should be negotiated as part of the contract extension.
5. The County should establish a minimum rate for all customers using the transfer stations. Under the current tip fee policies, customers that bring less than 300 pounds are not paying the cost of services. Implementing this policy may also provide an incentive to subscribe to regular collection services or cause customers to make fewer trips by consolidating their loads.
6. The County should extend the hours of operations at both the West Van and Washougal transfer stations.

Phase 2 Study

The results of the Phase 1 Report have detailed specific operational and master planning questions that need to be addressed as part of developing and implementing a 10-year CIP. The key questions to be answered are as follows:

- Should CTR continue to operate as the primary transfer station over the next 20 years or should a new transfer station facility be built?
- Should the MRF continue to operate at West Van or should the MRF be sited at a more central location

to where materials are generated thus reducing overall collection and transportation costs and using the vacated space for other system needs?

The County and the cities are currently negotiating to extend the contract with CRC until December 31, 2026. The negotiation is expected to clarify the direction the County will take regarding future ownership of the system. Negotiations should determine how the future capital improvements will be paid for under the current rate structure.

Phase 2 of the Regional Study includes the following tasks to provide additional information for decision-makers.

1. Complete the search to locate a new transfer station to serve the north/central parts of the County. The siting study should identify the preferred site for building a new station.
2. Complete subsurface investigations on the property west of CTR to determine the conditions or limitations for consideration of the option to expand CTR.
3. Complete the CSWMP. A priority of the CSWMP will be to identify needs for additional facilities for managing waste in the future. Two items that have been discussed while completing the Phase 1 Report are the need to manage food waste as part of a regional organics management strategy and providing facilities to handle construction and demolition waste.
4. Complete a detailed plan for expanding the Washougal transfer station.
5. Complete the Renewal and Replacement /CIP financial plan for the regional system.

Phase 2 of the Regional Study is expected to be completed within the next 24 months and will be coordinated with Phase 3 – Update of the CSWMP.

Appendix B: Basis of Master Plans: West Vancouver Materials Recovery Center, Central Transfer and Recycling, Washougal Transfer Station

West Vancouver Materials Recovery Center Facility Master Plan

Basis of Master Plan Report

Prepared by JRMA
February 7, 2023

Introduction

This document reviews the findings from the 2021 Phase 1 Regional Solid Waste System Study (RSWSS) and establishes information needed to consider what improvements/modifications and used to prepare a master plan for the West Vancouver Materials Recovery Center (West Van). Preparing a master plan for West Van was a key recommendation from the RSWSS. Please see **Appendix A** for a summary of the findings and recommendation from the RSWSS for the West Van facility. The master plan will identify the infrastructure required for managing solid waste and recycling services over the next 20 years.

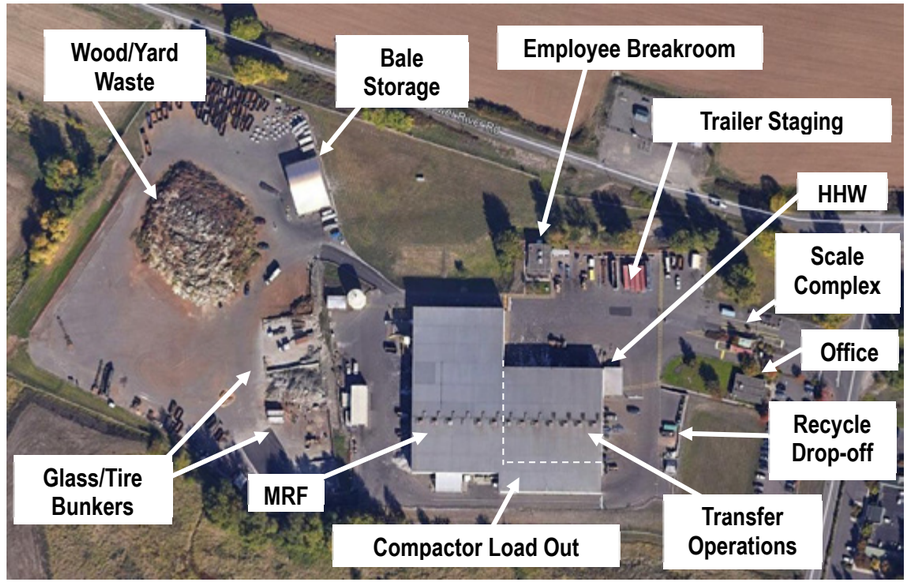
In Phase 1 RSWSS an assessment of the conditions of the West Van was conducted. Some minor repairs are required but primary structures appear in good condition. Based on the current negotiations with Columbia Resource Company (CRC), it is understood the MRF will be relocated to another site within five years (January 2028).

Background and Existing Conditions

West Van is located on a 21+ acre site off Old Lower River Road at the Port of Vancouver. It was constructed in 1993 to receive municipal solid waste (MSW) from commercial collection trucks and self-haul customers. MSW is loaded into containers that are shuttled 0.5 miles to a barge loading facility located on the Columbia River. Waste is then barged more than 200 miles to the Finley Buttes Regional Landfill in Boardman, Oregon.

The property includes a large 91,100 square foot (sf) pre-engineered metal building (PEMB) that receives waste from self-haul customers and Waste Connenction of Washington (WCW) collection trucks from residential and commercial accounts. The transfer operations occupy 46,000 sf of the structure while the MRF receiving and processing operations use the remaining 45,100 sf.

Figure 1: West Vancouver Recovery Center



In addition to the transfer station and MRF operations, West Van provides approximately seven acres on the north side of the site for managing other waste streams. This includes space for receiving and processing yard debris and wood waste and dedicated bunkers to receive mixed glass and inert waste such as concrete and rock deposits. Tires are also received and temporarily stored before being transferred for processing. It also provides supplemental storage for baled materials in a canopied area and for parking rolling stock and container storage. These operations are performed outdoors except for the bale storage canopies.

West Van Waste Quantities

The West Van facility receives 30% of all waste generated in the County. As shown in **Table 1** the total amount of waste received from 2016 to 2021 has increased marginally from 102,798 tons per year (TPY) to 116,719 TPY or 14%. This may be attributed to the fact that most of the growth in the County is occurring in the central portion of the County and in the cities of Battle Ground and Ridgefield. **Figure 2** shows the year-over-year growth in tons and vehicle trips.

Based on recent history, West Van receives an average of 400 tons per day (TPD) and peaks can be 450 TPD. Assuming 30 tons per shipping container and a filling of three compactor loads per hour, all waste can be removed to be barged in five to six hours.

However, the number of trips entering the facility has increased by 53% mostly due to an increase in cash customers from 39,000 in 2016 to over 64,000 in 2021 or 66%.

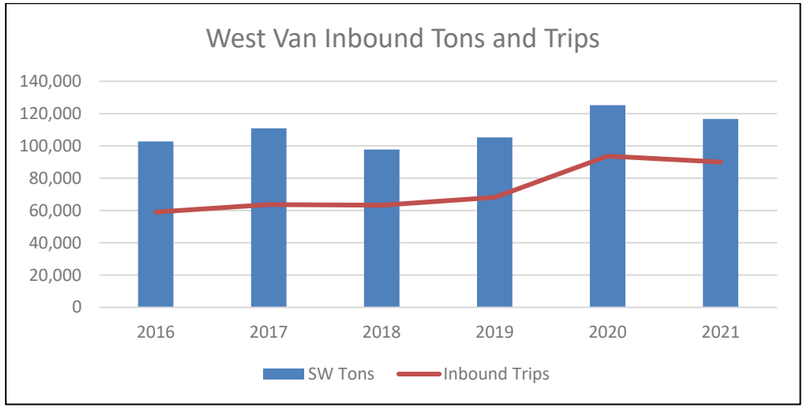
Table 1: West Van Historic Waste Quantities and Traffic

West Van							
Tons	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**5 - Year Av.**
Cash	15,683	19,732	17,694	17,841	22,742	26,620	20,926
Commercial	43,564	44,380	38,335	30,361	16,107	18,971	29,631
Route Trucks	21,172	22,955	21,838	31,495	51,765	42,128	34,036
WCW Drop Box	22,379	23,798	19,925	25,602	34,633	28,999	26,591
Total Tons:	**102,798**	**110,865**	**97,792**	**105,299**	**125,247**	**116,719**	**111,184**
Inbound Trips	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**5 - Year Av.**
Cash	39,003	42,805	43,299	45,674	66,591	64,556	52,585
Commercial	10,951	11,425	11,197	10,802	10,839	11,247	11,102
Route Trucks	2,766	2,877	2,926	4,134	6,430	5,585	4,390
WCW Drop Box	6,340	6,569	5,809	7,465	9,839	8,599	7,656
Total Trips:	**59,060**	**63,676**	**63,231**	**68,075**	**93,699**	**89,987**	**75,734**

Whereas the increase in the total amount of waste received has minimal impacts on operations, the increased number of cash customers creates bottlenecks in day-to-day operations. First, there is limited stacking/queue space before and after the scales; and second there are limited number of stalls for cash customers to unload. The impacts create congestion in site circulation that must be managed for keeping operations safe.

Tons received and traffic volume at West Van were updated with 2021 data. **Figure 2** illustrates that both waste received and number of trips to the transfer station declined from 2020, however remain above the previous four years.

Figure 2: West Van Inbound Tons and Trips



In **Figure 3** the estimated service areas for each transfer station are shown. The estimated service area for West Van is shown in light tan and overlaps in service areas with both CTR and Washougal. The hatched areas are projected for the expansion of the urban growth boundary as reported by Clark County Growth Management Plan. It demonstrates that the West Van service should experience an increase in density in future years thus the waste volume delivered should increase.

Figure 3: Map of County with Annexation

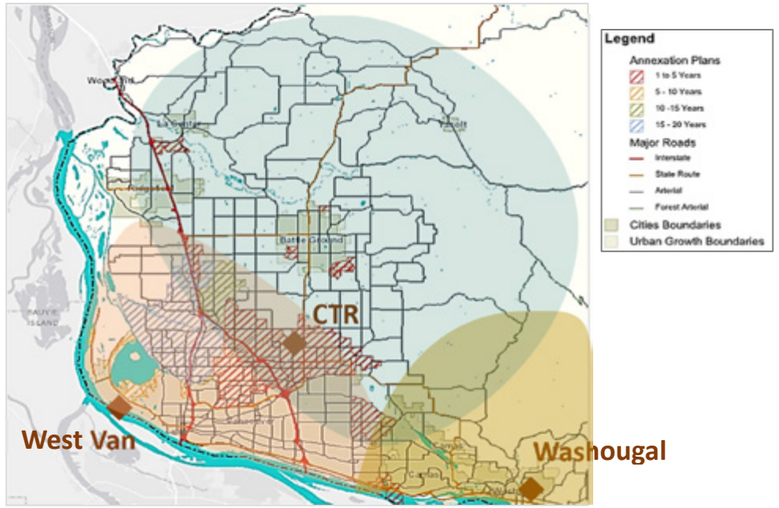


Table 2 below shows that the County will generate an additional 106,000 TPY by 2040. Depending on the assumption of how much of this waste is generated in the West Van service area, one scenario shows that 20% of the increase will be received at West Van.

Table 2: Estimated Service Area Waste Projections

Transfer Station Service Area	Assuming 50% UGB Growth in Central Area			Assuming 70% UGB Growth in Central Area		
	Population	% Change of Waste	Additional Waste (TPY)	Population	% Change of Waste	Additional Waste (TPY)
Service Areas						
Growth in City of Vancouver in North/Central County	40,961		41,780	57,706		58,860
Growth in Unincorporated North/Central County	49,227		50,212	49,227		50,212
Growth in North Cities	26,968		27,507	26,968		27,507
CTR Service Area:	**117,156**	**54%**	**88,734**	**133,901**	**62%**	**101,416**
Growth in City of Vancouver (25% of City & County)	20,840		21,257	20,480		20,890
Growth in unincorporated East County – Assume 20%	19,112		19,494	19,112		19,494
Growth in East Cities	18,748		19,123	18,748		19,123
Washougal Service Area:	**58,700**	**27%**	**44,459**	**58,340**	**27%**	**44,187**
West Van Service Area:	**40,961**	**19%**	**31,024**	**24,576**	**11%**	**18,614**
Total:	**216,817**	**100.0%**	**164,217**	**216,817**	**100%**	**164,217**

When the estimated increase in waste from growth is added to the current West Van waste received in 2019, the total waste would be about 125,000 TPY or 20% increase.

Using these preliminary projections, the increase in waste received at West Van is not that significant. However, additional space on the tip floor is needed to manage surges in waste quantities and perhaps an additional compactor to load containers. With just one compactor that means that when the compactor is out of service for repair there is no backup system. Also, the facility needs to be retrofitted to provide additional stalls for cash or self-haul customers to unload.

Transfer Station Conditions Assessment

In Phase 1 RSWSS a conditions assessment was conducted in 2019. From this review it was determined there were no immediate facility deficiencies to be addressed. The main transfer station and MRF structure were determined to be in good condition. However, many of the support structures were constructed in the 1990s and may be obsolete or in need of major renovation in the longer term. It was recommended that a site Master Facilities Plan be prepared to consider what improvements were

needed to existing facilities and what modifications and expansions were needed to address long term solid waste services for the regional system.

Since this assessment there are several new developments that need to be considered in preparing a master plan as follows:

1. Based on current negotiations with CRC it is expected the MRF will be relocated to another site.
2. The 2020 census data reveals the population in Clark County is higher than previous data and projections.
3. The number of stalls for unloading will need to be increased. The number of cash customers using the facility has increased significantly in the last two years. In 2021 the number of cash customers increased to about 65,000, an increase of 20,000 vehicles.
4. The State has passed new legislation requiring local governments to reduce the amount of food waste being disposed of in landfills.
5. The current food/yard waste collection programs in the City of Vancouver continue to grow and the City of Ridgefield has also started a similar program. This will require more space to be dedicated to handling food waste and/or mixed organics.
6. The City and County are considering public ownership options for the regional transfer station system.
7. The City has extended water service to this area. Assuming the facility can connect to provide water service the existing well and pump system can be replaced and relocated.

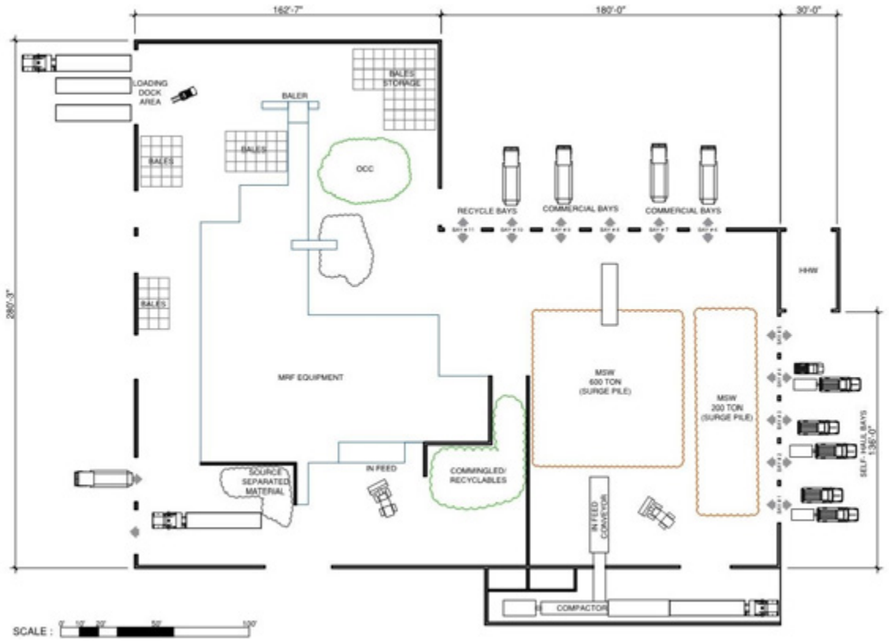
These new developments need to be included in updating the operational assessment and considered in preparing facilities plan for addressing the long-term service needs of the solid waste system.

Existing Tip Floor Operations

Since the facility was constructed in 1992 there has been no major expansion to the transfer station tip floor area. When the facility was first opened the total amount of waste generated in the County was 173,000 TPY or about 600 TPD. When CTR was opened in the early 1990s most of the County's waste was delivered to CTR. In 2021, West Van received over 116,000 tons of waste or roughly 30% of all waste generated in the County. The percentage of waste received at West Van has remained fairly constant over the past six years. Assuming West Van continues to receive a similar percentage of the total waste generated, by 2040 the total waste delivered to West Van is estimated to be about 138,000 TPY or 450 TPD. This is consistent with the service area analysis presented previously.

The current tip floor arrangement shown in **Figure 4** demonstrates that the facility does have sufficient space to receive and temporarily store 450 TPD. However, the amount of space needed is dependent on the load out capacity or time needed to remove all waste from the tip floor. A single compactor can load a container/trailer with 30 tons of waste in about 25 minutes or about 60 TPH. The amount of waste for each container could be more or less than 30 tons depending on the materials being loaded. It would take eight hours of continuous loading operations to remove 600 tons, and does not include interruptions in services whether it be equipment downtime or availability of containers to load. Also, West Van has no contingency if the compactor is out of service for extensive repairs.

Figure 4: Existing West Van Floor Plan



Another factor related to the capacity of the transfer station is the number of stalls available for customers to unload. As shown in **Figure 4** there are currently five-20 ft roll up doors (referred to as Bays 1-5) located on the south side of the building for self-haul or cash customers to unload. Each door opening may accommodate two self-haul vehicles to unload thus providing 10 stalls to unload. However, the door farthest to the west (Bay 1) is currently dedicated to accepting mixed food waste and yard debris collected in both the Cities of Vancouver and Ridgefield and is not available for self-haul customers. Bay 5 is limited for unloading as it must remain unavailable when the household hazardous waste (HHW) is open to accept materials. This leaves only three bays and six stalls that can be used to unload self-haul customers. Based on information in the Phase 1 RSWSS, during peak hours from 9 a.m. to 3 p.m. West Van experiences between 40 and 45 vehicles per hour. On average the typical self-haul customer will use 10 minutes to unload including the time to back in and exit. This means that a stall can handle five vehicles per hour. With only six stalls available on a consistent basis, the facility can handle on average, thirty vehicles per hour, which is much less than what is needed.

The County is considering opening West Van to self-haul customers on Sundays which may result in spreading out the current volume. It could result in more traffic particularly if some of CTR's current customers decide to use West Van. If all doors are dedicated to accepting self-haul customers, it appears there would be 10 stalls available and sufficient to handle the current volume of customers. But

changes to the circulation pattern should be considered to assure there is adequate queue space between the scales and the stalls.

On the east side of the transfer station there are six-20 ft doors (referred to Bays 6-11) for collection trucks to unload. One bay is used for access of the front loader equipment. All compactor and roll off trucks hauling waste use three bays (Bays 7-9) thus providing four to six stalls to unload. These vehicles will unload in approximately five minutes thus, conservatively each bay can receive about eight vehicles per hour. Currently, 50 to 60 collection trucks enter the facility each day with possibly 16 vehicles at peak hours. Thus, a minimum of three stalls will need to be available.

Bays 10 and 11 are used by trucks with commingled recyclables that serve the entire County. There are about 60 collection trucks with recyclable materials that arrive at West Van five days per week. A few trucks (less than 10) also deliver recyclables on Saturday. As long as the MRF continues to operate at West Van these stalls must remain dedicated to unloading the recycling collection trucks. If the MRF is relocated, then these stalls can be used by other customers.

Existing Traffic Circulation

Access to the West Van facility is from a local service road used by several local businesses including the barge loading operations to transport waste to the Finley Butte Regional Landfill. The facility entrance is just 200 ft west of NW Old Lower River Road. All traffic entering and exiting the facility uses this one access point as shown in **Figure 5**.

Figure 5: West Van Entrance and Scale Complex

When entering the site all traffic is directed to a single scalehouse complex that has three inbound and two outbound lanes. All inbound customers must use a single lane with a scale to weigh in. CRC recently installed a second scale dedicated to allowing commercial collection trucks to use a separate lane to weigh in. The third lane is a bypass lane used by transfer trailers and commodity trucks to enter the facility without being weighed. The commodity trucks are used to ship recycled materials to markets.

After weighing in the scale complex self-haul customers are directed to turn left where they queue up for an available stall to unload at the transfer station. Self-haul customers can also access either or both the recycling and HHW waste drop off areas. WCW collection trucks will enter the same access lane and proceed to unload on the east side of the transfer station and MRF.

Currently, traffic can back up off the service road and onto Old Lower River Road. Since this road has very little through traffic it does not create a significant congestion problem at the intersection, but it is not a desirable conditon. The new scale serving the commercial trucks will help to relieve the potential for backup onto the Old Lower River Road.

All traffic including self-haul customers, collection trucks, transfer trailers, and commodity trucks must exit at this same entrance. Vehicles that need to weigh out use the outbound scale lane while other vehicles can use the bypass lane.

The site circulation near the entrance is quite congested at times. This is a result of the close proximity of the entrance to the main transfer station building and where vehicles unload. It is further complicated due to the location of the HHW and the recycle drop off area. Site circulation for the various customers using the facilities has evolved over the many years of operations as new services and programs have been adopted. **Figure 6** captures the complexity of traffic patterns.

Figure 6: West Van Traffic Patterns

Master Plan Considerations

Near Term Issues

1. A critical need is to establish the location and facilities needed for top loading operations. An immediate need is to have capabilities to top load food waste/mixed organics.
2. Extend the city waterline to provide water service and replace the current ground water pump and tank system used for fire suppression.
3. Consider the location for the second compactor.
4. Develop plans to reduce congestion and eliminate offsite queue issue.
    a. Consider adding a new access for transfer trailers/containers off Old Lower River Road.
    b. Consider a new exit road for containers being shuttled to the barge facility.

Longer Term Issues

The West Van facility is located on 21 acres. The back seven acres are currently used for receiving and processing yard debris and wood waste. It also includes a bale storage structure and container/bin storage and other support activities. The County should consider how this space can best be used to provide waste management and recycling services in the future.

Also, the MRF processing operations are expected to be relocated to a new facility. Once the equipment line is removed the space can possibly be used for other servceis. Options may include:

1. Receive and process C/D materials.
2. Process organics – including food waste, green waste, and wood waste.
3. Other operations as deemed necessary for providing waste management and recycling services.

Organics Management

The State of Washington recently passed HB 1799 that directs local jurisdictions to reduce organic materials disposed in landfills by 75% before 2030. In 2021, the County generated 415,000 tons of MSW. Based on a waste composition study preapred for the City of Tacoma (2014) food waste represents about 20% of MSW. Using this data indicates the County discarded of 83,000 tons of food waste in 2021. If 75% is removed, the County would need to find an alternative for 62,000 tons of organics. The volume of organics collected at West Van would be about 35,000 tons in 2040.

West Van received 23,000 tons of yard debris and wood waste in 2021. Of this total, 11,800 tons were reported to be received from Portland Metro. Therefore, only 11,200 tons of these organic materials were collected in the County. The facility also received almost 1,500 tons of source separated food waste inside the transfer station. These materials are processed and then transported to the Dirt Huggers Compost Facilty. One component of the West Van master plan will be to evalaute options for managing organics in response to this new legislation.

Basis of Master Plan Data

Based on the findings from Phase 1 RSWSS (**Appendix A**) and the recently passed HB 1799, the design data in the following **Table 3** and **Table 4** is recommended to be the basis of the West Van Master Plan.

Table 3: West Van - Basis of Master Plan Data

Category		Existing	2040 Projection	% Change
Waste Quantities (MSW)				
Annual	Tons	116,719	150,000	29%
Ave Daily	Tons	400	550	38%
Peak Daily	Tons	450	600	33%
Customer Trips				
WCW				
All Commercial	Annual	25,428	33,000	30%
	Daily	110	127	15%
	MSW	50	65	30%
	Recycle	60	75	25%
Self-Haul/Cash	Annual	64,559	84,000	30%
	Daily	227	300	32%
Organics		**Tons/Year**	**Tons/Year**	
Yard Waste				
	County	5,514	7,200	31%
	Metro*	11,800	N/A	
Wood				
	County	5,465	7,100	30%
	Metro*	245		
Mixed Organics				
	Source Separated	1,416	1,840	30%
Food Waste – MSW				
	Vegetative	13% 15,173	22,230	47%
	Other	8% 9,200	13,700	49%
		24,373	35,930	47%
	Source Separated	12,395	16,140	30%
Total Organics	MSW + SS	36,768	52,070	42%

*Material that originates from the Portland Metro region

Table 4: Clark County Population Projections

Clark County Population Projections					
City or Area	2010 Census	2020 Census	% Increase	2040	2020 to 2040 % Increase
Battle Ground	17,571	20,743	18.05%	29,698	43.2%
Camas	19,355	26,065	34.67%	37,712	44.7%
La Center	2,800	3,424	22.29%	5,060	47.8%
Ridgefield	4,763	10,325	116.78%	16,716	61.9%
Vancouver	161,791	190,915	18.00%	272,837	42.9%
Washougal	14,095	17,039	20.89%	24,140	41.7%
Woodland (part)	0	84		119	42.0%
Yacolt	1,566	1,668	6.51%	2,344	40.5%
Incorporated Clark County:	**221,941**	**270,263**	**21.77%**	**388,625**	**43.8%**
% Incorporated:	52.2%	53.7%	2.91%	54.0%	0.5%
Unincorporated Clark County:	**203,422**	**233,048**	**14.56%**	**331,503**	**42.2%**
% Unincorporated:	47.8%	46.3%	-3.18%	46.0%	-0.6%
Clark County:	**425,363**	**503,311**	**18.33%**	**720,128**	**43.1%**

Source: Washington State - Office of Financial Management, Forecasting and Research Division

Appendix A

Findings from Phase 1 RSWSS

One recommendation was to consider developing a long-term master site plan. This plan would be prepared in conjunction with the evaluation of the infrastructural needs identified from updating the long-term Solid Waste Management Plan. Examples of this are as follows:

1. One system option may be to construct a new MRF in a central location to both collection routes and provide transportation access to regional markets.
2. If the MRF is relocated, it will free up a large building that could be repurposed for other service needs. One concept could be to provide a construction/demolition recycling facility.
3. A decision to reduce food waste and organics from being disposed in landfills as directed by the new state law, the MRF building could be repurposed to process these materials. This is a trend in other states.

The master plan can be prepared to establish how these facilities can be implemented with the caveat they may not be built immediately but can identify the space needs for such operations. By completing the master plan, it would help prevent spending good money after bad money on new facilities.

Central Transfer and Recycling Facility Master Plan

Basis of Master Plan Report

Prepared by JRMA
May 30, 2023

Introduction

Central Transfer and Recycling (CTR) facility is located on Washington State Route 503 in central Clark County near Brush Prairie. It serves the largest area of the County and is the area projected to have the most growth over the next 20 years.

Figure 1: Current CTR Site Plan

The facility resides on an irregularly shaped parcel of land and includes three main structures that make up the facility operations. The solid waste transfer station is the main structure. There is also a recycling building, an HHW building, and an administrative and operations office building. The facility was originally constructed circa the 1970s. In 1991, a new 38,000 sf transfer station was added to replace the original transfer building. MSW is loaded into containers that are shuttled 13 miles to a barge loading facility located at the Port of Vancouver on the Columbia River near West Van. Waste is then barged more than 200 miles to the Finley Buttes Regional Landfill in Boardman, Oregon. In addition to managing the area's waste, CRC operates a recycling and HHW waste drop-off center. **Figure 1** above provides an aerial photo of the site operations.

The original building was expanded and converted to the recycling and HHW building. An automatic scale system for route trucks was installed in 2012.

Key Findings from Phase 1

<u>Review of CTR Conditions Assessment</u>

The limited structural and site improvement condition assessment reveals that most of the assets at the site are in fair to good condition, except for the recycling building, paved areas east of the boundary retaining wall, and the infiltration portion of the stormwater system. A summary of the key points are as follows:

- The transfer station and HHW buildings (see **Figure 1**), the north boundary retaining wall, and the south boundary retaining wall are in **good** overall condition.

- The recycling building next to the HHW building is in relatively **poor** condition. It is our recommendation that a detailed structural investigation be implemented as part of the planning process when considering public ownership of the site.
- The drive aisles that course through the site are paved with asphalt concrete pavement. Some areas of the paving are in very **poor** condition and require rehabilitation. We recommend worn surface areas be repaired or replaced.
- The east boundary buffer is in **poor** condition due to the trees and tree roots impacting the pavement section and curb. The pavement section and the damaged curb should be repaired or replaced.
- The existing pump station for the sanitary sewer system is a duplex pump system with two pumps that alternate pumping discharge of the sanitary sewer effluent. According to facility staff, one of the pumps failed in September 2019 and was replaced in the fall of 2019. CRC provides routine maintenance of equipment. The pump station is in **good** condition.
- The scale house and the scale booth were not assessed since they were to be replaced in the near future (it was replaced in December 2019). The domestic water system was not assessed since it is owned and maintained by Clark County Public Utilities.

Structural and civil condition assessments were limited to those areas that are readily accessible and visible to the field staff. Concealed conditions that become exposed in the future may change our current recommendations.

<u>Site Circulation and Unloading Stall Capacity</u>

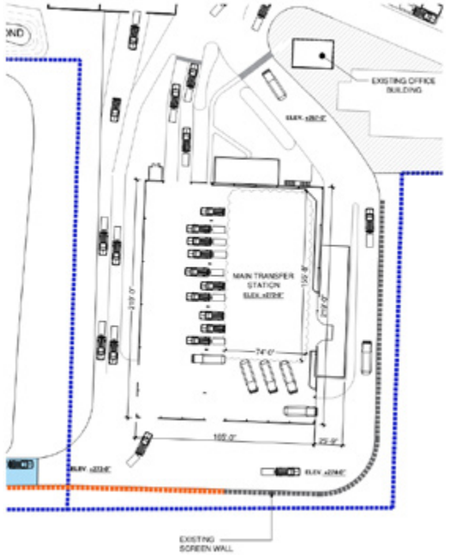
When CTR was constructed in 1991, it was not designed to accommodate the current levels of traffic, or the different activities and services currently provided.

Daily traffic at CTR averages 50 to 60 vehicles per hour. An unloading stall is expected to handle six vehicles per hour, giving 10 minutes per vehicle to maneuver into the stall, unload, and exit. Some vehicles, such as cars and pickups with less waste, will unload faster. However, vehicles with trailers and those with hydraulic tippers typically take longer. Therefore, in non-peak times, 10 to 12 stalls are sufficient for unloading.

During peak times, customer traffic can increase from 80 to as many as 100 vehicles per hour. At this volume, the facility would need to dedicate a minimum of 13 stalls for unloading during peak weekday times and 17 to 20 stalls during peak weekend times. **Figure 2** on the next page shows the tipping floor and vehicle unloading capacity (north is the left side of the figure). With the two northernmost stalls dedicated to source-separated cardboard, green waste, and clean wood (red circled area), there are only 11 stalls for unloading waste. On weekends, CTR can use the south drive aisle to route vehicles to unload. After unloading, these vehicles will exit the southeast door (blue circle) and drive to the outbound scale (green circle).

Also depicted in **Figure 3** is how transfer trucks, when loaded, exit the facility. The truck and trailer must intersect with other outbound traffic and will need to access the scale.

Figure 2: Tipping Floor Capacity



CRC does a good job managing traffic and ensuring vehicles can safely unload in the transfer station. Spotters are located at the entrance and on the tipping floor to guide customers to the appropriate stalls. Although the current facility does not have enough stalls to unload quickly during peak times, there is space for customers to queue onsite before entering the transfer station. However, when exiting the transfer station from the southeast door (blue circle), there is approximately 550 feet before the outbound scale, queue space for 20 to 22 vehicles. Routing vehicles in this direction can reduce the traffic queue exiting the transfer station. However, there is only one scale dedicated to processing all outbound customers and to weigh out transfer trucks.

The amount of customer traffic on weekends and during peak seasons also impacts the overall site circulation. The primary place of congestion is the outbound lanes before the scales. As shown on the site circulation map in **Figure 3**, all traffic must converge on two lanes including transfer trucks loaded with containers bound for the Tidewater loading dock.

Figure 3: CTR Site Circulation

Outbound traffic conditions may be improved by decreasing the time to process customers; however, the physical space for vehicles to line up to be weighed out as well as those to use the bypass lane is very limited. If the station is to make improvements to eliminate the off-site queue, it would also be desirable to consider modifications to remedy both the outbound scale capacity issues and the site circulation restrictions.

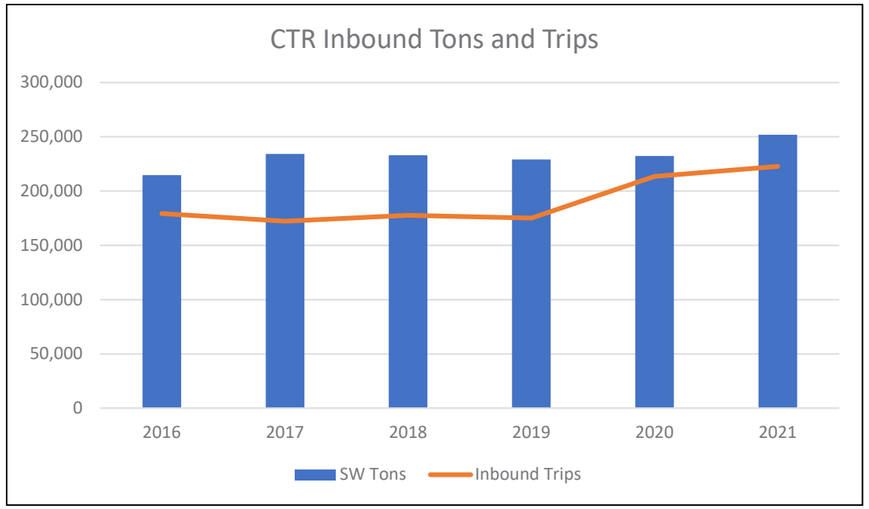
Impacts of Growth Management in CTR Service Area

Clark County has grown about 2% per year since 2010 (approximately 60,000 people from 2010 to 2019), and based on recent data from OFM, it is expected to continue at this rate for the next 20 years. The central and northern portions of the County, served by CTR, are expected to experience most of this growth, as predicted in the Growth Management Plan. The updated waste projections show that projected growth for this area could result in more than 100,000 tons of additional waste being generated per year in the next 20 years.

Growth has resulted in increased development of adjacent properties around CTR. The apartment complex on the northside of CTR has expanded, and now sits within 15 feet of the north retaining wall. Property on the west side of 112th street has been developed with new single-family houses. On the south side of the transfer station, a storage unit facility and private school were recently constructed. CRC owns eight acres located on the west side of CTR, providing a buffer between the new residential development and the transfer station. A new scale complex designed to eliminate off-site queueing problems is proposed by CRC for this property. These recent changes in the development of adjacent properties will need to be considered in deciding future changes to operations and future facility improvements.

CTR continues to experience increases in total waste volumes and the number of customers using the facility. The following is updated data that shows the increase over the past 2 years. Also, CTR is the only transfer station open on Sundays and therefore must serve the entire County. The traffic on weekends may be impacted if the County decides to expand the hours of operations at the Washougal and West Van transfer stations.

Figure 4: CTR Inbound Tons and Trips



Considering the increase in volume and number of self-haul customers, CTR is currently at operating capacity. This operating capacity is based on current waste quantities and hours of operation at about 900 TPD. If the waste exceeds the capacity, CRC will process the waste to ensure it is removed from the tip floor and not stored overnight. There were several observed deficiencies during the consultant team's site visits and review of data. It is important tounderstand that these deficiencies are a result of the physical conditions and limitations of the original design to handle the increase in customers and waste volume experienced over the past 30 years. CRC executes day-to-day operations to manage the current waste streams and traffic in a safe and efficient manner, given these physical constraints.

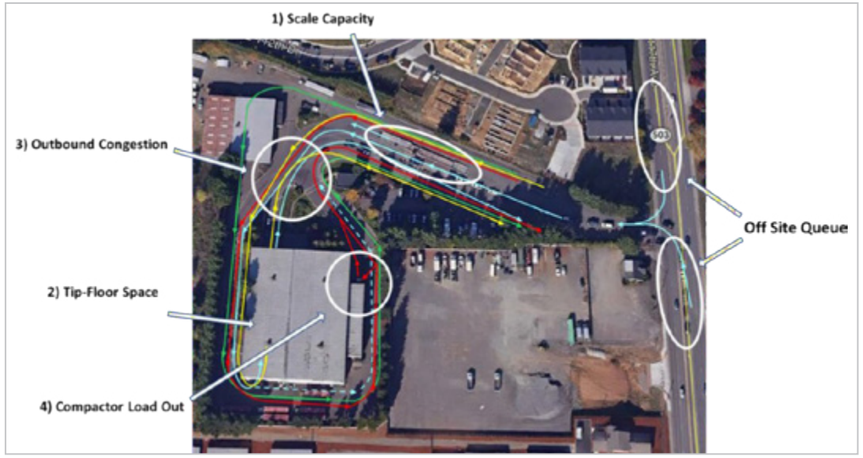
Tons received and traffic volume at West Van were updated with 2021 data. **Figure 4** illustrates that both waste received and traffic on site continue to grow at CTR.

Based on the assessment of current operations, the following site constraints and deficiencies were noted (as shown in **Figure 5**).

1. **Scale Capacity:** CRC is considering adding a second in-bound scale to increase thequeuing for in-bound traffic.
2. **Tipping Floor Space:** The current facility does not have sufficient space for vehicles to unload and limited space to handle surges in waste volumes.
3. **Congestion at Exit Lanes:** All traffic exiting the site must make a left turn into two outbound lanes. Transfer trucks are subjected to a hairpin-like turn and therefore use both lanes to access one outbound scale. The competition for the outbound scale and exiting is not a desirable condition and is exacerbated by the increase in waste quantities and increase in self-haul traffic.
4. **Compactor Load-Out Capacity:** With the current operating hours (12 per day), the compactor can only loud out about 900 TPD. CTR averages between 800 and 900 TPD. There are some days during peak periods where CTR receives between 900 and 1,100 tons. CRC reported that on occasions when waste of more than this capacity is received, they will

load this material into trailers/containers to ensure it is not stored overnight.

Figure 5: CTR Operations Assessment



Summary of CTR Conditions

The CTR was not designed to handle the current waste volume and traffic conditions. The demand for services has increased greatly, particularly in the past five years. CTR is centrally located, has been well-maintained, and is in relatively good condition. There are improvements that can be made to not only deal with the current off-site queue, but also to improve overall site circulation and enhance the material handling needs. Changes could include expanding the transfer station building to provide space for unloading and floor storage. The additional areas would provide space for unloading construction and demolition (C&D) waste for processing that could divert this material from the landfill. Added space to handle green waste and wood could also contribute to higher material recovery. The key question to address is what level of investment should be made at CTR in conjunction with other regional service needs.

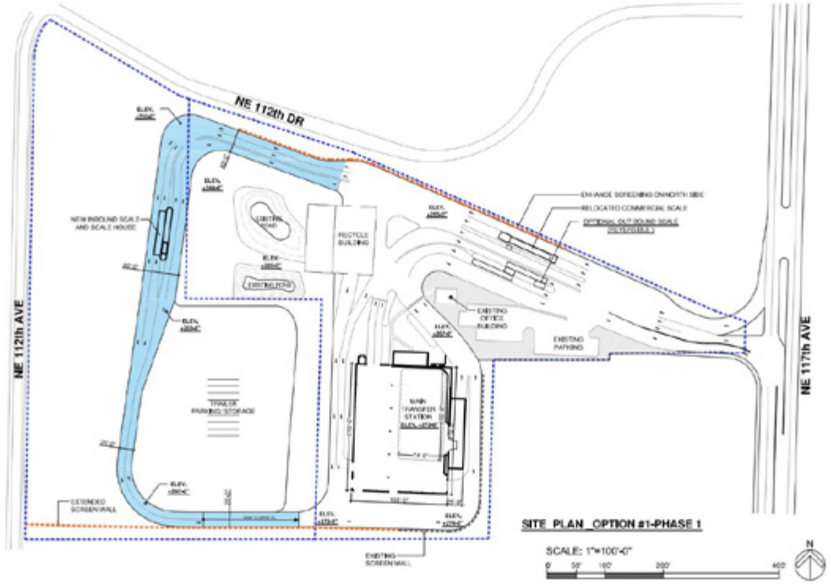
The answer to this question remains to be determined. In Phase 1 RSWSS, Chapter 5 – North Area Service Options presented what facilities are needed to serve this area. In Chapter 5, four options were developed. Drawings for those can be found in Appendix A of the RSWSS. The report identified two short-term improvements and settled on option 1.

The most immediate need identified in the system was to make improvements at CTR to address safe ingress and egress off Hwy 503. The first step was to modify the entrance to allow for two separate lanes entering the facility. This improvement is complete and there are no left turns permitted when exiting the station. Now all vehicles exiting CTR can only turn right and travel south on Hwy 503. Customers originating from north of CTR, such as Battle Ground, Ridgefield, La Center, and Yacolt must find a route to return to the north county.

The second improvement was to add lanes for inbound customers and eliminate any vehicles from queuing off-site onto the highway shown in **Figure 6**. This would allow customers to travel a much

longer entrance road to a new scale for weighing in. This was not completed and is included in the master plan improvements.

Figure 6: Proposed Inbound Lane Addition



To address the question of how to best serve the north and central portion of the county, the Phase 1 report evaluated the options for serving the north service area. These three options were compared to the options for making improvements at CTR. The north-central portions of the County are projected to experience the largest percentage of growth over the next 20 years. This growth has resulted in increased waste volumes and traffic at CTR and the need to make investments in facilities to manage the current conditions. However, to improve current deficiencies at CTR and manage future growth in this service area, additional investments in the system will be necessary. Updated projections show an increase in volumes to all County facilities with CTR expected to experience an increase of more than 100,000 TPY or 40% by 2040. The options for meeting the future infrastructure needs of the northcentral County were identified in the Phase 1 report.

The three distinct options identified are summarized as follows:

1. Make major improvements at CTR to address current and future service needs.
2. Make minimal improvements at CTR and site and build a new satellite transfer station to serve the northernmost portion of the County and relieve some of the customer traffic using CTR.
3. Replace CTR with a new transfer station designed to handle future growth. This alternative recognizes the need to minimize impacts to the residential properties adjacent to CTR; it is important that CTR be a good neighbor.

For each option, conceptual facility plans were developed to provide planning level construction cost estimates.

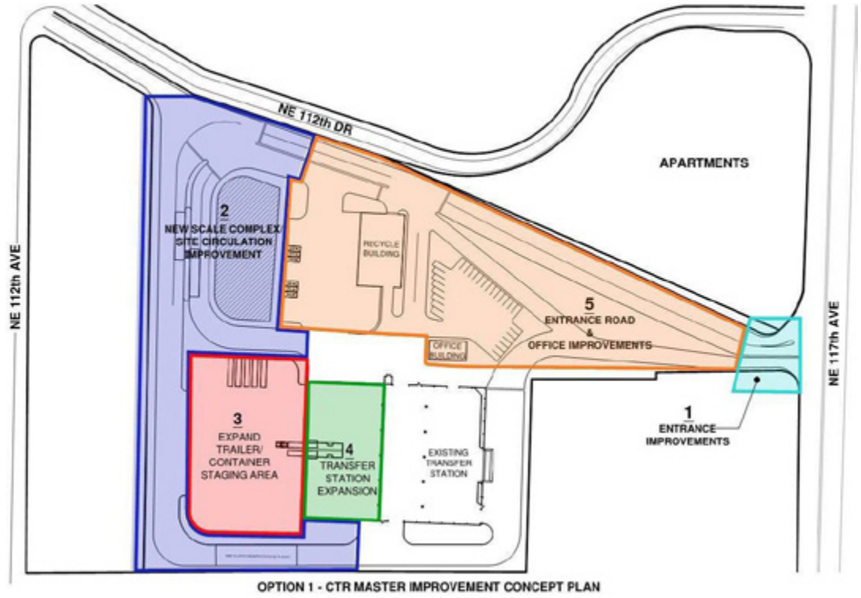
Decisions on a new transfer station and whether to move the MRF to a new location from its current location at West Van have not been made since the Phase 1 report was finalized. There has also been no decision made on the ownership of the facilities, so a summary of each developed option is as follows.

Option 1: Make Major Improvements at CTR to Address Current and Future Service Needs

This option assumes the CTR Transfer Station will make major improvements to address the current operational deficiencies and provide the infrastructure to manage waste resulting from growth in the central and northern part of the County. Improvements at CTR will be made to meet capacity needs for the next 25 plus years.

JRMA prepared several concept site plans that incorporate significant improvements to meet the needs of CTR's future conditions. These have been reviewed by the County and CRC and are the basis of the improvements listed; however, more analysis is needed to develop a final site master plan. A primary guiding principle in developing the new site plan has been the need to construct the facilities while maintaining the current operations. Therefore, the intent of the infrastructure improvements is to meet the capacity needs in a phased approach so that the facility can remain open to customers during the construction period. These improvements are captured in **Figure 7 below**.

Figure 7: Option 1 – CTR Improvements



The option to expand CTR was used in the Phase 1 RSWSS to identify the capital investments needed to address near term deficiencies in current operations and to evaluate the best approach for expanding the facility to meet demands of the north services area. To meet this demand, the facility would require

expansion onto the adjacent property owned by CRC. As a result, the report identified several issues that need to be addressed prior to making a final decision on whether to expand CTR.

First, this adjacent property would need to obtain a land use permit to allow the planned expansion. Recognizing that the adjacent properties are now zoned for residential and have been developed will need to be considered if CTR is to expand onto adjacent property. In contrast, if a decision was to close CTR and build a new transfer station it also is subject to a siting and permitting process.

Second, the adjacent property is believed to have been part of an old landfill that closed many years ago. This raises questions as to what impacts these conditions may have in redeveloping the adjacent parcel.

Third, the only access to the facility is off Hwy 503, a major north/south transportation corridor in the County. The entrance to CTR has been improved to enhance safe ingress and egress by eliminating the left turn for outbound traffic. Also, the Washington Department of Transportation will not permit a traffic signal to be installed. Thus, the site will need to contend with the high traffic volume on a long-term basis with the current entrance. Although certain improvements included in the site plan can relieve queueing onto the public right of way, traffic on Hwy 503 will increase as the north area of the county grows.

<u>Option 2: Make Minimal Improvements at CTR and Site/Build a New North SatelliteTransfer Station to Accept Primarily Waste from Self-Haul Customers</u>

This option assumed minimal investments at CTR. The improvements were targeted to advance onsite conditions to handle existing traffic. It recognized that adding any more traffic with access off Hwy 503 and accepting more waste at CTR as the region grows is less desirable. However, CTR is centrally located and with minimal investments, the facility can handle current traffic more efficiently. **Figure 8** on the next page depicts the proposed improvements to the existing CTR facility to address the immediate needs. In addition to improving site circulation and eliminating offsite queueing, a small building constructed on the west side of the existing transfer station may be feasible. This new structure is considered an optional investment to address self-haul customer traffic and provide additional unloading stalls. The improvements to CTR are expected to include the following features:

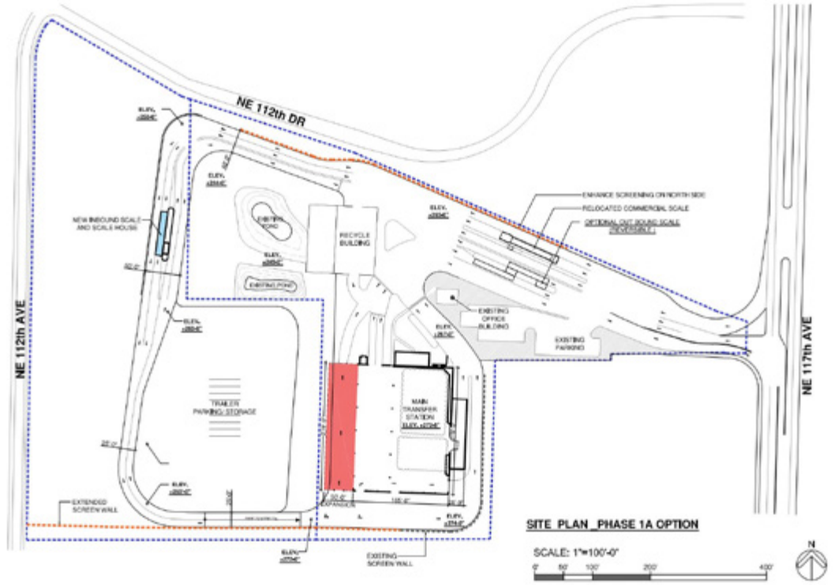
1. Modify entrance to accommodate lane separation for onsite queue and possibly construct access to the adjacent property on the west side like option 1.
2. Regrade and pave the back property to provide an area for staging trailer/containers for transport to the disposal site. An access ramp to the south side of the transfer station would be constructed.
3. Add new scales and gatehouse to handle self-haul traffic during peak hours on WCW property on CTR's west side.
4. Expansion onto the adjacent west property is predicated on the assumption that the underlying soil conditions are suitable to support new structures and that land use approval is obtained.

These are minimal improvements to mitigate near-term operating deficiencies, assuming a long-term plan of siting and building a new satellite transfer station/convenience center to serve the north area.

The expanded transfer station would serve to improve overall operations until a satellite station was sited and constructed. Under this approach once the satellite station is operational, CTR would only receive waste from commercial collection trucks. This would positively impact neighbors by reducing

traffic since the facility would not receive waste from self-haul customers. Also, impacts on neighboring properties would be greatly reduced on weekends with no self-haul traffic and limited operations.

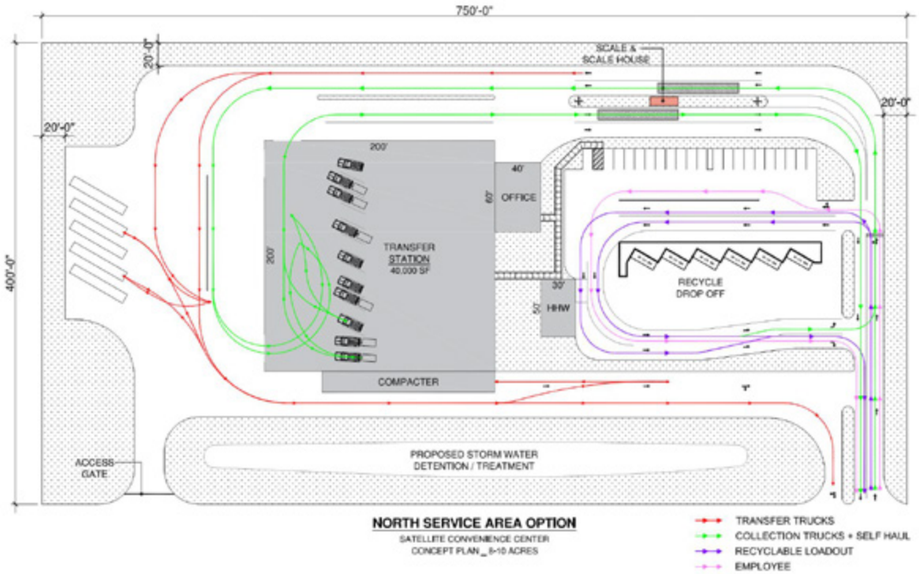
Figure 8: CTR Improvement Option



Option 2 also includes siting a satellite transfer station often referred to as a "convenience center" to receive waste from self-haul customers. The new convenience center would be a smaller structure but large enough to ensure capacity to handle future growth. Typically, convenience centers are open seven days per week but the days and hours for operations can vary depending on the local jurisdiction's policies and practices.

Figure 9 on the next page shows a concept plan for a typical satellite facility. The actual size and site configuration will vary based on local conditions and determined by the desired services to be provided.

Figure 9: Option 2 – CTR Satellite Station



Features for a new northern area satellite transfer station may include:

1. A minimum site of six acres of commercial/industrial zoned property is located on a minor arterial road. However, it would be desirable to have seven to ten acres.
2. A new convenience center/transfer station (Estimated to be approximately 16,000 to 20,000 sf building) to handle up to 400 TPD.
3. Recycling /HHW drop-off center.
4. Scale complex with one inbound and one outbound scale and gatehouse.
5. Top load trucks from the floor and no compactor.

It would be expected to take a minimum of three years to site and permit the new facility, but this is just an estimate, and permitting a new site could be longer depending on local zoning requirements. This assumes that conducting the siting process with public involvement would take 12 to 18 months. The timeline for zoning approval would be similar (12 to 18 months) considering it would require a conditional use process. Design and construction would occur over two years meaning a new facility may take a minimum of five years before it would be operational.

Benefits of this new north area facility include:

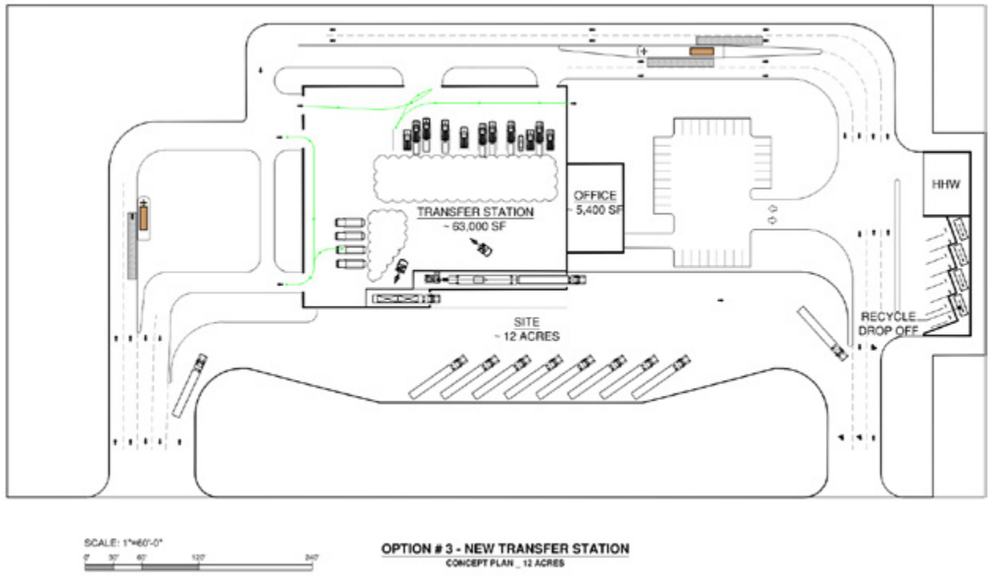
1. Improves onsite queue and circulation issues at CTR.
2. Increases scale capacity and assumes new scale house software to improve transaction times.
3. Increases space to provide stalls needed for self-haul and cash customers to unload more safely during peak conditions.
4. Provides some separation of self-haul vehicles from WCW collection trucks under peak conditions.
5. May increase needed capacity to loadout waste.
6. Provides additional floor space for flexibility in managing different waste streams.
7. Adds new facility to serve the fastest growing area of the County.
8. Eliminates self-haul customers at CTR which reduces operating hours and days, benefiting neighbors.
9. Reduce overall traffic at CTR and may reduce drive times for self-haul customers when a satellite facility is operational.

Option 3: Replace CTR with New Transfer Station at a New Location

The CTR Transfer Station was not designed to handle the traffic and quantities of waste currently received. Over the past five years, there have been many new developments in the surrounding properties. This includes new residential developments as well as a new school and church. With the expected growth, the County may decide that it may not be the best long-term site to invest in. One option is to make minimal investments in CTR to address immediate operational needs and establish a new location to serve the long term.

To provide future waste management and recycling services, a modern transfer station would be sited and constructed. Ideally, the new station would still be somewhat central to most of the population it serves and be located on commercial /industrial zoned property with access off an arterial or major collector street. It would be located to serve the current service area as well as the growing area of the North County cities. **Figure 10** below shows the proposed concept site plan for a new transfer station to replace CTR.

Figure 10: Option 3 – New Transfer Station



The following describes the key features of a new transfer station:

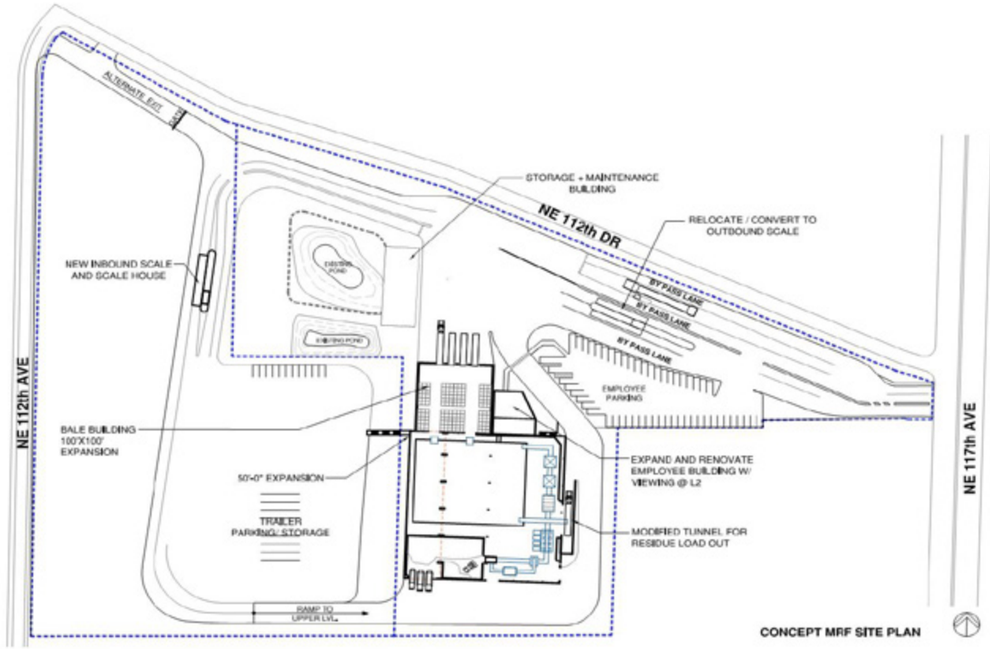
- A minimum site of 12-acres of commercial/industrial zoned property located on a minor arterial road.
- A new transfer station building (approx. 70,000 sf building) to handle up to 1,500 TPD.
- Minimum of two (2) load-out ports equipped with compactors and one top load port to be used as backup and for other materials.
- A recycling / HHW drop-off center.
- Preferably a separate or split access drive for collection trucks to separate from self-haul traffic for safety reasons.
- Separate scales for weighing collection trucks with RFID readers and the capability to weigh out vehicles.
- Parking area for staging trailers and containers.
- Office and employee break/restroom and training area.
- Possible education center for tours.

This facility would also incorporate green design features such as natural lighting, recycled-content building materials, water conservation features, renewable energy features, modern odor, and dust control systems.

MRF Option: If CTR Closed

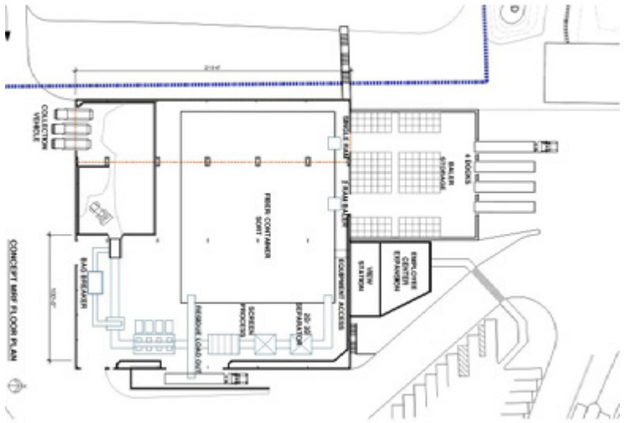
If CTR was closed to receiving MSW from both commercial collection trucks and self-haul, one option to consider would be to repurpose the facility into a MRF. Repurposing CTR would result in lower system costs since to site, permit and construct a MRF at a new location would require more capital. **Figure 11** shows a concept for converting CTR to a new MRF.

Figure 11: Concept MRF Site Plan



As shown on the conceptual floor plan the primary expenditure to convet CTR would be to expand the struture by adding a bale storage and shipping buildng on the north side.

Figure 12: Convert CTR to MRF - Floor Plan



Basis of Master Plan Data for North Service Area

Based on the findings from Phase 1 RSWSS and the recently passed HB 1799, the updated design data in **Table 1** and **Table 2** is recommended to be the basis of the West Van Master Plan. This Basis of Master Plan considers that new census data and waste quantities received have resutled in new projections.

Table 1: CTR - Basis of Master Plan Data (Updated per 2020 Census)

Category		Existing Transfer Station	Future (20 Years)
Building Space			
		38,000 sf - 36,136 excl. loadout	Space need defined by criteria
Waste Quantities			
Annual	Tons	251,847	353,263
Average	Tons/Day	900	1,200
Peak	Tons/Day	1,100	1,400
Traffic/Unloading Capacity			
Commercial	Ave Per Day	100	130
	Ave Per Hour	25	30
Commercial Stall		4 to 5	5
Self-Haul Weekday	Peak	600	780
	Per Hour	70	90
Weekday Stalls		14	18
Self-Haul Weekend	Per Hour	100	130
Weekend Stalls		20	26
*Assumes 1 stall is 5 cars an hour			
Operating Space			
Available area to stack waste, handle surge, and load trailers. Excludes maneuvering and stall for unloading			
Need		13,000 sf	18,000 sf (1 day storage + 10% operations)
Available		11,000 sf	
Average		900 TPD	1,200 TPD
		30 ton payload	
		30 trailer loads	
		25 minutes 12.5 hours*	16 hours @ existing
Peak		1,100 TPD	1,400 TPD
		15 hours*	20 hours @ existing
*Assumes no disruptions			
Trailer Parking			
		Space for 4	Assume 8 trailers for staging
		Minimum 6,000 sf	12,000 sf
Scale Capacity/Transactions			
Inbound - 1 - SH scale		80 vehicle/hour	120 vehicle/hour
Outbound - 1 SH scale shared with transfer trailers		80 vehicle/hour	120 vehicle/hour
*Note both inbound and outbound scales at 45 seconds/transaction			

Table 2: Clark County Population Projections

Clark County Population Projections					
City or Area	2010 Census	2020 Census	% Increase	2040	2020 to 2040 % Increase
Battle Ground	17,571	20,743	18.05%	29,698	43.2%
Camas	19,355	26,065	34.67%	37,712	44.7%
La Center	2,800	3,424	22.29%	5,060	47.8%
Ridgefield	4,763	10,325	116.78%	16,716	61.9%
Vancouver	161,791	190,915	18.00%	272,837	42.9%
Washougal	14,095	17,039	20.89%	24,140	41.7%
Woodland (part)	0	84		119	42.0%
Yacolt	1,566	1,668	6.51%	2,344	40.5%
Incorporated Clark County:	**221,941**	**270,263**	**21.77%**	**388,625**	**43.8%**
% Incorporated:	52.2%	53.7%	2.91%	54.0%	0.5%
Unincorporated Clark County:	**203,422**	**233,048**	**14.56%**	**331,503**	**42.2%**
% Unincorporated:	47.8%	46.3%	-3.18%	46.0%	-0.6%
Clark County:	**425,363**	**503,311**	**18.33%**	**720,128**	**43.1%**

Source: Washington State - Office of Financial Management, Forecasting and Research Division

Basis of Master Plan Additional Considerations

Prior to making any large investments at CTR a decision on which option is best for serving the north/central county should be implemented. However, each of the options will require several years to site and permit. Even after the permits are secured final design and construction will require a minimum of two to three years. Given this timeline improvements at CTR should be to eliminate potential for offsite queueing onto Hwy 503. Also, the option to expand the existing structure and provide added tip floor space may be beneficial in both the short run and for the long term if Option 2 is selected.

Organics Management

CTR processed approximatly 1,500 tons of yard debris in 2021 and no source seperated commercial food waste. This material is reloaded and sent to Dirt Hugger, a compose facility in Dallesport WA. With the passed HB 1799, the design for CTR will include the continued collection of yard debris and provide options for expanding reload capacity in the future. The site as currently used is not supportive of any preprocessing options for organic material.

Pending an organics feasibility study, it is recommended that space be allocated for the collection of both yard debris and source seperated commercial food waste for reloading in any proposed facility. In the event of the siting of a full service transfer statation, proper space should be allocated for preprocessing equipment to provide flexibility.

North Service Area Options

Investments in the future needs of CTR will need to be made depending on the negoiations with CRC and the County and consideration of options relating to the North Service Area Options. The options for consideration have been described in the Summary of CTR section of this report. The three options are:

- Option 1: Make Major Improvements at CTR to Address Current and Future Service Needs
- Option 2: Make Minimal Improvements at CTR and Site/Build a New North SatelliteTransfer Station to Accept Primarily Waste from Self-Haul Customers
- Option 3: Replace CTR with New Transfer Station at a New Location

Option one has some issues that would make it an unlikely choice. At the back of the property is an old inert landfill and stability for building is questionable on this part of the site. There is also a different zoning for the back lot of CTR meaning a conditional use review would be needed to develop it and the neighborhood characteristics have changed since the site was first developed making any expansion much more difficult. It is recommended that the County conduct further evaluation of these options once negotiations are complete. A decision on the MRF could also influence preference for one option over another.

Washougal Transfer Station Master Plan

Basis of Master Plan Report

Prepared by JRMA
January 10, 2023

Introduction

This document reviews the findings from the 2021 Phase 1 Regional Solid Waste System Study (RSWSS) as well as incorporates updates in data and changes since publication. This document will highlight information needed for consideration of what improvements/modifications should be prioritized and used to prepare a master plan for the Washougal Transfer Station (Washougal). Preparing a master plan for Washougal was a key recommendation from the RSWSS. The master plan will identify the infrastructure required for managing solid waste and recycling services over the next 20 years.

Background and Existing Conditions

Washougal began operations in 2009 and is operated by Columbia Resource Company (CRC). The facility is located on a 4.6-acre site in the Port of Washougal. Customers enter from Grant Street to a scale house complex that includes one inbound scale and one outbound scale. Each customer must be weighed, and fees are assessed based on total waste disposed. The facility includes an 80-by-60-foot transfer station building (4,800 sf) for customers to unload waste. Transfer trucks enter the east side through a depressed tunnel for loading trailers that are transported to the Wasco Landfill in The Dalles, Oregon. The station operates as a lift-and-load, meaning the bottom of the tunnel is only eight feet (ft) below the tipping floor. A front loader is used to lift waste about nine ft to load trailers. This operation does reduce the time to load trailers, but waste can spill off the sides and onto the tunnel floor, which requires regular cleaning.

The transfer station has three 22-foot-wide access doors located on the west side where collection trucks unload. This design allows for up to six (6) vehicles to unload at one time. The layout of the facility is shown in **Figure 1**.

Figure 1: Current Washougal Site Plan

The facility is open six days per week (Monday-Saturday) for commercial collection trucks from 7 a.m. to 5 p.m. The transfer station is open to the public and self-haul traffic on Wednesdays and Fridays from 7 a.m. to 5 p.m., and Saturday from 8 a.m. to 4 p.m. On these days commercial collection trucks can use a 22-foot roll-up door on the south side to unload. This allows self-haul customers to use the west side doors to unload on these days.

The facility also provides a drop-off center where customers can bring commingled and source-separated materials to be recycled. The drop-off center is open to the public Monday through Friday from 7 a.m. to 5 p.m. and Saturday from 8 a.m. to 4 p.m. Customers can drop off household hazardous waste (HHW) every third Saturday of the month from 8 a.m. to 4 p.m.

In Phase 1 RSWSS an assessment of the conditions of Washougal was conducted. Some minor repairs are required but primary structures and site appear in good condition.

Washougal Transfer Station Waste Quantities

Washougal received 38,638 tons in 2021 representing about 10% of the County's waste. **Tables 1 and 2** summarize solid waste tonnage and customer (vehicle) trips made annually to Washougal over the past six years. Total waste received increased by almost 20% over the past two years while the number of trips increased by nearly 32%. This has occurred even though the station is open to receive waste from self-haul customers only three days per week (Wednesday, Friday, and Saturday).

Table 1: Washougal Annual Solid Waste Tonnage by Customer Type

Solid Waste Tons	2016	2017	2018	2019	2020	2021	5-Year Ave. (2017-2021)	% Ave. of Total
Cash	3,318	4,263	4,446	5,177	6,700	6,598	**5,437**	**16%**
Commercial	220	421	397	836	335	442	**486**	**1%**
Route Trucks	14,539	14,914	15,090	15,104	16,776	18,579	**16,093**	**47%**
WCW Drop Box	13,295	13,816	11,987	11,209	12,756	13,019	**12,557**	**36%**
Total Tons	**31,372**	**33,414**	**31,919**	**32,326**	**36,566**	**38,638**	**34,573**	

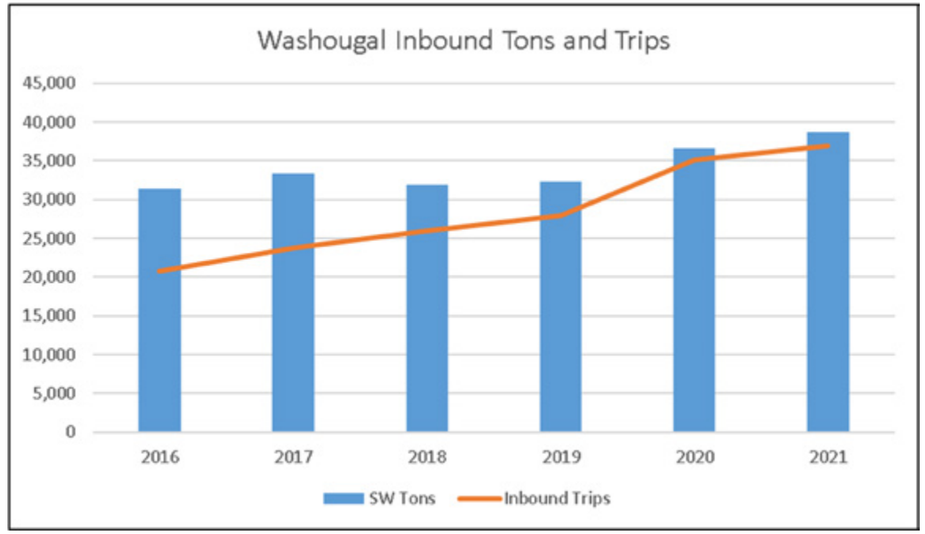
Table 2: Washougal Annual Customer (Vehicle) Trips

Inbound Trips	2016	2017	2018	2019	2020	2021	5-Year Ave. (2017-2021)	% Ave. of Total
Cash	14,923	17,542	19,678	21,703	28,411	29,669	**23,401**	**78%**
Commercial	328	416	364	512	291	582	**433**	**1%**
Route Trucks	1,701	1,769	1,976	1,931	2,163	2,305	**2,029**	**7%**
WCW Drop Box	3,841	4,049	3,938	3,855	4,202	4,333	**4,075**	**14%**
Total Trips	**20,793**	**23,776**	**25,956**	**28,001**	**35,067**	**36,889**	**29,938**	

Based on the 2021 data, Washougal receives on average about 125 tons per day (TPD) assuming a six-day week operation and 150 TPD if a five-day operational week is assumed. The five-day average should be considered as most of the waste is received during this period. Most customers on Saturday are self-haul vehicles that have small loads.

As shown in **Figure 2** both the trips and total tons received have increased steadily over the past three years.

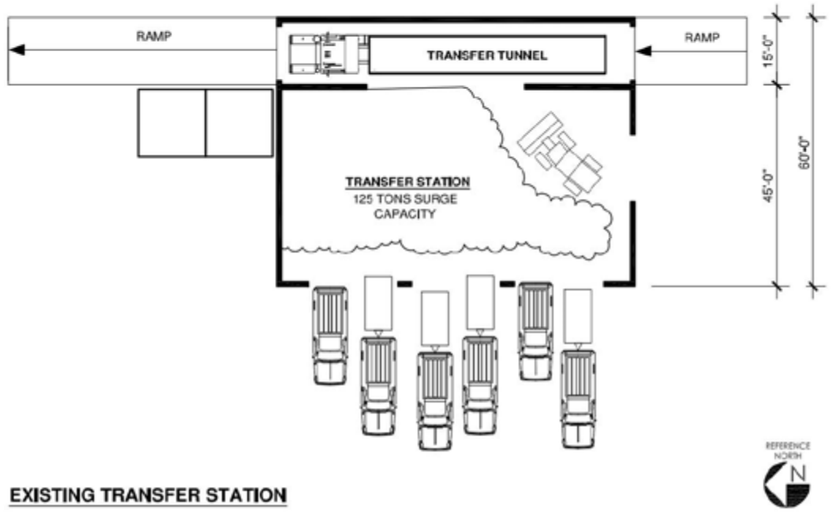
Figure 2: Washougal Inbound Tons and Trips 2016-2021



Existing Tip Floor Operation

The existing tip floor operation shown in **Figure 3** consists of an area that is approximately 40 ft x 60 ft or 2,400 sf. Accounting for the area to operate equipment to load transfer trailers leaves about 2,000 sf of surge capacity assuming no vehicles are unloading in the building. If the station receives 125 TPD the surge capacity requires about 1,700 sf to temporarily store waste. If the station receives 150 TPD the needed surge capacity increases to 2,000 sf based on the current waste volume received the facility is basically at full capacity.

Figure 3: Washougal Existing Tipping Floor



Likewise, there are only six stalls available to unload the self-haul customers on the west side of the station. Based on 2021 data, Washougal receives about 200 self-haul customers per day over the three days of operation. This level of traffic suggests that six stalls is generally adequate for unloading this number of customers without causing major onsite queue issues. However, there could be certain times of the year where there are longer wait times to unload. During this period, the commercial trucks primarily unload on the south side of the station. And, although the data suggest that a single stall is nominally adequate for unloading commercial collection trucks it is more desirable to have at least two and preferably three stalls during peak hours.

In the RSWSS Phase 1 Report (completed September 2020) it was noted that the Washougal will need to be expanded soon. However, the County is currently considering the option to expand the number of days Washougal is open to receive self-haul customers. It is expected to help relieve some of the traffic issues at Central Transfer and Recycling Center (CTR). This decision may also impact the timeframe for expanding the existing Washougal as the tip floor does not have capacity to handle more waste generated by growth or by decisions to expand the operating hours for self-haul customers.

Potential site improvements identified in the Phase 1 Report are discussed further in the Transfer Station Condition Assessment section of this document.

Waste Projections for Washougal

The population of the cities of Camas and Washougal is projected to increase from 43,104 (2020 Census) to 61,852, an increase of almost 19,000 people, by 2040. The amount of growth in the unincorporated areas in the eastern part of the County is more difficult to project. Based on assumptions made in the waste projections, it is estimated that 11,000 more people could live in the unincorporated portions of eastern Clark County. In total, 28,000 additional people are projected to be served by the Washougal Transfer Station.

Figure 4: Map of County with Annexation

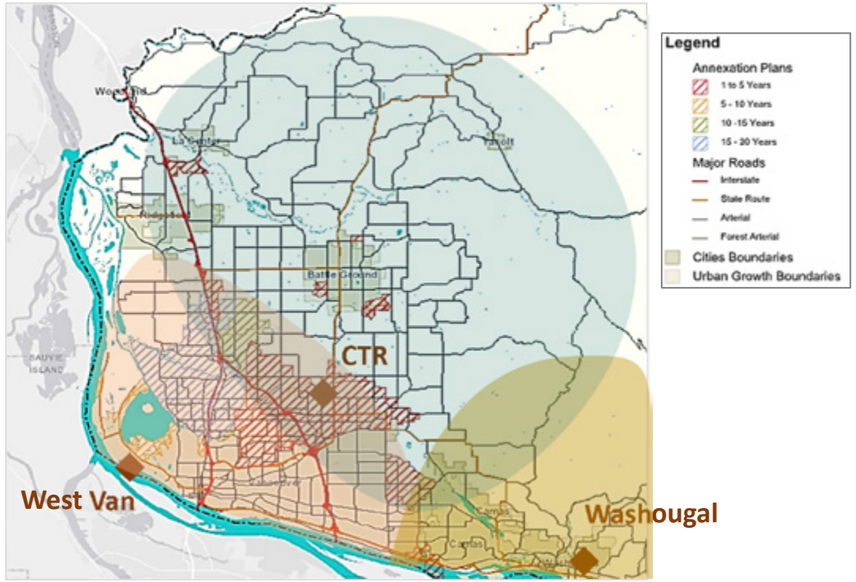


Table 3 below shows that the County will generate an additional 106,000 tons per year (TPY) by 2040. Under both assumptions, waste generated in the Washougal service area increases 21.2%.

Table 3: Estimated Service Area Waste Projections

Transfer Station Service Area	Assuming 50% UGB Growth in Central Area			Assuming 70% UGB Growth in Central Area		
	Population	% Change of Waste	Additional Waste (TPY)	Population	% Change of Waste	Additional Waste (TPY)
Service Areas						
Growth in City of Vancouver in North/Central County	40,961		41,780	57,706		58,860
Growth in Unincorporated North/Central County	49,227		50,212	49,227		50,212
Growth in North Cities	26,968		27,507	26,968		27,507
CTR Service Area:	**117,156**	**54%**	**88,734**	**133,901**	**62%**	**101,416**
Growth in City of Vancouver (25% of City & County)	20,840		21,257	20,480		20,890
Growth in unincorporated East County – Assume 20%	19,112		19,494	19,112		19,494
Growth in East Cities	18,748		19,123	18,748		19,123
Washougal Service Area:	**58,700**	**27%**	**44,459**	**58,340**	**27%**	**44,187**
West Van Service Area:	**40,961**	**19%**	**31,024**	**24,576**	**11%**	**18,614**
Total:	**216,817**	**100.0%**	**164,217**	**216,817**	**100%**	**164,217**

With this growth, the increase in waste will be about 23,000 TPY over the next 15 to 20 years. When added to the current waste volume of 32,000 TPY, the projected total waste is estimated to be about 55,000 TPY. This estimate suggests the amount of waste received at the Washougal will increase to about 1,060 tons per week. With only 7% delivered on Saturdays, the weekday volume could be between 970 to 1,000 tons. Although weekday volumes could average 200 TPD, if Wednesdays remain open to self-haul, the amount of waste received on that day could be as much as 250 tons.

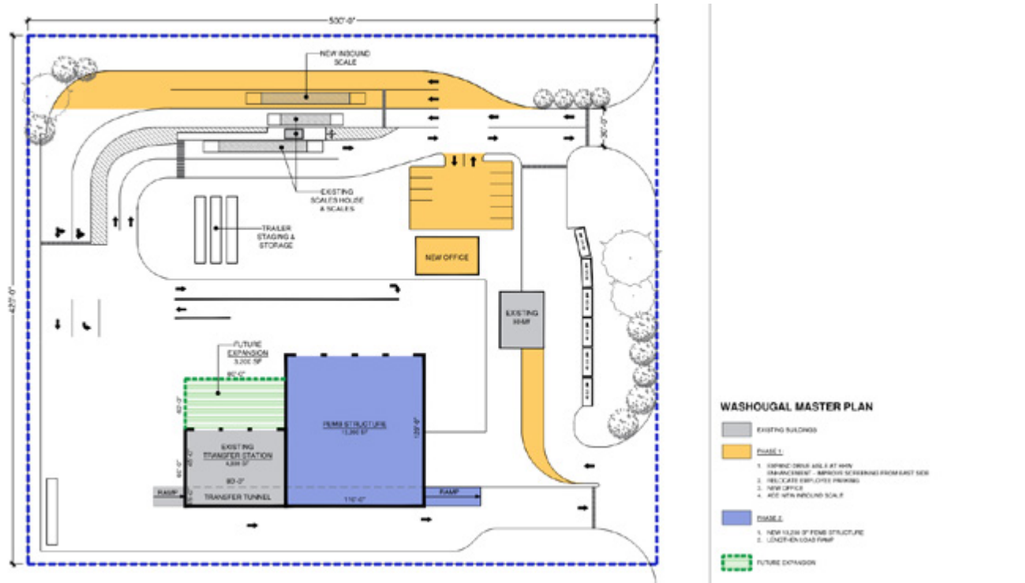
Transfer Station Conditions Assessment

Washougal is currently operating at its capacity but with no critical operating deficiencies. The County may consider opening the station for self-haul customers for additional days of the week. Assuming this would result mainly in distributing the current customers over a longer period, not increasing overall transactions, this may resolve any near-term need to add more stalls. This is similar to what occurred when the CRC opened the station to self-haul customers on Fridays in 2018.

The only other minor improvement to consider would be to add a push wall to stack waste along the trailer tunnel. This could provide additional stacking for waste prior to loading and reduce spillage when loading trailers.

To address the overall needs of the facility to meet the needs of the service area, there are several improvements that should be planned to provide more unloading stalls and to add tipping floor space. This site map in **Figure 5** on the next page shows seven improvements to be included in the Capital Improvements Plan for the Washougal.

Figure 5: Site Map Showing Improvements



1. A short-term improvement mentioned by the operator was to expand the access lane to the HHW facility. This is a minor investment to improve traffic flow and safety and could be completed in the near future.
2. Add screening on the east side of the HHW building to reduce exposure to the elements.
3. Add a steel backsplash and chute along the east side of the building in the load-out tunnel. This backsplash will protect the siding from damage caused from loading trailers. It should also reduce possible spillage of waste from the top-load operation. Also, consider adding a short push wall on the tip floor side to increase surge capacity.
4. Expand the transfer station building with a 10,000-sf addition and pave the yard to increase capacity including expanding below grade loading tunnel. The new building can include a lean-to on the north side to provide storage of special waste.
5. Expand the entrance road to increase the capacity of the scale complex and reduce potential of traffic backing onto Grant Street.
6. Build a new office and parking, free up space for trailer storage and other storage.
7. Consider future expansion at the existing transfer station's entrance.

The 2020 Phase 1 report expected growth in the service area to increase waste volumes at the facility by as much as 21% in the next 20 years, and that these improvements could be scheduled over the next

three to six years, however three years has passed since that report and these recommendations should be given greater priority.

Basis of Master Plan Data

Based on the findings from Phase 1 RSWSS and the recently passed HB 1799, the design data in the **Table 4 & 5** is recommended to be the basis of the West Van Master Plan. This basis of design considers that new census data and waste quantities received have resutled in new projections.

Table 4: Washougal - Basis of Master Plan Data

Category		Existing (2021)	2040 Projections	% Change
Waste Quantities (MSW)				
Annual	Tons	38,638	83,097	115%
Average	Tons/Day	125	290	132%
Peak	Tons/Day	150	350	133%
Customer Tons				
WCW				
All Commercial	Annual Tons	32,040	68,000	112%
	Ave Daily	120	193	
Self-Haul /Cash	Annual Tons	6,300	15,000	138%
	Weekly Tons (3 day)	121	288	138%
Trips				
All Commercial	Annual	7,220	15,000	108%
	Daily (5 day)	28	60	114%
Self-Haul/Cash	Annual	29,669	66,000	123%
	Ave Daily (3 day)	190	210 (6 day)	11%

Notes
#1 Source-Washington State – OMB

Table 5: Clark County Population Projections

Clark County Population Projections					
City or Area	2010 Census	2020 Census	% Increase	2040	2020 to 2040 % Increase
Battle Ground	17,571	20,743	18.05%	29,698	43.2%
Camas	19,355	26,065	34.67%	37,712	44.7%
La Center	2,800	3,424	22.29%	5,060	47.8%
Ridgefield	4,763	10,325	116.78%	16,716	61.9%
Vancouver	161,791	190,915	18.00%	272,837	42.9%
Washougal	14,095	17,039	20.89%	24,140	41.7%
Woodland (part)	0	84		119	42.0%
Yacolt	1,566	1,668	6.51%	2,344	40.5%
Incorporated Clark County:	**221,941**	**270,263**	**21.77%**	**388,625**	**43.8%**
% Incorporated:	52.2%	53.7%	2.91%	54.0%	0.5%
Unincorporated Clark County:	**203,422**	**233,048**	**14.56%**	**331,503**	**42.2%**
% Unincorporated:	47.8%	46.3%	-3.18%	46.0%	-0.6%
Clark County:	**425,363**	**503,311**	**18.33%**	**720,128**	**43.1%**

Source: Washington State - Office of Financial Management, Forecasting and Research Division

Source: Washington State - Office of Financial Management, Forecasting and Research Division

Appendix C: CIP Spreadsheet

BASELINE CIP - RECOMMENDED PHASE 1 PROJECTS
Transfer Station 20 Year Capital Improvements Program
THIS TABLE SHOULD BE USED FOR FINANCIAL PLANNING PURPOSES ONLY.
This is not a construction cost estimate.

3.5%

No.	Project	Description	2024 Cost Estimate	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
C1	Phase 1 and 1A Improvements																							
	Phase 1	Provide onsite transfer capacity. Access road on adjacent property. Includes new entrance to transfer station. New scale at the transfer station.	$5,000,000																					
	Phase 1A	Option to expand existing transfer station on west side of existing building. The 11,000 sf expansion would be on existing footprint.	$1,000,000			$650,000	$2,100,000																	
	Total CTS Improvements (2024$)		$6,000,000	$650,000	$2,750,000	$2,600,000	$2,100,000																	
	Annual Budget (Cost in Budget Year)			$650,000	$2,744,500	$2,742,445	$2,191,110	$2,191,110	$2,191,110	$2,191,110	$2,191,110	$2,191,110	$2,191,110	$2,191,110	$2,191,110	$2,191,110	$2,191,110	$2,191,110	$2,191,110	$2,191,110	$2,191,110	$2,191,110	$2,191,110	$2,191,110
	Annualized Budget		$6,313,110	$650,000	$3,394,500	$5,800,742	$8,291,110	$10,482,220	$12,673,330	$14,864,440	$17,055,550	$19,246,660	$21,437,770	$23,628,880	$25,819,990	$28,011,100	$30,202,210	$32,393,320	$34,584,430	$36,775,540	$38,966,650	$41,157,760	$43,348,870	$45,539,980
	Road Into Transfer Station Improvements																							
	Phase 1 Site Improvements		$1,482,210			$482,210	$1,000,000																	
	Phase 1 - Intersection Work	Install site accesses. Modifying access for top side	$1,000,000																					
	Phase 2B	Expansion for organics and rec area	$4,152,210																					
	Phase 1 - New Office Center	Includes office and new employee parking	$3,000,000																					
	Phase 1 - New Recycling Center	New entrance and bidirectional loop of power	$3,000,000																					
	Total Road Into Improvements (2024 $)		$11,634,420			$482,210	$1,000,000																	
	Annual Budget (Cost in Budget Year)			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Annualized Budget		$16,481,563	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Anchorage Improvements																							
	Transfer Station Improvements		$917,936	$639,000	$652,780	$666,560	$680,340	$694,120	$707,900	$721,680	$735,460	$749,240	$763,020	$776,800	$790,580	$804,360	$818,140	$831,920	$845,700	$859,480	$873,260	$887,040	$900,820	$914,600
	Site Improvements		$3,000,000		$2,000,000	$1,000,000																		
	Building Expansion		$4,153,000																					
	Total Anchorage Improvements (2024 $)		$8,070,936	$639,000	$2,652,780	$1,666,560	$680,340	$694,120	$707,900	$721,680	$735,460	$749,240	$763,020	$776,800	$790,580	$804,360	$818,140	$831,920	$845,700	$859,480	$873,260	$887,040	$900,820	$914,600
	Annual Budget (Cost in Budget Year)			$639,000	$652,780	$666,560	$680,340	$694,120	$707,900	$721,680	$735,460	$749,240	$763,020	$776,800	$790,580	$804,360	$818,140	$831,920	$845,700	$859,480	$873,260	$887,040	$900,820	$914,600
	Annualized Budget		$4,153,000	$639,000	$1,291,780	$1,958,340	$2,638,680	$3,332,800	$4,040,700	$4,762,380	$5,497,840	$6,247,080	$7,010,100	$7,786,900	$8,577,480	$9,381,840	$10,199,980	$11,031,900	$11,877,600	$12,737,080	$13,610,340	$14,497,380	$15,398,200	$16,312,800
	Total Improvements (2024 $)		$36,300,000	$1,289,000	$5,402,780	$4,266,560	$2,780,340	$694,120	$707,900	$721,680	$735,460	$749,240	$763,020	$776,800	$790,580	$804,360	$818,140	$831,920	$845,700	$859,480	$873,260	$887,040	$900,820	$914,600
	CIP - Revenue Requirements in Budget Year			$1,289,000	$5,396,500	$4,276,000	$2,891,208	$2,245,573	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Total Annualized Budget		$36,296,291	$1,289,000	$6,276,000	$9,176,808	$13,746,651	$16,814,863	$21,695,638	$23,949,342	$26,383,268	$30,295,291	$30,295,291	$30,295,291	$30,295,291	$30,295,291	$30,295,291	$30,295,291	$30,295,291	$30,295,291	$30,295,291	$30,295,291	$30,295,291	$30,295,291

Phase 2 - Facilities Plan - Key Assumptions (2023)

CIP - Phase 1

1. Consultant site investigation and design in 2024.
2. Phase 1 and 2 should proceed to permitting and design in 2025.
3. Consultant Construction of Phase 1A in 2027 if County decides not to expand CTS onto adjacent parcel.
4. Assumes County decides to site and build satellite Transfer Station and decisions CTS to commercial only.
5. If by 2026 County does not have transfer station phase 1A would not be constructed.

Work Plan: 1. Work Plan start date has been set at 2025 due to staff capacity concerns however every attempt to begin work in 2024 should be made.
2. Phase 1 and 2 should proceed to permitting and design in 2025.
3. If by end of 2026 the MRF is to remain for extended period (3-5 years), then design and construction should proceed with Option 2A or 2B.
4. If a new recycling facility is to be built, then the new entrance and MRF building to change negative and increase load storage, however if the decision is to build only 2A, the budget can remain as is.
5. All CIP improvements to be in place by 2030.

Implementation: 1. Planning and design of the phased improvements should proceed in 2023.
2. Phase 1A should not be effected until the end of the study.
3. If the final plan is revised to relocate existing office the budget is expected to be reduced by almost $900,000.

Appendix D: Drawings

Figure 1: West Van Site Plan

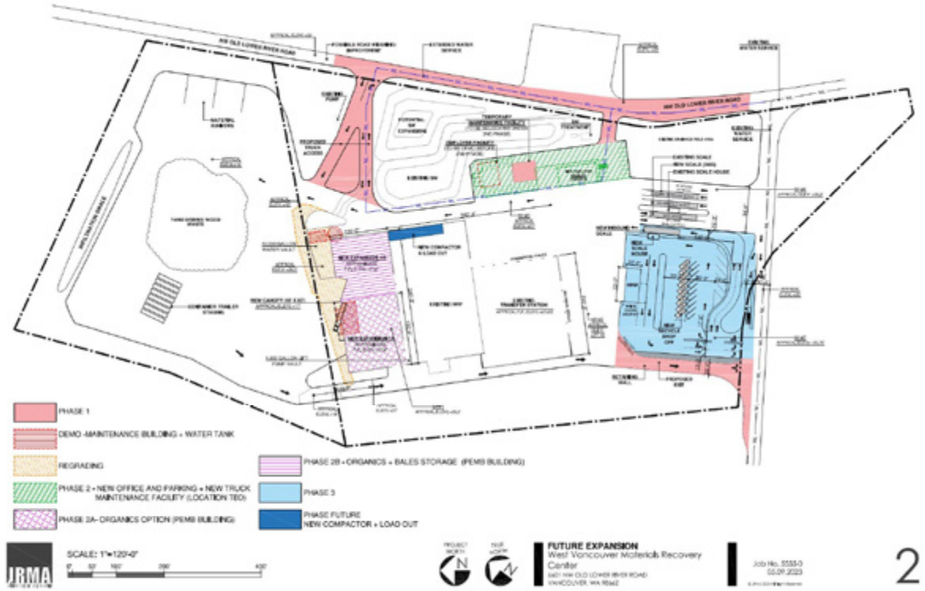


Figure 2: CTR Improvement Option

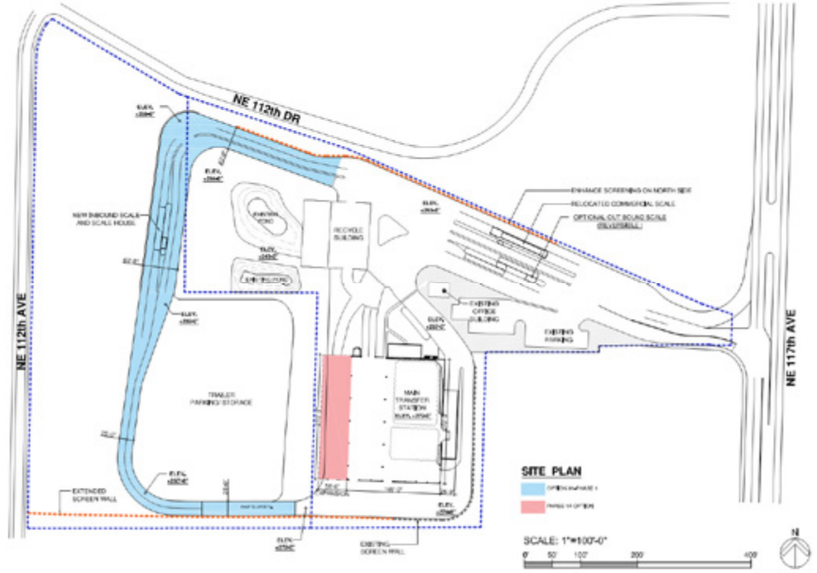


Figure 3: Option 1 – CTR Improvements

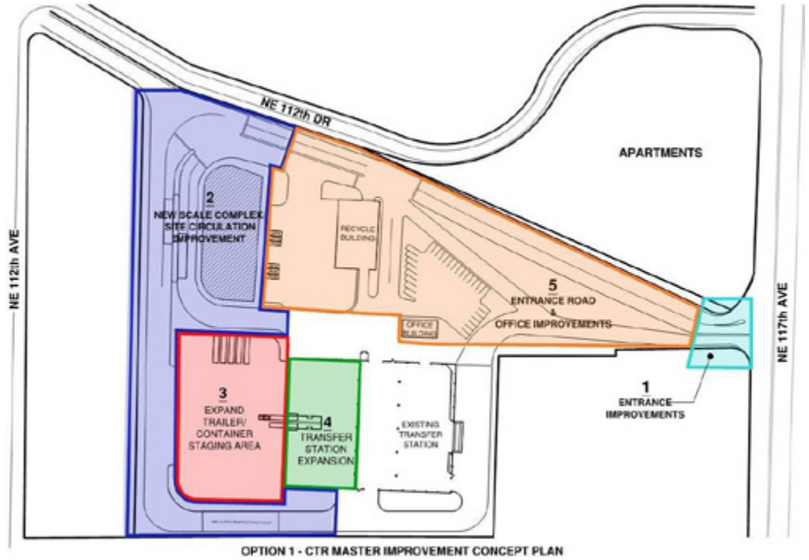


Figure 4: Option 2 – CTR Satellite Station

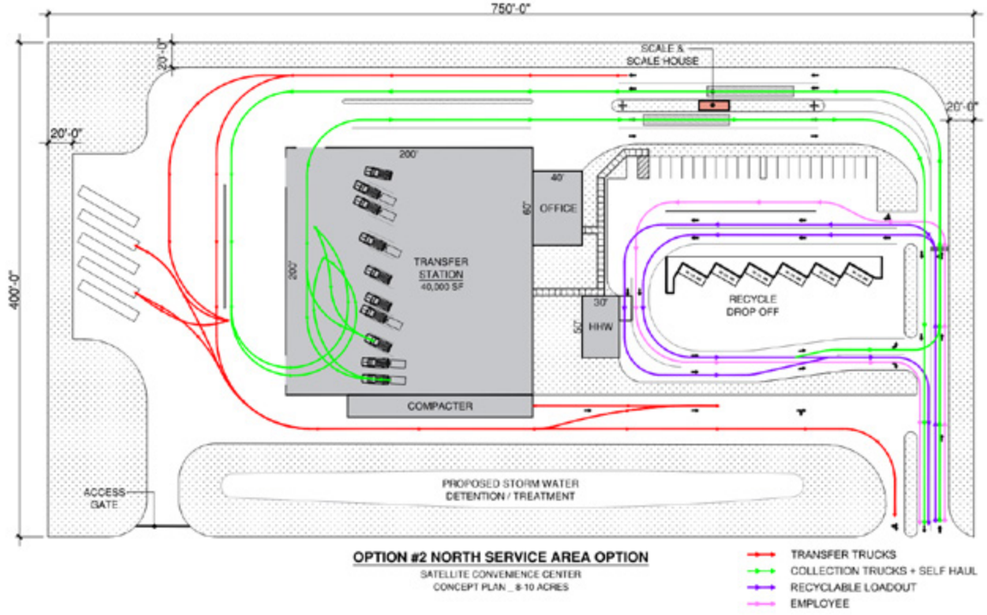


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Figure 5: Option 3 – New CTR Transfer Station

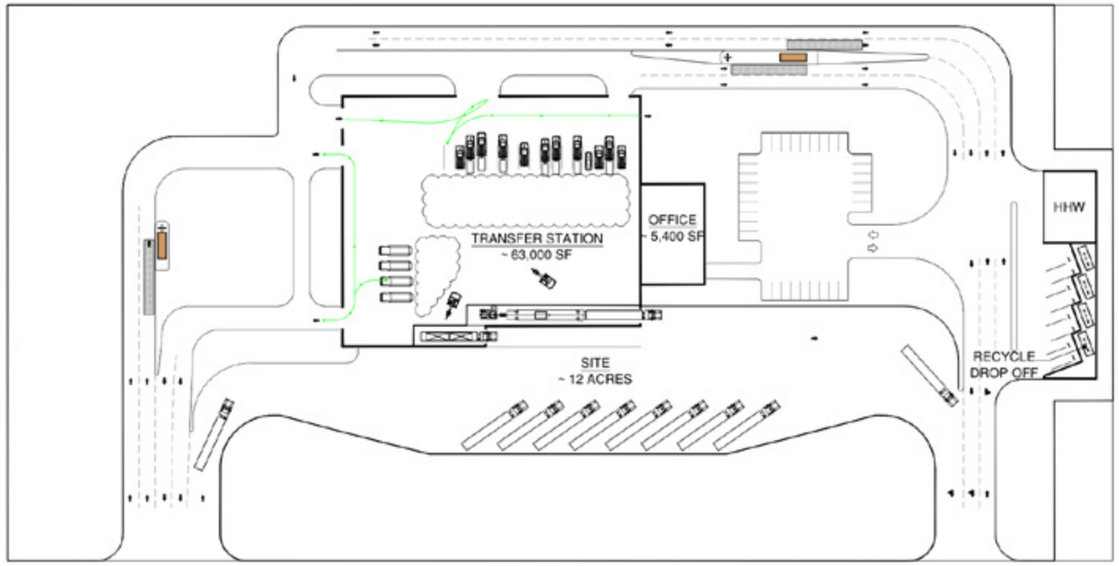

Figure 6: CTR Concept MRF Site Plan

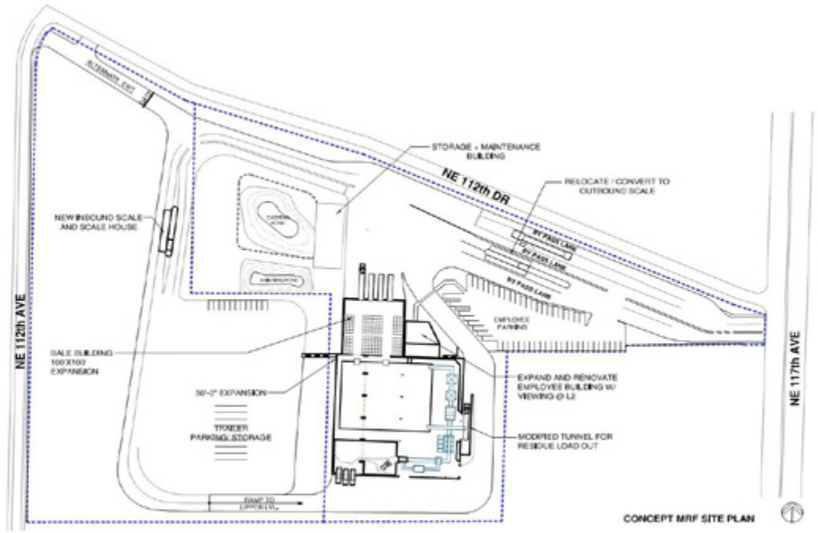

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Figure 7: Convert CTR to MRF - Floor Plan

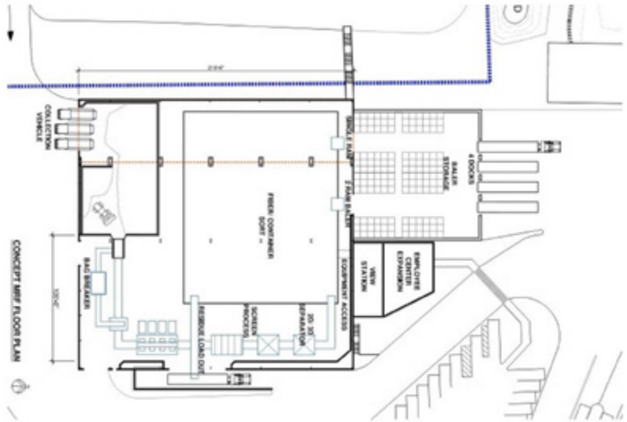
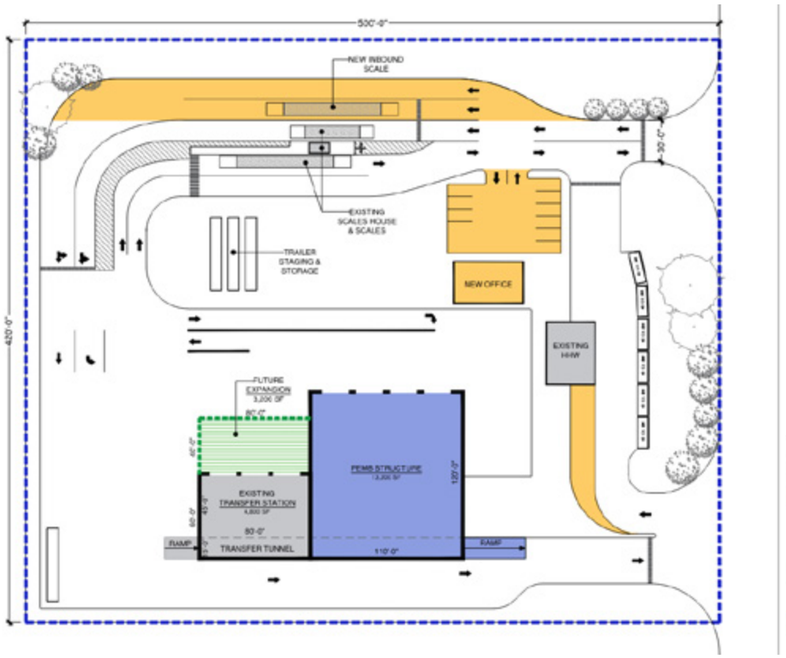


Figure 8:Washougal Site Map Showing Improvements



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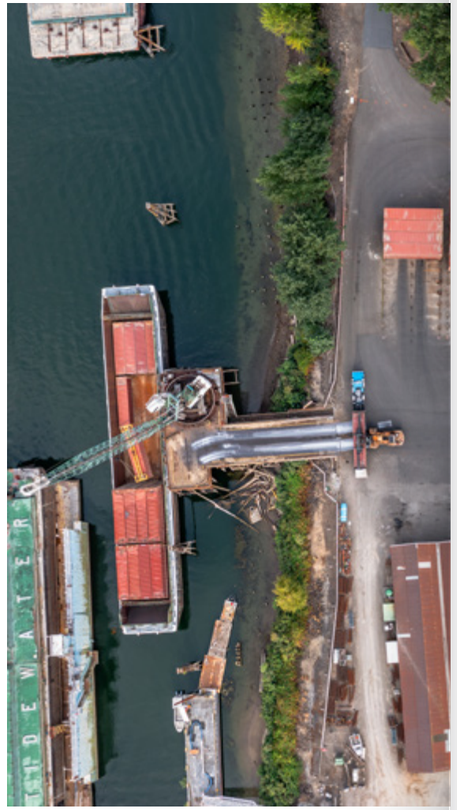
APPENDIX J:
Equity plan

PUBLIC HEALTH



SOLID WASTE AND RECYCLING

Equity Assessment and Action Plan

Clark County Solid Waste and Recycling

Vision

A future where less waste is generated.

Mission

To provide equitable services and infrastructure, that equip everyone to sustainably manage waste.

Values

Community: We collaborate with community members and partners to educate, inspire, and foster accessible use of the solid waste system.

Environment: We recognize the natural environment is our life support system. Protecting it is critical to our health and resiliency.

Equity: We respect all people and serve with transparency to provide unbiased and fair services.

Quality: We build efficient and effective programs and services using the best available science and research.

Introduction

The purpose of this plan is to provide a current assessment of equity in the Clark County solid waste system and set goals to improve conditions. This plan will identify needed actions that ensure the solid waste system is providing services and opportunities for all.

There are various internal and external elements that must be considered to evaluate equity conditions in the solid waste system. Internal elements are processes happening within Clark County Solid Waste and Recycling that impact the system. External elements are observable results of Clark County Solid Waste and Recycling work, such as the public experience, solid waste infrastructure, and environmental impacts.

Internal considerations assessed in this plan:

- Capital projects, contracts, and procurement
- Education and outreach planning
- Employee development and training
- Governmental advisory groups
- Policies and ordinances
- Rate structures

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External considerations assessed in this plan:

- Community partners
- Costs for services
- Customers
- Education opportunities
- Environment
- Public advisory committee
- Costs
- Services and infrastructure

Internal considerations

Capital projects, contracts, and procurement

Methodical and consistent practices are used to ensure fair, responsible, and cost-effective spending of public funds. Purchasing standards give all qualified vendors equal opportunity and comply with regulations for ethical practices in public contracting.[19]

Clark County Solid Waste and Recycling manages various contracts to serve the public. See Exhibit A for a list of active contracts.

Education and outreach planning

A major function of the Clark County regional solid waste system is to provide education and coordinate outreach efforts to the residents, businesses, and schools in Clark County. This work aims to give residents and businesses the knowledge and tools to manage waste in ways that protect the environment and public health.

Clark County Solid Waste and Recycling has four education and outreach programs, including the Composter Recycler training program, Green Business certification and education program, Green Neighbors residential education program, and Green Schools program. Clark County Solid Waste and Recycling also requires the county's recycling contractor, Waste Connections of Washington, to employ recycling educators to conduct their own outreach and education to customers.

Education planning includes:

- Staff attendance at community events
- Engaging community organizations

- Strategic planning of workshops and classes
- Developing strategies to engage underserved audiences
- Data-based decision making
- Maintenance of online and printed resources
- Collaboration with Waste Connections educators
- Collaboration with the City of Vancouver

Employee development and training

Clark County Public Health provides staff with resources for learning and professional development. Employees and managers work together to set quarterly and annual goals for development and learning. The goal is to have a competent and culturally aware workforce, and for staff to develop Public Health core competency skills, including:[16]

- Data analytics and assessment
- Policy development and program planning
- Communication
- Health equity
- Community partnerships
- Public health science
- Management and finance
- Leadership and systems thinking

All Clark County staff take mandatory trainings on topics including ethics, microaggressions, and workplace violence prevention. In addition, Solid Waste and Recycling staff receive a minimum of one equity training annually, conducted by a professional consultant.

Governmental advisory groups

Solid Waste and Recycling is advised by two interlocal advisory committees. The Regional Solid Waste System Steering Committee is made up of the Public Works directors of each city within the county, advising on solid waste issues and plans. The Leichner Landfill Oversight Committee advises on the management and maintenance of the closed Leichner Landfill in Vancouver. The committee consists of the county Public Health director, the county Solid Waste and Recycling project manager(s), county legal counsel, the county financial analyst, the City of Vancouver Public Works director, City of Vancouver legal counsel, and a designated representative of Clark County Public Health.

Policies and ordinances

Work is directed by federal, state, and local laws and regulations. These are defined in the Revised Code of Washington (RCW), the Washington Administrative Code (WAC), and the United States Code.[14, 18, 22] Regulations direct the priority projects for the county. Local ordinances are passed by the Clark County Council into the Clark County Code.[9] There are various ordinances related to solid waste, recycling, and environmental protection.

Rate structures

Clark County Solid Waste and Recycling staff review and approve rates charged by the private contractors, Waste Connections and Columbia Resource Company, for transportation, processing, and disposal of solid waste, recycling, and yard debris.

Rates for curbside services are set in the county's collection contracts with Waste Connections (See Exhibit A). Rates are adjusted annually using inflation indices produced by the United States Bureau of Labor Statistics. Clark County reviews and approves all changes to rates.

Solid waste (garbage) disposal rates are set through the county's contract with Columbia Resource Company (See Exhibit A). The cost to dispose of garbage is known as a tipping fee. The fee is adjusted annually using the previous year's consumer price index produced by the United States Bureau of Labor Statistics. Clark County reviews and approves all rate adjustments. In addition to the tipping fee, solid waste delivered to the transfer stations is subject to a $10.00 transaction fee.

External considerations

Community partners

Clark County Solid Waste and Recycling partners with local organizations and agencies to provide educational opportunities and events that strengthen connections with community members. Partners include:

- Clark County Clean Water[8]
- Fort Vancouver Regional Libraries[11]
- Lower Columbia Nature Network[15]
- Washington State University, Clark County Extension[23]
  - SNAP-Ed
  - Master Gardeners
- Vancouver Farmers Market[17]
- Watershed Alliance of Southwest Washington[25]

Costs for services

Residential and commercial customers in Clark County pay rates for solid waste services. There are no assistance programs for low-income customers. Waste Connections is responsible for the billing of customers. Waste Connections policy states that bills unpaid for 90 days result in cessation of pick-up services, following several notifications to the customer.

Customers

The demographics of Clark County residents are shown in Figures 1–3. This is an accurate representation of customers subscribed to curbside solid waste services. The demographics of customers self-hauling waste to the transfer stations is unknown, so it is unknown if the facilities are being used equally by everyone.

Figure 1: Graphic displaying the race by ethnicity (Hispanic or Latino) in Clark County and Washington State.[5]

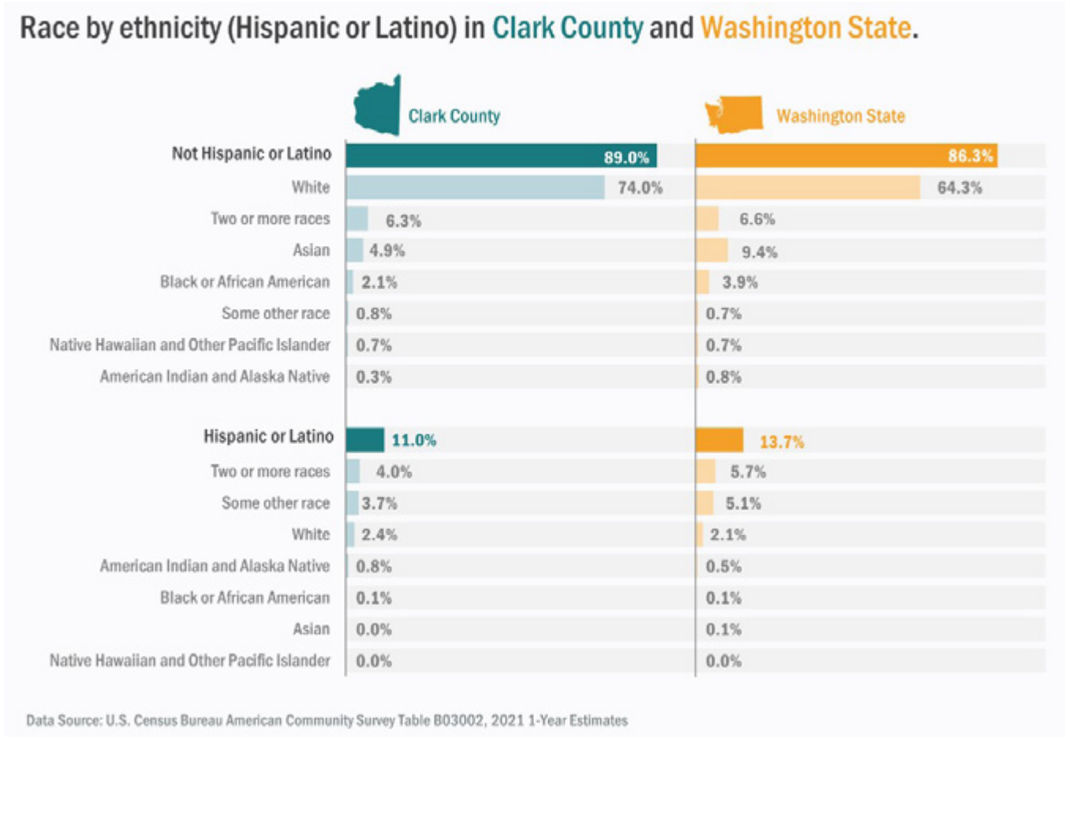


Figure 2: Graphic displaying the languages spoken in Clark County.[5]

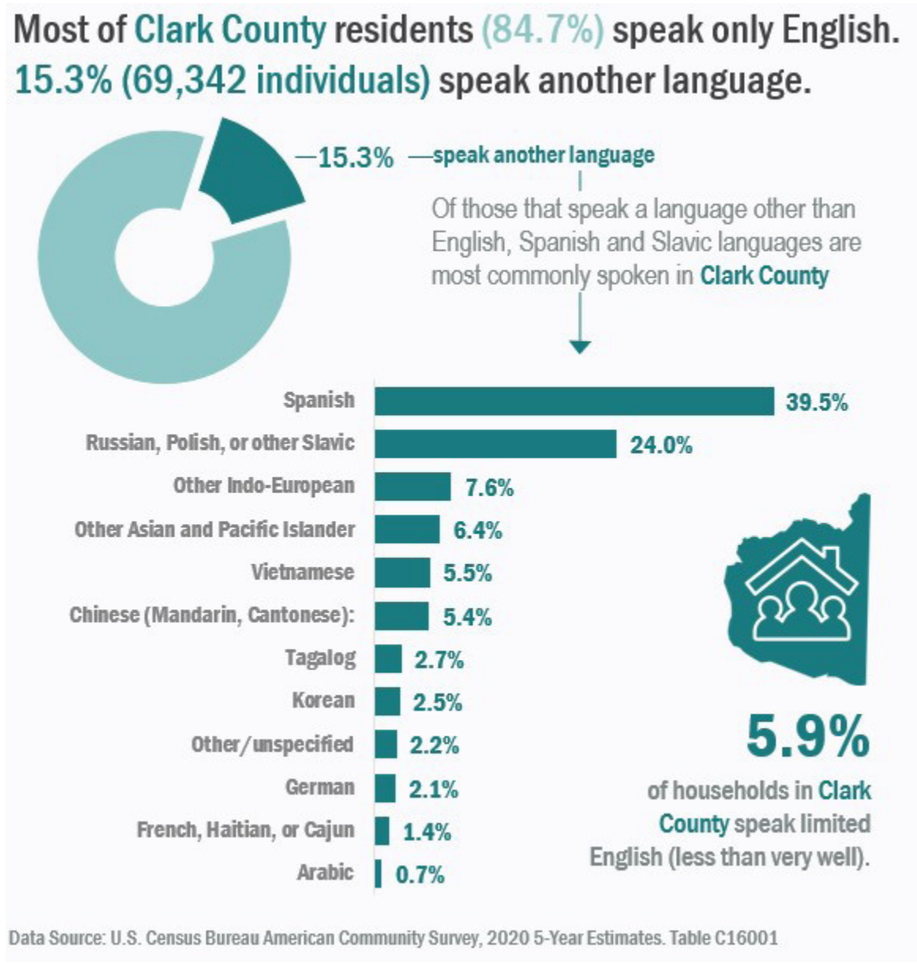
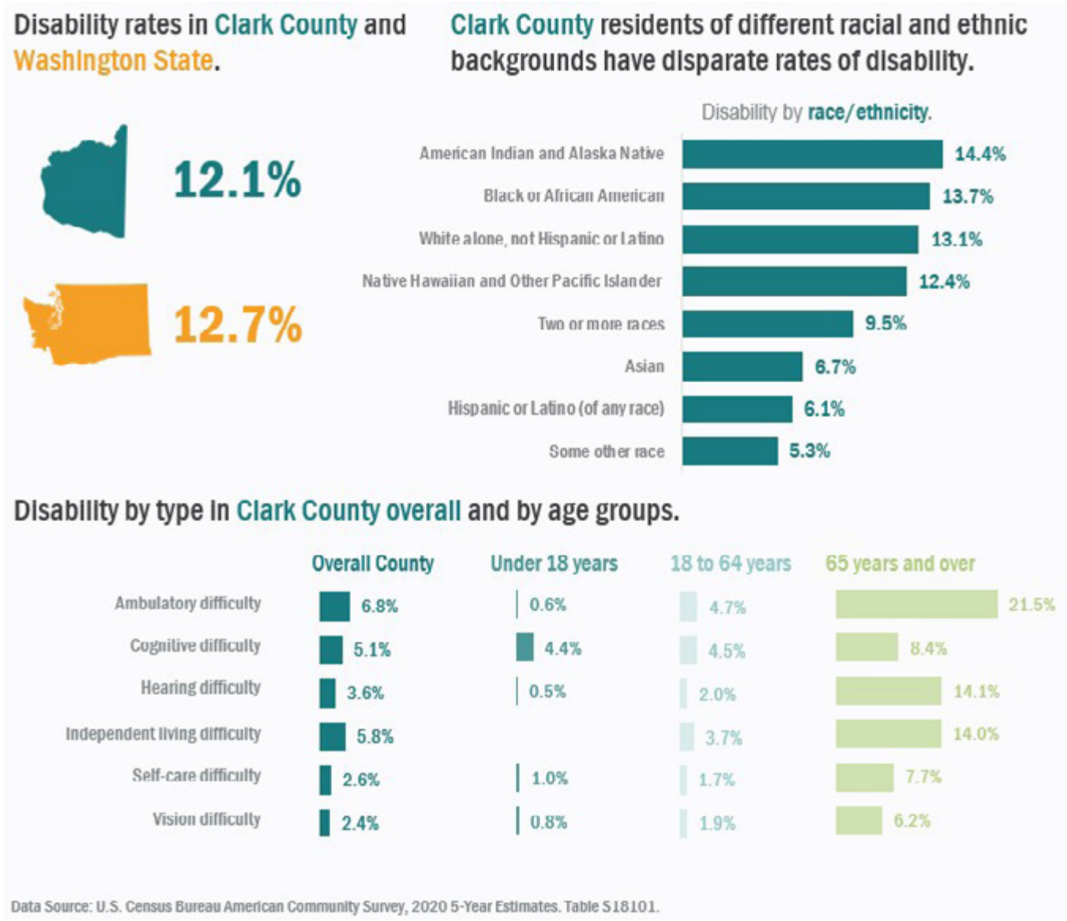


Figure 3: Graphic displaying the disability rates and types of disability by age and racial and ethnic backgrounds in Clark County and Washington State.[5]



Data Source: U.S. Census Bureau American Community Survey, 2020 5-Year Estimates. Table S18101.

Education opportunities

The public engages with solid waste outreach programming through various opportunities, including:

- Free online and in-person classes
- Free resources such as backyard compost bins, worm bins, and green cleaning kits
- Interacting with staff present at community events
- Interacting with Clark County Green Schools staff during staff visits to schools
- Access to a wide variety of online resources and tools[1,2,3,4,6]
- Access to printed resources during in-person interactions

The community has access to a variety of online and printed resources to learn topics of waste reduction, reuse, recycling, and disposal in Clark County. Some resources are available in multiple languages, though currently, not all resources are translated. See Table 1. All translations are completed through a professional contractor. All materials printed by Clark County include contact information for accessing the Americans with Disabilities Act telecommunication relay service.[13]

Table 1: A table of primary printed and online educational resources and the language(s) the resource is available in as of 2024. Languages identified are the top languages used by Clark County residents.[5]

Educational Resource	English	Spanish	Russian	Vietna-mese	Chinese	Tagalog	Korean
All solid waste content on clark.wa.gov	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recycling A-Z online directory	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RecycleRight mobile application	Yes	Yes	Yes	Yes	Yes	No	Yes
Green programs websites	Yes	In progress	In progress	In progress	In progress	In progress	In progress
Comprehensive Solid Waste Management Plan	Yes	No	No	No	No	No	No
Annual recycling guides mailed to customers	Yes	Partial	Partial	Partial	Partial	No	Partial
Recycling Done Right Guide	Yes	Yes	Yes	Yes	No	No	No

Environment

Water: 95% of clean water used in Clark County is sourced from groundwater.

Wildlife: Clark County is home to several endangered or threatened species that are protected from industrial zoning such as siting new solid waste facilities. Species include northern spotted owl, bull trout,

steelhead trout, coho salmon, chinook salmon, chum salmon, Bradshaw's desert-parsley, water howellia, North American wolverine, and the Brush Prairie pocket gopher.[7]

Pollution: See the ***Clark County Moderate Risk Waste Plan*** for information about pollution and pollution prevention in the county.

Public advisory committee

RCW 70A.205.110 requires an advisory committee to provide informed advice to the county regarding waste management issues and planning.[20] The Solid Waste Advisory Commission is made up of various representatives from the community, appointed by Clark County Council. Members represent various public interests including agriculture, county at-large, business, City of Vancouver, north county, public interest groups, small cities and towns, solid waste industry, southeast county, and southwest county. Meetings are recorded for compliance with the Washington State Open Public Meetings Act.[21]

Costs

Customers subscribed to curbside waste services pay various rates to Waste Connections, the contracted hauler for residential properties in Clark County. Waste Connections services include curbside pick-up of garbage, recycling, yard debris, and bulky items. Costs for curbside services vary depending on waste type, location within the county, and household type (single-family unit or multifamily unit). Costs for waste drop-off at the transfer stations varies by waste type and may be subject to an additional $10 transaction fee. Current rates can be viewed on the Waste Connections of Washington website.[24]

Services and infrastructure

There are three solid waste transfer stations in Clark County, and each has a household hazardous waste facility onsite with separate hours of operations. **Table 2** lists the locations and hours of operations of each facility.

Customers in Clark County can manage their waste and recycling by:

1. Subscribing to collection services at their location
2. Self-hauling to the transfer stations
3. Self-hauling to annual recycling events organized by their city
4. Self-hauling to the household hazardous waste facilities (residents only)
5. Self-hauling to annual household hazardous waste events organized by the county (residents only)
6. Self-hauling to retail or other service locations participating in recycling programs
7. Mailing items using available state product stewardship programs or paid mail-in kits

Table 2: A table listing name, location, and public hours of operation of each transfer station in Clark County, and hours of operation of the onsite household hazardous waste facilities.

Central Transfer and Recycling Center (CTR)	West Vancouver Materials Recovery Center (West Van)	Washougal Transfer Station (WTS)
11034 NE 117th Ave. Vancouver, WA 98662	6601 NW Old Lower River Rd. Vancouver, WA 98660	4020 S Grant St. Washougal, WA 98671
Monday–Friday, 6am–6pm Saturday and Sunday, 8am–4pm	Monday–Friday, 6am–6pm Saturday, 8am–4pm	Wednesday and Friday, 7am–5pm Saturday, 8am–4pm
Household hazardous waste hours: Friday, Saturday, and Sunday, 8am–4pm	Household hazardous waste hours: Friday and Saturday, 8am–4pm	Household hazardous waste hours: First and third Saturday of the month, 8am–4pm

Materials to self-haul to the transfer stations at no cost:

- Electronics accepted in E-Cycle Washington program: televisions, computers, laptops, monitors, tablets, e-readers, and portable DVD players
- Household hazardous waste (residents only): adhesives, aerosols, antifreeze, batteries, fertilizers, cleaners, e-cigarettes, fuel, medical sharps, mercury-containing items, motor oil, paints, pesticides, solvents, and others
- Lights accepted in LightRecycle Washington program: compact fluorescent lights, fluorescent tubes, and high intensity discharge lamps
- Plastic bags/film
- Scrap metal
- Shredded paper
- Standard recyclables: paper, cardboard, plastic bottles/jugs/tubs, metal cans, glass bottles/jars, etc.

Materials to self-haul to transfer stations for a rate and $10 transaction fee:

- Asbestos
- Freon-containing items: air conditioners, refrigerators, and freezers
- Garbage
- Large appliances
- Paper to be shredded onsite
- Tires
- Wood
- Yard debris

Standard curbside collections at single family and multifamily properties (for a fee):

- Mixed recycling
- Garbage
- Glass recycling

Recycling add-ons only at single family properties (no added fee):

- Antifreeze
- Batteries (no lead acid or lithium ion)
- Motor oil

Curbside yard and food waste (for a fee):

- Organics service (yard debris plus food waste) is available in city limits of Vancouver and Ridgefield
- Yard debris service is available county-wide

Bulky item pick-up (fees vary by item and location):

- Customers in unincorporated Clark County must pay a fee plus transportation cost for each bulky item pick-up
- Customers in City of Vancouver city limits have free bulky item pick-up options

Clean-up events (no fee):

- Clark County coordinates three annual events in northern Clark County for residents to drop off household hazardous waste. Household hazardous waste includes aerosols, antifreeze, batteries, chemical fertilizers, cleaners, fire extinguishers, fuel, and more.
- The City of Ridgefield coordinates an annual clean-up event for city residents to drop off non-hazardous items including bulky waste, scrap metal, yard debris, cardboard, electronics, and tires.
- The City of Vancouver coordinates multiple neighborhood clean-up events within city limits for residents to drop off non-hazardous items including bulky waste, yard debris, and scrap metal.
- The Town of Yacolt coordinates an annual clean-up event for town residents to drop off non-hazardous items including bulky waste.

Recommendations

1. Collect and use data

	Recommendations	0-1 year	1-3 years	3-5+ years	Goals
1.1	Gather and analyze voluntary demographic data from registrants of Solid Waste programs, classes, and workshops.	X	X	X	Improve demographic data collection to better inform our outreach practices to reach more diverse communities.
1.2	Gather and analyze voluntary demographic data of customers self-hauling to the transfer stations and household hazardous waste facilities.		X	X	Improve demographic data collection to better inform our solid waste services to reach more diverse communities.

2. Diversify community engagement

	Recommendations	0-1 year	1-3 years	3-5+ years	Goals
2.1	Partner with local organizations to provide solid waste services to more diverse communities.		X	X	Improve the quality of solid waste services by partnering with at least five local organizations to reach more diverse communities.

3. Improve language accessibility

	Recommendations	0-1 year	1-3 years	3-5+ years	Goals
3.1	Provide outreach materials and resources in multiple languages.	X	X	X	Translate all outreach materials and resources into the three most common languages other than English.
3.2	Offer classes and workshops at community rooms and centers in multiple languages.	X	X		Increase the number of classes and workshops at community rooms and centers offered in multiple languages.
3.3	Create culturally relevant outreach materials.		X	X	Improve the quality of outreach materials and resources by using culturally relevant language and content.
3.4	Add signage in multiple languages at the transfer stations.			X	Improve accessibility by adding at least the three most common languages to signage at the transfer stations.
3.5	Use Government Alliance on Race and Equity (GARE) resources to ensure use of inclusive and common language.[12]	X	X	X	Improve our diversity, equity, and inclusion knowledge and practices by using GARE resources.

4. Increase accessibility to solid waste services

	Recommendations	0-1 year	1-3 years	3-5+ years	Goals
4.1	Provide vouchers or discounts to unincorporated county customers for bulky item pick-up or bulky item self-haul.			X	Increase the number of vouchers or discounts offered to unincorporated county customers for bulky item pick-up or bulky item self-haul.
4.2	Provide more satellite recycling drop-off locations for batteries prior to statewide battery stewardship law implementation to occur in 2027.	X	X		Increase the number and geographic diversity of satellite drop-off locations for batteries.
4.3	Expand hours of operation of the household hazardous waste facilities to accommodate residents with non-traditional work schedules.			X	Increase the number of hours of operation of the household hazardous waste facilities at transfer facilities.
4.4	Increase the number of sites in the We Compost program.	X	X	X	Increase the number and geographic diversity of We Compost sites to reach more community members.

EXHIBIT A: Solid Waste Contracts

Active contracts as of 2024, excluding interlocal agreements, with summaries of equity and/or environmental considerations built into each project.

Contract or capital project	Summary of work	Status	Equity and environmental considerations built into project
CCPH Advanced Chemical Transport Household Hazardous Waste (HHW) Collection HDC.2040	Contract for the collection and disposal of HHW at annual collection events	Active contract Expires 2026	Increase rural access to safe HHW disposal. Pollution prevention practices. HHW recycling outlets prioritized over disposal/incineration.
CCPH City of San Francisco SWEO Interlocal HDC.1626	Interlocal agreement providing county access to online Zero Waste Signmaker tool	Active contract Expires 2025	Free public access to customized recycling posters to improve waste practices. Allows disposal signage to be standardized, accessible, and understandable.
CCPH Columbia Land Trust Backyard Cert HDC.1503	Assistance, resources, and recognition to private property owners for maintaining their yard/ gardens to benefit the environment	Active contract Expires 2025	Program goals to reduce chemical use in yards/gardens to protect wildlife, native vegetation, and stormwater.
CCPH Columbia Resource Company Solid Waste Recycling Transfer Transport HDC.964	Operations of the transfer stations and HHW facilities	Active contract Expires 2027	Compliance with all environmental permits and regulations. Litter prevention and clean-up. Hazardous waste management.
CCPH Columbian Advertising SWEO HDC.1750	Advertising space in The Columbian newspaper	Active contract Expires 2025	Environmental education reaching audiences that read print media.
CCPH ED Productions LLC SWEO Videographer HDC.1631	Event videography services to highlight various educational projects.	Active contract Expires 2024	Environmental education for audiences that watch video media.
CCPH Formations Web Design and Maintenance HDC.1449	Design and maintenance of educational websites	Active contract Expires 2024	Accessible website design. Use of software for website translations, monitored for accuracy.
CCPH JR Miller RSS Presentation Support HDC.2134	Regional solid waste systems study presentations.	Active contract Expires 2024	n/a
CCPH Maul Foster Solid Waste Management Plan Formatting HDC.2115	Design and formatting of the Comprehensive Solid Waste Management Plan	Active contract Expires 2025	Improve accessibility and readability of the plan through thoughtful document editing and design.
CCPH Parametrix Contract Negotiator HDC.1567	Contract negotiation service for the CCPH Columbia Resource Company Solid Waste Recycling Transfer Transport HDC.964 contract	Active contract Expires 2024	Independent facilitation ensures ethical contracting between public and private entities, to provide the best benefit to the public.
CCPH Parametrix Triennial Inspections HDC.2126	Engineering and architectural inspections of the transfer stations	Active contract Expires 2026	Inspection of environmental protection systems including stormwater infrastructure, litter barriers, etc.
CCPH PSU CES Residue Study Interlocal HDC.2091	Contractor to conduct waste audits of recycling residual material and report findings	Active contract Expires 2026	Identification of residual materials informs operations and education to best benefit the recycling process and environment.
CCPH SCS Engineers Leichner Landfill HDS.2119	Engineering services and environmental monitoring at the closed landfill in Clark County	Active contract Expires 2028	Environmental maintenance and monitoring of the closed landfill to protect the environment and reduce impact and nuisance to surrounding properties.
CCPH VanCougar SWEO Advertising HDC.2258	Agreement for advertising space in the VanCougar news magazine.	Active contract Expires 2024	Environmental education for audiences that read print media.
CCPH Washington Green Schools dba EarthGen HDC.973	Terms for waste audits, technical assistance, outreach, awards, and website for schools participating in Clark County Green Schools program	Active contract Expires 2024	Waste reduction in schools. Recognition for participating schools. Training for teachers. Accurate data collection through conducting waste audits.
CCPH Waste Connections Recyclables Collection HDC.855	Recycling collection service for residential properties in unincorporated Clark County, La Center, Ridgefield, and Yacolt	Active contract Expires 2028	Accessible customer service requirements. Environmental benefits of every other week collections. Diverse types of recyclable materials accepted. Elderly assistance program. Education requirements.
CCPH Waste Connections Yard Debris HDC.858	Yard debris collection for residential properties in unincorporated Clark County, Battle Ground, La Center, Ridgefield, and Yacolt	Active contract Expires 2025	Environmental benefits of diverting yard debris from landfill. Accessible customer service requirements.

Contract or capital project	Summary of work	Status	Equity and environmental considerations built into project
CCPH Waste Control, Inc. Subcontract HDC.856	Subcontract for residential recyclables collection along the Clark County and Cowlitz County border	Active contract Expires 2028	Compliance with the primary contract: CCPH Waste Connections Recyclables Collection HDC.855.
CCPH WSU Master Gardener HDC.2168	Agreement to support the master gardener program, which promotes practices that reduce or eliminate need for garden chemicals	Active contract Expires 2024	Education to reduce use of harmful chemicals in households to protect public health and the environment. Community partnership allows for more diverse outreach.
CCPH Will Hornyak Storyteller HDC.1543	Presentations and workshops teaching students about recycling, waste reduction, and composting	Active contract Expires 2024	Environmental education for K-12 students. Partnership allows for more diverse outreach.

EXHIBIT B: 2023 Solid Waste Survey Results

Clark County Solid Waste and Recycling conducted a widespread survey about solid waste services in 2023. The purpose of the survey was to gain insight into how county residents manage various wastes, what is important to residents, and how residents interact with the solid waste system. The survey was primarily available to take online, and printed copies were passed out at in-person events. It was taken by 1,665 community members and this Exhibit details the results and findings from the survey.

Key insights

Survey responses provided a wide lens to how residents engage with the solid waste system, what is important to the community, and where there are opportunities to improve services and education.

What residents value most regarding waste management:

- At-home waste and recycling services are available and easy
- Convenient drop-off locations and events for wastes not collected at home
- Environmental protection
- Reducing waste going to the landfill

Notable findings for waste management behavior:

- 78% of residents dispose of food waste in the garbage
- 20% of residents dispose of hazardous waste in the garbage, and 11% stockpile it at home

Customer service insights:

- Most residents will use online resources and/or contact Waste Connections for waste management information
- Based on written comments, there is need to inform residents of their curbside recycling options, such as the no-cost option to upgrade to a larger recycling cart

Survey response summary

Percentages of survey respondents using identified disposal methods for garbage:

Curbside or multifamily enclosure	Self-haul bulky or extra items to the transfer station	Self-haul all garbage to the transfer station	Respondent does not have garbage
99%	23%	2%	0.4%

Percentages of survey respondents using identified disposal methods for food waste:

Dispose as garbage	Compost at home	Curbside organics service	Respondent does not have food waste	Drop off at community compost location
78%	20%	13%	3%	0.5%

Percentages of survey respondents using identified disposal methods for yard waste:

Curbside organics or yard debris service	Compost at home	Respondent does not have yard waste	Burning at home	Drop off at transfer station or other drop off site	Dispose as garbage
68%	19%	10%	8%	7%	6%

Percentages of survey respondents using identified disposal methods for household hazardous waste:

Drop off at a household hazardous waste facility	Dispose as garbage	Respondent does not have hazardous waste	Stockpile at home
59%	20%	17%	11%

The list below is the average ranking of the services and infrastructure that are most important to survey respondents, listed in order from most important to least important overall.

1. Having waste and recycling services at home
2. Drop-off events for wastes and recyclables not accepted curbside
3. Access to convenient drop-off locations
4. Having a transfer station that is convenient for me
5. Having waste information available in my language
6. Having better options for waste management at multifamily complexes

The list below is the average ranking of the ideas and values that are most important to survey respondents, listed in order from most important to least important overall.

1. Waste management at home is easy
2. Protect the environment

3. Keep waste out of the landfill
4. Litter and pollution are not present in the neighborhood
5. People and pets in the household stay healthy
6. People in need have financial assistance to dispose their waste
7. Kids learn about reducing waste, composting, and recycling
8. I am informed about how to use local services
9. I can teach others about reducing waste, recycling, composting, etc.

How residents find solid waste information if they have questions or concerns:

Search online	Contact Waste Connections	Ask friends	Don't know how to get information	Contact Clark County	Contact their city	Ask in person
65%	60%	18%	6%	6%	3%	1%

Summary of written comments:

- Residents ask questions in-person at the transfer stations
- Requests for curbside organics service in unincorporated county
- Comments and questions indicating need for increasing awareness about the drop-off services available at the transfer stations
- Requests about at-home services including cart sizes and service frequency
- Concerns about recycling contamination
- Concerns about inequitable waste reduction education
- Mixed positive and negative feedback for Waste Connections customer service
- Concerns about disadvantages that affect ability to self-haul bulky items for disposal
- Concerns about waste services for the disabled and elderly
- Concerns about pollution from Waste Connections collection vehicles and waste facilities
- Comments indicating inaccuracies on the Recycling A-Z directory
- Concerns about vectors in garbage and organics carts
- Requests for more recycling options for electronics, clamshell plastics, textiles, shredding, and block foam
- Concerns about how disposal and recycling rates are determined

Demographics of survey respondents (provided voluntarily)

Home location

Unincorporated Clark County	City limits of a city operating an independent recycling contract	City limits of a city serviced under the county recycling contract
49%	35%	15%

Gender

Female	Male	Prefer not to answer	Prefer to self-describe	Non-Binary
70%	19.5%	9%	1%	0.5%

Race and ethnicity (respondents were able to select multiple)

White	Prefer not to answer	Hispanic or Latino	Asian or Asian American	American Indian or Alaska Native	Black or African American
80.9%	13.2%	3.5%	2.1%	1.5%	0.9%

Annual household income

Over $125,001	$75,000 to $125,000	$50,001 to $75,000	$25,001 to $50,000	Under $25,000
37%	34%	16%	9%	4%

Language

- 99% of respondents use English as their primary speaking and reading language

Ages of members of the household

- 45% of respondent households have children aged 0-18
- 55% of respondent households do not have children aged 0-18

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K

APPENDIX K:
Remedial action sites

Remedial action sites

Remedial Action Sites in Clark County as noted by the Washington Department of Ecology's Toxics Cleanup Program as needing investigation or undergoing hazardous waste cleanup activity. Pulled from ***Ecology's All Cleanup Sites in Washington State*** March 2024.

Cleanup site name	FS ID	Site Cleanup status	Rank	City
4512 Kauffman Ave HOT	53943	Awaiting Cleanup		VANCOUVER
5 CORNERS GAS & GROCERY 211542	44936243	Cleanup Started		VANCOUVER
726 NE 5th Ave Camas	9620	Awaiting Cleanup		CAMAS
7-Eleven Store 24279	43476655	Cleanup Started		VANCOUVER
A & B RADIATOR	22283	Awaiting Cleanup	2 - Moderate-High Risk	VANCOUVER
A & B RADIATOR LUST	22283	Cleanup Started		VANCOUVER
Abandon Tank Site	52841299	Cleanup Started		VANCOUVER
ACGH JOINT VENTURES	9954245	Cleanup Started		VANCOUVER
Allen Residential Property	62681	Awaiting Cleanup		WASHOUGAL
AMERICAN RV STORAGE	90752948	Awaiting Cleanup	3 - Moderate Risk	VANCOUVER
B & B FOOD MART	84611568	Cleanup Started		VANCOUVER
Baldassano Residential Property	61559	Awaiting Cleanup		LA CENTER
Barker Residential HOT	86421	Cleanup Started		VANCOUVER
Battle Ground Chevron	23782	Cleanup Started		BATTLE GROUND
Battle Ground Farm & Home	32749129	Cleanup Started		BATTLE GROUND
Battle Ground Mini Mart 805	9977600	Cleanup Started		BATTLE GROUND
Battle Ground School District 119	81695495	Cleanup Started		BATTLE GROUND
BNSF Rail MP 130	99997172	Awaiting Cleanup		UNSPECIFIED
BNSF Railway Company Vancouver	1048	Cleanup Started	1 - Highest Assessed Risk	VANCOUVER
Bollin Property	86335	Cleanup Started		VANCOUVER
BPA Alcoa Substation	1057	Awaiting Cleanup		VANCOUVER
Brazier Forest Industries	33837982	Cleanup Started		VANCOUVER
BRODIE PROPERTY	14787	Awaiting Cleanup		BRUSH PRAIRIE
Broken Skull Range	73853	Awaiting Cleanup		YACOLT
Burlington Environmental LLC Washougal	1018	Cleanup Started	1 - Highest Assessed Risk	WASHOUGAL
BUSY MART	36344431	Cleanup Started		BATTLE GROUND
CALHOUN PROPERTY	6928703	Awaiting Cleanup		VANCOUVER
Camas Port of Washougal	54565663	Cleanup Started		WASHOUGAL
Cameron HOT	30443	Awaiting Cleanup		VANCOUVER
CARIBOU REALTY GROUP	34583642	Cleanup Started	2 - Moderate-High Risk	VANCOUVER
CFM Site	73713224	Cleanup Started		BATTLE GROUND
Chelatchie Prairie General Store	33415834	Cleanup Started		AMBOY
Chelatchie Tank Farm	30204	Awaiting Cleanup	4 - Low-Moderate Risk	AMBOY
Chevron Bulk Plant 61001854	1060	Cleanup Started	1 - Highest Assessed Risk	VANCOUVER
Christensen Family Properties	94656347	Cleanup Started		VANCOUVER
Clark Co Maintenance Facility	88286851	Cleanup Started		VANCOUVER
Clark Co PUD	25333536	Cleanup Started		VANCOUVER
Clark County Public Works 119th St	36151	Cleanup Started		VANCOUVER
Collins Property	995845	Awaiting Cleanup		VANCOUVER
Columbia Adventist Academy CSWGP	17263	Awaiting Cleanup		BATTLE GROUND
Columbia Machines	45241242	Cleanup Started		VANCOUVER
Columbia Rock Concrete Products Inc	5016308	Awaiting Cleanup	2 - Moderate-High Risk	CAMAS
Commercial Radiator Service	98665473	Cleanup Started	4 - Low-Moderate Risk	VANCOUVER
Conway Property	8341	Awaiting Cleanup		RIDGEFIELD
COPELAND GROCERY	68829522	Cleanup Started		WOODLAND
COV Bella Vista Circle	9415	Awaiting Cleanup		VANCOUVER
Creative Smiles PLLC	12962	Awaiting Cleanup	2 - Moderate-High Risk	VANCOUVER
CRITES PROPERTY	9189718	Awaiting Cleanup		VANCOUVER
Custom Care Cleaners	1049	Cleanup Started	5 - Lowest Assessed Risk	VANCOUVER
DaMaari Terrace Subdivision	4685998	Awaiting Cleanup		VANCOUVER
DEGAGNE PROPERTY	3511806	Awaiting Cleanup		VANCOUVER
Dioxin Release at Mill St & N Railroad Ave	99997906	Awaiting Cleanup		UNSPECIFIED
Domino's Pizza	6110	Cleanup Started		VANCOUVER
DRAPER'S CITY CLEANER	82713854	Cleanup Started		BATTLE GROUND
DUNMIRE PROPERTY	8110344	Awaiting Cleanup		VANCOUVER
East County Auto	94778244	Awaiting Cleanup		WASHOUGAL
Electro Tech Metal Finishing LLP	74748387	Cleanup Started	2 - Moderate-High Risk	VANCOUVER
Emerald Petroleum Services Inc Transfer	47231541	Cleanup Started		VANCOUVER
Estate of Mary E MacKay	1619881	Awaiting Cleanup		VANCOUVER
Evergreen Tire Center	71190	Cleanup Started		VANCOUVER
Evergreen Transportation Center	41729854	Cleanup Started		VANCOUVER
Excel Designs Inc	19464	Awaiting Cleanup		VANCOUVER
Exterior Wood Inc	33568379	Cleanup Started		WASHOUGAL
Exxon Bill Needer	95191884	Cleanup Started		WASHOUGAL
Fargher Lake Grocery	1045	Cleanup Started	3 - Moderate Risk	YACOLT
Fischer Property Nursery	2816247	Awaiting Cleanup		BATTLE GROUND
Fleischer Property	20708	Cleanup Started		VANCOUVER
Flowserve Corp	12775317	Awaiting Cleanup		VANCOUVER

Cleanup site name	FS ID	Site Cleanup status	Rank	City
Foulks Residential HOT	68955	Awaiting Cleanup		RIDGEFIELD
Fourth Plain Chevron	34692169	Cleanup Started		VANCOUVER
Fourth Plain Portland Shopping Center LLC	39916	Awaiting Cleanup		VANCOUVER
Franz Bakery Warehouse	47124354	Cleanup Started		VANCOUVER
Fred Meyer Fuel #140	21578	Cleanup Started		VANCOUVER
Fred Meyer Inc Hazell Dell	29822132	Cleanup Started	3 - Moderate Risk	HAZEL DELL
Freund Residential HOT	30590	Awaiting Cleanup		VANCOUVER
Frito Lay Vancouver	81587474	Cleanup Started		VANCOUVER
Fruit Valley Industrial Holding LLC	61235	Cleanup Started		VANCOUVER
Gary Brown Photography	65134218	Awaiting Cleanup	2 - Moderate-High Risk	VANCOUVER
Gary Gilbert DDS	20814	Awaiting Cleanup	2 - Moderate-High Risk	VANCOUVER
GDGE Land & Development LLC Stockpile	63371	Awaiting Cleanup		VANCOUVER
GEM EQUIPMENT	75145467	Cleanup Started		VANCOUVER
General Chemical Corp Vancouver Works	1011	Awaiting Cleanup	5 - Lowest Assessed Risk	VANCOUVER
Gent Drum Site	21628	Awaiting Cleanup		YACOLT
Georgia-Pacific Camas Business Center	78452582	Cleanup Started		CAMAS
Georgia-Pacific Consumer Products	66765272	Cleanup Started		CAMAS
Graces Cleaners	86416754	Cleanup Started		BATTLE GROUND
Great Western Malting	41573682	Cleanup Started		VANCOUVER
GRESETH PROPERTY	5458	Cleanup Started		CAMAS
Grozav Property	5782	Awaiting Cleanup		VANCOUVER
Hannah Motor Company	12126843	Cleanup Started		VANCOUVER
HANSEN DRILLING CO INC	77926534	Cleanup Started		VANCOUVER
Hazel Dell Auto Care Center	66578798	Cleanup Started		VANCOUVER
Hazel Dell McDonalds	14633	Awaiting Cleanup		VANCOUVER
HEISSON STORE	34852941	Cleanup Started		HEISSON
HIGGINS RESIDENTIAL PROPERTY	7847284	Awaiting Cleanup		YACOLT
HI-WAY FUEL	22538744	Cleanup Started		WASHOUGAL
HOCKINSON MARKET	14357917	Cleanup Started		BRUSH PRAIRIE
HUNTINGTON PROPERTY	7402565	Awaiting Cleanup		VANCOUVER
I-5 SB MP17	42691	Awaiting Cleanup		UNKNOWN
IPC Plywood Mill	1031	Awaiting Cleanup	5 - Lowest Assessed Risk	AMBOY
IPC Solid Waste Site	1032	Awaiting Cleanup	2 - Moderate-High Risk	AMBOY
JIMMY W EVANS	51675496	Cleanup Started		RIDGEFIELD
Johnson Property Auto Dismantling	3952832	Awaiting Cleanup		RIDGEFIELD
JUMBOS CAR WASH & GAS	96316853	Cleanup Started		VANCOUVER

Cleanup site name	FS ID	Site Cleanup status	Rank	City
KOCH TRACTOR	1061	Awaiting Cleanup	3 - Moderate Risk	RIDGEFIELD
Koppe Metals South Property	4754445	Awaiting Cleanup	2 - Moderate-High Risk	VANCOUVER
Lacamas Lake Lodge	24194	Cleanup Started		CAMAS
Lahti Property	23197	Awaiting Cleanup		VANCOUVER
LAKE MERWIN CAMPERS HIDEAWAY	84722352	Cleanup Started		AMBOY
LAKE STORE JAMES E PIDGEON	86115375	Cleanup Started		CAMAS
LARSONS DRY CLEANER	75243248	Cleanup Started	2 - Moderate-High Risk	VANCOUVER
Lincoln Cleaners NE Parkway Dr	78633645	Cleanup Started		VANCOUVER
Linde LLC	13992714	Cleanup Started		VANCOUVER
Lock Property	1488108	Awaiting Cleanup		RIDGEFIELD
MACIEL PROPERTY	2682336	Awaiting Cleanup		VANCOUVER
Main St Auto Care	75854	Awaiting Cleanup		VANCOUVER
Malcolm Montague	12436367	Cleanup Started	2 - Moderate-High Risk	VANCOUVER
Manor Highway Auto Sales	3780556	Awaiting Cleanup		VANCOUVER
Martin Residential HOT	46137	Cleanup Started		VANCOUVER
MATZEN PROPERTY	938507	Awaiting Cleanup		VANCOUVER
McKee Logging	94946182	Cleanup Started		RIDGEFIELD
Miltons Dry Cleaners	19779	Cleanup Started	2 - Moderate-High Risk	VANCOUVER
Moore Wrecking Yard	46073	Awaiting Cleanup		YACOLT
Mountain View Business Park Petroleum	21388	Cleanup Started		RIDGEFIELD
Neumiller Property	84710	Awaiting Cleanup		BRUSH PRAIRIE
NORTHWEST INVESTMENTS	20915	Cleanup Started	2 - Moderate-High Risk	VANCOUVER
Ott Property	6514915	Awaiting Cleanup		VANCOUVER
OVIATT PROPERTY	6590264	Awaiting Cleanup		RIDGEFIELD
PACIFIC COGENERATION INC	1066	Awaiting Cleanup		VANCOUVER
Pacific Wood Treating Corp	1019	Cleanup Started	1 - Highest Assessed Risk	RIDGEFIELD
Paradise Truck Stop	30753149	Cleanup Started		RIDGEFIELD
Park Laundry Site	8100630	Cleanup Started	3 - Moderate Risk	RIDGEFIELD
Pendleton Woolen Mills	1020	Cleanup Started		WASHOUGAL
Philpot	12088	Cleanup Started		CAMAS
Pinkertons Auto Repair	95817965	Cleanup Started		VANCOUVER
Plaid Pantry 112	9158935	Cleanup Started		VANCOUVER
Plaid Pantry 112 Solvent Release	9158935	Awaiting Cleanup		VANCOUVER
Port of Vancouver Rail Release	3120	Cleanup Started		VANCOUVER
Port Way ROW Pacific Coast Shredding	2297659	Awaiting Cleanup		VANCOUVER
PORTCO CORP PEDIGO PRODUCTS	30759	Cleanup Started	3 - Moderate Risk	VANCOUVER

Cleanup site name	FS ID	Site Cleanup status	Rank	City
PORTCO CORPORATION	98588242	Cleanup Started		VANCOUVER
POWELL DISTRIBUTING	89421657	Cleanup Started		VANCOUVER
PRECISION PAVING	8237457	Cleanup Started		VANCOUVER
PRI Northwest Inc Vancouver	24972725	Cleanup Started		VANCOUVER
PRO TECH IND INC	8793389	Cleanup Started		VANCOUVER
PUD Transformer 50th Ave Ridgefield	81242	Awaiting Cleanup		RIDGEFIELD
PUD Transformer at 621 SE 168th Ave	39592	Cleanup Started		VANCOUVER
PYLE PROPERTY	2062470	Awaiting Cleanup		VANCOUVER
Quick Shop Minit Mart 27	36184476	Cleanup Started		VANCOUVER
Reborn Auto Repair Inc	83777258	Cleanup Started		VANCOUVER
Ridgefield School District Bus Barn	16992216	Awaiting Cleanup		RIDGEFIELD
RIDLER PROPERTY	5286	Awaiting Cleanup		VANCOUVER
Riverside Residential HOT	58324	Cleanup Started		VANCOUVER
ROEGNER HEATING OIL TANK	2484731	Cleanup Started		VANCOUVER
Ronald Brown Property	95697798	Cleanup Started	5 - Lowest Assessed Risk	CAMAS
ROYAL SHINE CLEANERS	13618	Cleanup Started		VANCOUVER
RR ROW PORT OF VANC	7925	Awaiting Cleanup		VANCOUVER
Safeway Transformer Spill	16631	Awaiting Cleanup		VANCOUVER
SCHAFFER PROPERTY	1105153	Awaiting Cleanup	3 - Moderate Risk	RIDGEFIELD
Schmid Family LP Hwy 14 Property	14687	Cleanup Started		WASHOUGAL
Schopp & Moody Residential HOT	95909	Cleanup Started		VANCOUVER
SCHROEDER PROPERTY	5812	Awaiting Cleanup		VANCOUVER
Shanky Residential Property	16151	Awaiting Cleanup		VANCOUVER
SHULL PROPERTY	2893056	Awaiting Cleanup		VANCOUVER
Southbound I-5 MP 9	29398	Cleanup Started		RIDGEFIELD
Southwest Washington Hospitals SWMC	23823846	Cleanup Started		VANCOUVER
SPRAGUE & FJERMESTAD	9157494	Awaiting Cleanup	3 - Moderate Risk	RIDGEFIELD
SR 503 CONSTRUCTION	95339634	Cleanup Started		VANCOUVER
ST Services Nustar Energy LP	61862781	Cleanup Started	2 - Moderate-High Risk	VANCOUVER
STOREDAHL SITE	34523599	Awaiting Cleanup		BATTLE GROUND
Sun Dry Cleaners Vancouver	11197	Awaiting Cleanup	2 - Moderate-High Risk	VANCOUVER
SW corner of 18th Ave & 119th St ROW	39458	Awaiting Cleanup		VANCOUVER
THE COUNTRY STORE	59194613	Cleanup Started		VANCOUVER
TIDEWATER COVE CONDOMINIUMS	7570126	Cleanup Started		VANCOUVER
Time Oil Co 01-103	48214249	Cleanup Started		BRUSH PRAIRIE

Cleanup site name	FS ID	Site Cleanup status	Rank	City
Tomlinson Residential Property	17210	Awaiting Cleanup		VANCOUVER
TOSCO 1104430095	16865364	Cleanup Started		VANCOUVER
Tosco Corporation Site 257323-31299	11251483	Cleanup Started	3 - Moderate Risk	VANCOUVER
TrueGuard LLC	75455855	Cleanup Started		WASHOUGAL
U-Haul Center of Hazel Dell	82682784	Cleanup Started		VANCOUVER
ULTIMATE TRUCK SERVICE	5215934	Awaiting Cleanup		RIDGEFIELD
UNOCAL SERVICE STATION 6166	1076	Cleanup Started		VANCOUVER
US Army Camp Bonneville	69965472	Cleanup Started	1 - Highest Assessed Risk	VANCOUVER
US ARMY Camp Bonneville RAU-2	9420069	Cleanup Started	1 - Highest Assessed Risk	PROEBSTEL
US ARMY Camp Bonneville RAU-2C	475000	Cleanup Started	1 - Highest Assessed Risk	PROEBSTEL
Vacant Lots @ 4511 NW 18th Ave	49149	Awaiting Cleanup		CAMAS
Vancouver City Blandford Station 4	202	Cleanup Started	0 - NPL Site (Fed HRS Score)	VANCOUVER
Vancouver City Operations Center	47696337	Awaiting Cleanup		VANCOUVER
Vancouver Ice & Fuel Oil	1037	Cleanup Started		VANCOUVER
Vancouver King Street Substation	94380	Awaiting Cleanup		VANCOUVER
Vancouver Port of 058720-000	5922991	Awaiting Cleanup	5 - Lowest Assessed Risk	VANCOUVER
Vancouver Port of NuStar Cadet Swan	1026	Cleanup Started	1 - Highest Assessed Risk	VANCOUVER
Vancouver Port of Red Lion Hotel	15891	Cleanup Started		VANCOUVER
Vancouver Sign Co Inc	35998513	Cleanup Started		VANCOUVER
Vancouver Warehouse & Distribution Co	8828	Awaiting Cleanup		VANCOUVER
Varicast Inc	1034	Cleanup Started		VANCOUVER
VICKS SERV-U-WELL	4386384	Cleanup Started		RIDGEFIELD
VIEW MOORE MARKET	69538245	Cleanup Started		LA CENTER
Volkman Residential Property	4704	Awaiting Cleanup		CAMAS
WA DOC DNR Larch Mountain Corr	1024	Cleanup Started	2 - Moderate-High Risk	YACOLT
WA DOT Battle Ground	89645195	Cleanup Started		BATTLE GROUND
WA DOT Retention Pond	2621289	Awaiting Cleanup		VANCOUVER
WA DOT Ridgefield	92866148	Cleanup Started		RIDGEFIELD
WA DOT SHELL DENNIS MEADOWS	46933333	Cleanup Started	3 - Moderate Risk	VANCOUVER
WA DOT Vancouver	1050	Cleanup Started	5 - Lowest Assessed Risk	VANCOUVER

Cleanup site name	FS ID	Site Cleanup status	Rank	City
WA PARKS BATTLEGROUND STATE PARK	77432389	Awaiting Cleanup	2 - Moderate-High Risk	BATTLE GROUND
WA WSU Vancouver Res & Ext	57753233	Cleanup Started		VANCOUVER
WAL MART STORE 2947	14975986	Cleanup Started		VANCOUVER
Warman Farm Gas Tank	48001	Awaiting Cleanup		VANCOUVER
Wastequip Washington	46726523	Awaiting Cleanup		RIDGEFIELD
Wayside Gas	15491331	Cleanup Started		BATTLE GROUND
Wells Residence	3988393	Cleanup Started		RIDGEFIELD
Wertz and Weeks Properties	3612707	Awaiting Cleanup	2 - Moderate-High Risk	RIDGEFIELD
Western Station Corp	46254644	Cleanup Started		VANCOUVER
Whatley Pit Decant Facility	7838213	Cleanup Started		VANCOUVER
Wildlife League Property	4884	Cleanup Started		CAMAS
Willamette Dental Vancouver	22584	Awaiting Cleanup		VANCOUVER
William Schueter Living Trust	30538	Cleanup Started		VANCOUVER
WSDOT ROW	16424	Cleanup Started		BATTLE GROUND
WSDOT ROW I-5 NB at Hwy 501	57300	Cleanup Started		VANCOUVER
WSDOT SR 502	21936	Cleanup Started		BATTLE GROUND
Xiaoping Ding and Fuha Holly Guo Property	20551	Awaiting Cleanup		VANCOUVER
Z MART	98615159	Cleanup Started		RIDGEFIELD

L

APPENDIX L:
Designated recyclable list

All materials collected curbside on the below list are collected by the G-certified hauler in unincorporated areas of the county, and in cities that default to the G-certified hauler for their services. Materials that are collected curbside and included in the minimum service level ordinance are highlighted orange (yellow with orange hatching).

Designated recyclables list

Material Category	**Material**	**Collection Method** Curbside (C) Drop-off (DO) Bulky item request (B) Other - briefly describe	**Customers served** Single-family (SF) Multifamily (MF) Self-haul (SH)	**Required by minimum service ordinance** if applicable	**Notes** commingled, source separated, color of cart, program listing for specific materials etc.
Paper	Mixed paper	C, DO	SF, MF, SH	Locations vary	Commingled blue cart
Paper	Newspaper	C, DO	SF, MF, SH	Locations vary	Commingled blue cart
Paper	Cardboard	C, DO	SF, MF, SH	Locations vary	Commingled blue cart
Paper	Milk and juice cartons (no foil)	C, DO	SF, MF, SH	Locations vary	Commingled blue cart
Paper	Aseptic containers (milk, juice, soup)	C, DO	SF, MF, SH	Locations vary	Commingled blue cart
Paper	Poly-coat food boxes (dry and frozen)	Not collected	Not collected	Not collected	Not collected
Metal	Aluminum cans	C, DO	SF, MF, SH	Locations vary	Commingled blue cart
Metal	Steel and tin cans	C, DO	SF, MF, SH	Locations vary	Commingled blue cart
Metal	Scrap metal	C, DO	SF, MF, SH	Locations vary	Commingled blue cart
Metal	Aluminum foil	C, DO	SF, MF, SH	Locations vary	Commingled blue cart
Plastic	Plastic bottles, jugs and jars (#1 and #2)	C, DO	SF, MF, SH	Locations vary	Commingled blue cart
Plastic	Dairy tubs (#5)	C, DO	SF, MF, SH	Locations vary	Commingled blue cart
Plastic	Plastics (#3-7)	Not collected	Not collected	Not collected	Not collected
Glass	Glass bottles and jars	C, DO	SF, MF, SH	Locations vary	Dark green bin
Organics	Yard debris	C, DO	SF, MF, SH	No	Green yard debris or organics cart
Organics	Food waste	Locations vary for C	SF, MF	No	Green organics cart
Organics	Food-soiled paper	Not collected	Not collected	Not collected	Not collected
Organics	Compostable packaging and/or service ware	Not collected	Not collected	Not collected	Not collected
Organics	Food processing waste	Other	Commercial	No	Facility drop boxes
Organics	Fats oils and grease	Not collected	Not collected	Not collected	Not collected
Other Recyclables	Paint	DO, Other	SH	No	PaintCare program
Other Recyclables	Electronics	DO, Other	SH	No	E-cycle Washington
Other Recyclables	Light bulbs	DO, Other	SH	No	LightRecycle Washington
Other Recyclables	Textiles	DO, Other	SH	No	DO at retail locations
Other Recyclables	Used oil	C, DO	SH	No	Collected curbside outside the blue cart
Other Recyclables	Mattresses	DO, B	SF, SH	No	Can be requested for bulky item pickup
Other Recyclables	Tires	DO, B	SF, SH	No	Can be requested for bulky item pickup
Construction & Demolition	Wood waste (unpainted, untreated)	DO	SH	No	Drop boxes may be requested
Construction & Demolition	Concrete	DO	SH	No	Drop boxes may be requested
Construction & Demolition	Asphalt pavement	DO	SH	No	Drop boxes may be requested
Construction & Demolition	Plate glass	Not collected	Not collected	Not collected	Not collected

***UTC-Regulated Haulers**

G-101 Waste Control, Inc - servicing Woodland vicinity

G-253 Waste Connections of Washington - servicing remainder of Clark County

G-118 Basin Control, Inc - Inactive

Area and Jurisdiction	**Regulatory Authority**	**Service Provider**	**Mandatory Collection**	**Ordinances**
Battle Ground	WUTC	G-253	No	
Camas	City of Camas	G-253	Garbage and recycling	Refuse Collection and Disposal Chapter 13.80
La Center	WUTC	G-253	No	
Ridgefield	WUTC	G-253	Garbage and recycling	8.12.020 - Universal compulsory solid waste collection.
Vancouver	City contracted	G-253	Garbage and recycling	VMC/6.12.110
Washougal	City contracted	G-253	Garbage and recycling	Chapter 7.06
Yacolt	WUTC	G-253	No	
Unincorporated Clark County	WUTC	G-253	Subscription based, recycling mandated with subscription of weekly and EOW MSW	

M

APPENDIX M: Inventory of dangerous waste generators

Inventory of dangerous waste generators

The following inventory was generated from the Washington State Department of Ecology database, listing all small, medium, and large quantity generators of hazardous waste in Clark County. The data comes from the Hazardous Waste and Toxics Reduction Program's database, Turbo Waste. The database is populated with data provided by hazardous waste generators' annual reports to Ecology. State generator code designations (LQG/MQG/SQG/XQG) are based on Washington's dangerous waste rules (LQG= large quantity generator, MQG=medium quantity generator, SQG=small quantity generator, and XQG=nongenerator). Data was received from Ecology March 2024.

Handler ID	Handler name	Status	Street Address	City	State	Zip
WAH000047756	Albina Asphalt 1300 W 8th St	LQG	1300 W 8th St	Vancouver	WA	98660
WAR000006387	Analog Devices Inc	LQG	4200 NW Pacific Rim Blvd	Camas	WA	98607
WAH000035680	Church & Dwight Co Inc	LQG	6350 NE Campus Dr	Vancouver	WA	98661
WAH000057660	Composites One LLC Vancouver	LQG	12301 NE 56th St	Vancouver	WA	98682
WAD082631722	Exterior Wood Inc	LQG	2685 Index St	Washougal	WA	98671
WAD009042896	Georgia Pacific Consumer Operations LLC	LQG	401 NE Adams St	Camas	WA	98607
WAH000046258	Graphic Packaging International LLC	LQG	900 SE Tech Center Dr	Vancouver	WA	98683
WAH000049766	IND LLC	LQG	18110 SE 34th St Bldg 5	Vancouver	WA	98683
WAR000008565	Kemira Chemicals Inc Washougal Plant	LQG	1150 S 35th St	Washougal	WA	98671
WAH000055546	KINDER MORGAN BULK TERMINALS LLC	LQG	2701 NW Harborside Dr	Vancouver	WA	98660
WAH000054006	Kyocera International Inc	LQG	18110 SE 34th St	Vancouver	WA	98683
WAD980982383	Kyocera International Inc	LQG	5701 E Fourth Plain Blvd	Vancouver	WA	98661
WAD988505459	Mercury Plastics Inc	LQG	3807 SE Hidden Way	Vancouver	WA	98661
WAD980981286	Nalco Co	LQG	5210 Fruit Valley Rd	Vancouver	WA	98660
WAD050956671	NuStar Terminals Svcs Inc	LQG	2565 NW Harborside Dr	Vancouver	WA	98660
WAH000040989	Pacific Crest Building Supply	LQG	5901 S 11th St	Ridgefield	WA	98642
WAD980833099	SEH America Inc	LQG	4111 NE 112th Ave	Vancouver	WA	98682
WAD000711556	Tesoro Logistics Operations LLC	LQG	2211 St Francis Ln	Vancouver	WA	98660
WAD009051871	Tetra Pak Materials LP	LQG	1616 W 31st St	Vancouver	WA	98660
WAD988521043	Tidewater Industrial Center	LQG	6305 NW Old Lower River Rd	Vancouver	WA	98660
WAH000057695	Trimaco Inc Ridgefield	LQG	7000 S 10th St Bldg 100	Ridgefield	WA	98642
WA1891406349	US DOE BPA Ross Complex	LQG	5411 NE Hwy 99	Vancouver	WA	98666
WAH000022204	US Water Services Inc	LQG	2700 W Firestone Lane	Vancouver	WA	98660
WAH000002246	Wafer Tech LLC	LQG	5509 NW Parker St	Camas	WA	98607
WAD980976625	Allweather Wood LLC	MQG	725 S 32nd St	Washougal	WA	98671
WAH000052256	Blackfly Investment LLC Vancouver	MQG	14401 SE 1st St	Vancouver	WA	98684
WAH000040816	CARIBOU REALTY GROUP	MQG	8914 NE St Johns Rd	Vancouver	WA	98665
WAD009055211	Chemtrade Solutions LLC Vancouver	MQG	2611 W 26th St Extension	Vancouver	WA	98666
WAH000010082	Chevron 208889	MQG	1900 E 162nd Ave	Vancouver	WA	98684
WAH000056995	Christensen Shipyards, LLC	MQG	2301 SE Hidden Way Bldg 37c	Vancouver	WA	98661
WAH000059705	City of Vancouver Water Station 7	MQG	11595 SE 16th St	Vancouver	WA	98684
WAH000034901	CLARK PUBLIC UTILITIES RIVER RD	MQG	5201 NW Lower River Rd	Vancouver	WA	98660
WAH000057435	Dept of Ecology Vancouver Field Office	MQG	12121 NE 99th St	Vancouver	WA	98682
WAR000000273	Ershigs Inc	MQG	5985 S 6th Way	Ridgefield	WA	98642
WAH000003145	Hewlett Packard Co Vancouver	MQG	1115 SE 164th Ave	Vancouver	WA	98684
WAH000024284	Home Depot 4718	MQG	8601 NE Andresen Rd	Vancouver	WA	98665
WAH000026840	Home Depot 4738	MQG	330 SE 192nd Ave	Vancouver	WA	98683
WAH000060475	Hudsons Bay High School	MQG	1601 E Mcloughlin Blvd	Vancouver	WA	98663
WAH000047305	JT MARINE INC	MQG	2301 SE Hidden Way Ste 100	Vancouver	WA	98661
WAH000048160	Long Painting Co Vancouver	MQG	1120 NE 146th St	Vancouver	WA	98685
WAH000050668	Lowes Home Centers LLC 1632	MQG	11413 NE 76th St	Vancouver	WA	98662
WAH000050787	Lowes Home Centers LLC 2954	MQG	18801 SE Mill Plain Blvd	Vancouver	WA	98683
WAD988520235	Mitchell Bros Truck Line Inc	MQG	2303 SE Hidden Way Bldg 17	Vancouver	WA	98661
WAH000057650	nLIGHT Inc Camas	MQG	4637 NW 18th Ave	Camas	WA	98607
WAH000013912	nLIGHT Photonics Corp	MQG	5408 NE 88th St Bldg E	Vancouver	WA	98665
WA0000105767	Oregon Iron Works Inc 3001	MQG	3515 SE Columbia Way Bldg 48	Vancouver	WA	98661
WAH000032324	Pacific Powers Products 6th Way	MQG	6100 S 6th Way	Ridgefield	WA	98642
WAD071824080	Printforia Vancouver	MQG	3201 NW Lower River Rd	Vancouver	WA	98660
WAH000058245	Printforia Washougal	MQG	4060 S Grant St Ste 100	Vancouver	WA	98671
WAD154018436	Sapa Extrusions	MQG	2001 Kotobuki Way	Vancouver	WA	98660

Handler ID	Handler name	Status	Street Address	City	State	Zip
WAH000026656	Target Store 0343	MQG	7809 NE Vancouver Plaza Dr	Vancouver	WA	98662
WAH000026789	Target Store 1883	MQG	8801 NE Hazel Dell Ave	Vancouver	WA	98665
WAH000027896	Target Stores 1444	MQG	16200 SE Mill Plain Blvd	Vancouver	WA	98684
WAD030779623	Thompson Metal Fabrication	MQG	3000 SE Hidden Way	Vancouver	WA	98661
WAH000051080	Trobella Cabinetry Inc	MQG	3201 NW Lower River Rd Unit D	Vancouver	WA	98660
WAD988509048	UPS Vancouver	MQG	6609 NE St Johns Rd	Vancouver	WA	98661
WAD980579304	Vancouver Port Maintenance Shop	MQG	Terminal 3 Building 3205	Vancouver	WA	98660
WAH000037740	Vancouver SD 37	MQG	6014 Fruit Valley Rd	Vancouver	WA	98660
WAH000002345	WA WSU Vancouver Branch Campus	MQG	14204 NE Salmon Creek Ave	Vancouver	WA	98686
WAH000016857	Walmart 2947	MQG	9000 NE Hwy 99	Vancouver	WA	98665
WAH000044577	Walmart NEighborhood Market 3145	MQG	2201 N Grand Blvd	Vancouver	WA	98661
WAH000006627	Walmart Supercenter 2550	MQG	221 NE 104th Ave	Vancouver	WA	98664
WAH000049589	Walmart Supercenter 5461	MQG	14505 NE Fourth Plain Blvd	Vancouver	WA	98662
WAH000029143	Walmart Supercenter 5462	MQG	430 SE 192nd Ave	Vancouver	WA	98683
WAH000046741	Walmart Supercenter 5929	MQG	1201 SW 13th Ave	Battle Ground	WA	98604
WAH000042482	ALBERTSONS 580	SQG	14300 NE 20th Ave Bldg E	Vancouver	WA	98686
WAH000032536	Albertsons 592	SQG	2108 W Main St	Battle Ground	WA	98604
WAD039792106	Alpha Iron dba Vancouver Steel Painters	SQG	3001 SE Columbia Way 41	Vancouver	WA	98661
WAH000049748	Beaming White LLC Vancouver	SQG	1205 NE 95th St Ste A	Vancouver	WA	98665
WAD084421866	BNSF Railway Company Vancouver	SQG	1515 W 39th St	Vancouver	WA	98660
WA0000137489	BP 07054	SQG	10314 SE Mill Plain Rd	Vancouver	WA	98664
WA0000230300	BP 07098	SQG	116 NE 164th Ave	Vancouver	WA	98684
WAH000056150	BP 07130	SQG	11508 NE 119th St	Vancouver	WA	98662
WAH000059650	Burea Veritas Commodities and Trade Inc Vancouver	SQG	2119 SE Columbia Way Ste 280	Vancouver	WA	98661
WAD092300250	Burlington Environmental LLC Washougal	SQG	625 S 32nd St	Washougal	WA	98671
WAD057075947	Caliber Collision Center Vancouver Cascade 2931	SQG	2600 E 33rd St	Vancouver	WA	98663
WAH000047029	Caliber Collision Center Vancouver Hazel Dell 2932	SQG	7631 NE Highway 99	Vancouver	WA	98665

Handler ID	Handler name	Status	Street Address	City	State	Zip
WAH000004085	Caliber Collision Ctr Vancouver Mill Plain 2933	SQG	12025 SE Mill Plain	Vancouver	WA	98684
WAD085974962	Caliber Collision Ctr Vancouver Orchards 2934	SQG	12302 NE 4th Plain Rd	Vancouver	WA	98682
WAR000002451	Cascade Park Medical Office	SQG	12607 SE Mill Plain Blvd	Vancouver	WA	98684
WAD980836365	CLARK CNTY PUBLIC WORKS	SQG	4700 NE 78th St	Vancouver	WA	98665
WAH000055273	Clark County Fire District 10	SQG	21709 NE 399th St	Amboy	WA	98601
WAD000812966	Clark PUD	SQG	8600 NE 117th Ave	Vancouver	WA	98662
WAH000013631	Classic Collision Vancouver	SQG	4615 NE Minnehaha St	Vancouver	WA	98661
WAD009020140	Columbia Machines	SQG	107 Grand Ave	Vancouver	WA	98661
WAH000030400	Corrosion Companies Inc	SQG	3725 S Grant St Ste 3	Washougal	WA	98671
WAH000037143	Costco Wholesale 1086	SQG	19610 SE 1st St	Camas	WA	98607
WAH000023548	Costco Wholesale 772	SQG	6720 NE 84th St	Vancouver	WA	98665
WA0000905000	Crown Plating Inc	SQG	4221 NE St Johns Rd Apt G	Vancouver	WA	98661
WAH000058260	Dept of Ecology Battle Ground ERTS 702764	SQG	24612 NE 214th St	Battle Ground	WA	98604
WAH000057715	Dept of Ecology Vancouver ERTS 698716	SQG	15709 NE 78th St	Vancouver	WA	98682
WAH000058125	Educational Service District 112	SQG	2500 NE 65th Ave	Vancouver	WA	98661
WAD068794387	Emerald Services Inc Vancouver	SQG	1300 W 12th St	Vancouver	WA	98660
WAH000007476	Fabricated Products Inc	SQG	3201 Lower River Rd Blg 2575	Vancouver	WA	98660
WAH000017939	Fabrication Products Inc Minnehaha St	SQG	4201 NE Minnehaha St	Vancouver	WA	98661
WAD061493789	Frito Lay Vancouver	SQG	4808 NW Fruit Valley Rd	Vancouver	WA	98660
WAH000053996	Geneva Woods Pharmacy #48548	SQG	6600 NE 112th Ct, Ste 103	Vancouver	WA	98682
WAH000055534	Hawthorne Hydroponics	SQG	3300 NW 32nd Ave	Vancouver	WA	98660
WAH000055528	Hawthorne Hydroponics	SQG	3204 NW 38th Cir	Vancouver	WA	98660
WAH000048544	Industrial Ctrl Development dba ICD Coat	SQG	7350 S Union Ridge Pkwy	Ridgefield	WA	98642
WAH000014951	Kaiser Mill Plain One Medical	SQG	203 SE Park Plaza Dr Ste 140	Vancouver	WA	98684
WAH000030079	Kaiser Orchards Medical Office	SQG	7101 NE 137th Ave	Vancouver	WA	98682
WAH000056990	Legacy Cancer Institute	SQG	700 NE 87th Ave Ste 360	Vancouver	WA	98664
WAH000026330	Legacy Salmon Creek Hospital	SQG	2211 NE 139th St	Vancouver	WA	98686
WAH000052124	Marks Design & Metalworks	SQG	4220 NE Minnehaha St	Vancouver	WA	98661

Handler ID	Handler name	Status	Street Address	City	State	Zip
WAD041268947	Messer LLC	SQG	4715 NE 78th St	Vancouver	WA	98665
WA0000952374	Micropump Inc	SQG	1402 NE 136th Ave	Vancouver	WA	98684
WAH000054238	Miller Paint Co Inc - Orchards	SQG	11717 NE 78th Way Ste 101	Vancouver	WA	98682
WAH000040634	Miller Paint Co Inc 20th Ave Ste 104	SQG	14300 NE 20th Ave Ste 104	Vancouver	WA	98686
WAD988495438	Miller Paint Co Inc Vancouver	SQG	2607 NE Andresen Rd	Vancouver	WA	98611
WAH000043046	National Container Group LLC	SQG	503 SE Maritime Ave Bldg 5	Vancouver	WA	98661
WAD988475679	NuStar Terminals Ops Partnership LP	SQG	5420 NW Fruit Valley Rd	Vancouver	WA	98660
WAH000041418	Oldcastle BuildingEnvelope Vancouver	SQG	1611 SE Commerce Ave	Battle Ground	WA	98604
WA0000940270	Oregon Cam Grinding Inc	SQG	5913 NE 127th Ave Ste 200	Vancouver	WA	98682
WAD060602711	Pac Paper LLC	SQG	6416 NW Whitney Rd	Vancouver	WA	98665
WAD982821050	Pacific Northwest Plating	SQG	7001 NE 4oth Ave	Vancouver	WA	98661
WAH000056620	Petco 1220	SQG	8820 NE 5th Ave	Vancouver	WA	98665
WAH000056595	Petco 1222	SQG	11505 NE Fourth Plain Rd Ste 82	Vancouver	WA	98662
WAH000008995	Petco 1233	SQG	305 SE Chkalov Dr	Vancouver	WA	98683
WAH000053745	Petrochem Inc.	SQG	6811 NE 131st Ave	Vancouver	WA	98682
WAD988524377	Pick N Pull Vancouver	SQG	9605 NE 76th St	Vancouver	WA	98662
WAH000027762	Quality Carriers Inc	SQG	503 SE Maritime Ave Bldg 5	Vancouver	WA	98661
WAH000039872	Rite Aid #6498	SQG	2800 NE 162nd Ave	Vancouver	WA	98682
WAH000011718	Rite Aid 4067	SQG	3307 Evergreen Blvd Bldg 4	Washougal	WA	98671
WAH000008839	Rite Aid 5291	SQG	13511 SE 3rd Way	Vancouver	WA	98661
WAH000045915	Safeway Store 1103	SQG	6701 E Mill Plain Blvd	Vancouver	WA	98661
WAH000046064	Safeway Store 1287	SQG	800 NE 3rd St	Camas	WA	98607
WAH000044953	Safeway Store 1611	SQG	6711 NE 63rd St	Vancouver	WA	98661
WAH000044994	Safeway Store 1653	SQG	2615 NE 112th Ave	Vancouver	WA	98684
WAH000045024	Safeway Store 1687	SQG	3307 Evergreen Blvd	Washougal	WA	98671
WAH000045030	Safeway Store 1704	SQG	6700 NE 162nd Ave	Vancouver	WA	98682
WAH000045097	Safeway Store 1842	SQG	13023 NE Hwy 99	Vancouver	WA	98686
WAH000045506	Safeway Store 400	SQG	3707 N Main St	Vancouver	WA	98663
WAH000044731	Safeway Store 4313	SQG	904 W Main St	Battle Ground	WA	98604
WAH000044743	Safeway Store 4405	SQG	408 NE 81st	Vancouver	WA	98665
WAR000010249	Salmon Creek Medical & Dental	SQG	14406 NE 20th	Vancouver	WA	98684
WAH000019141	Sheryl Lee DMD LLC	SQG	700 SE 160th Ave	Vancouver	WA	98684
WAH000029439	Silicon Forest Electronics Inc	SQG	6204 E 18th St	Vancouver	WA	98661

Handler ID	Handler name	Status	Street Address	City	State	Zip
WAH000027732	Team Industrial Services	SQG	11917 NE 56th Circle	Vancouver	WA	98682
WAH000057845	Ultrablock Inc Vancouver	SQG	815 NE 172nd Ave	Vancouver	WA	98684
WAH000057825	UNFI DC Ridgefield	SQG	7909 S Union Ridge Pkwy	Ridgefield	WA	98642
WA7360010345	VA Medical Center Vancouver Division	SQG	Fourth Plain Blvd & O St	Vancouver	WA	98663
WAR000007682	Vancouver City Brookside	SQG	2315 General Anderson	Vancouver	WA	98661
WAD981772148	Vancouver Ford	SQG	6801 NE 40th St	Vancouver	WA	98661
WAH000056835	VANCOUVER WESTSIDE WTP	SQG	2323 W Mill Plain Blvd	Vancouver	WA	98660
WAD103015756	Vigor Works Bldg 4400	SQG	4400 SE Columbia Wy	Vancouver	WA	98661
WAD980981369	WA DNR LARCH MOUNTAIN CORR	SQG	15314 NE Dole Valley Rd	Yacolt	WA	98675
WAD988492674	Western Star Northwest	SQG	487 S 56 Pl	Ridgefield	WA	98642
WAH000017921	Western Star Northwest	SQG	600 S 56th Pl	Ridgefield	WA	98642
WAD050966019	A & J CUSTOM CABINETS Inc	XQG	2300 E 1st St Ste B	Vancouver	WA	98661
WAD058146143	Advanced Drainage Systems Inc	XQG	627 S 37th St	Washougal	WA	98671
WAH000057475	Alki Middle School	XQG	1800 NW Bliss Rd	Vancouver	WA	98685
WAH000035344	ASPEN DENTAL VANCOUVER	XQG	8101 NE Parkway Dr Ste	Vancouver	WA	98662
WAH000025188	Battle Ground School District 119	XQG	300 North Parkway	Battle Ground	WA	98604
WAH000056300	BGSD Warehouse	XQG	400 N Parkway Ave	Battle Ground	WA	98604
WAH000059680	Block 18 Development	XQG	SW Of Intersection Of Columbia Way And Waterfront	Vancouver	WA	98660
WAH000043550	BNSF Railway Co Columbia River Bridge	XQG	1502 W 8th St	Vancouver	WA	98660
WAD009624453	Boomsnub Airco Superfund Site	XQG	7608 NE 47th Ave	Vancouver	WA	98661
WAD044938447	C TRAN Clark Cnty Public Transit	XQG	2425 NE 65th Ave	Vancouver	WA	98668
WAH000056310	CAM Academy	XQG	715 NW Onsdorff Blvd	Battle Ground	WA	98604
WAR000000547	Camas City Operations Center	XQG	1620 SE 8th Ave	Camas	WA	98607
WAR000000554	Camas School Dist Bus Shop	XQG	1707 NE Ione St	Camas	WA	98607
WAH000028304	Camas School District Transportation	XQG	1125 NE 22nd Ave	Camas	WA	98607
WAR000002444	Cascade Park Dental Office	XQG	12711 SE Mill Plain Blvd	Vancouver	WA	98684
WAD988469136	CASEE B	XQG	11104 NE 149th St	Brush Prairie	WA	98606

Handler ID	Handler name	Status	Street Address	City	State	Zip
WAD988506101	Central Transfer & Recycling Center	XQG	11034 NE 117th Ave	Vancouver	WA	98662
WAD000832741	CHEVRON BULK PLANT 61001854	XQG	1801 W 39th St	Vancouver	WA	98660
WAH000035970	CLARK COLLEGE COLUMBIA TECH CTR	XQG	18700 SE Mill Plain Blvd	Vancouver	WA	98683
WAH000024464	Clark College LLC WSU V Engineering	XQG	14204 NE Salmon Crk Ave Clark	Vancouver	WA	98686
WAD980985766	Columbian Publishing Co	XQG	701 W 8th St	Vancouver	WA	98660
WAH000058425	EnviroServe Inc Vancouver	XQG	7503 NE 101st St	Vancouver	WA	98662
WA0000072918	Food Express Inc	XQG	2901 NW Lower River Rd	Vancouver	WA	98660
WAH000005751	Food Express Inc Fruit Valley Rd	XQG	3818 NW Fruit Valley Rd	Vancouver	WA	98660
WAH000057480	Gaiser Middle School	XQG	3000 NE 99th St	Vancouver	WA	98665
WAD980738322	Georgia-Pacific Consumer Operations LLC	XQG	349 NW 7th Ave	Camas	WA	98607
WAH000030326	Graces Plaza Cleaners	XQG	717 W Main Vacant Land	Battle Ground	WA	98604
WAH000052366	High Tech Manufacturing Services	XQG	3105 B NE 65th St	Vancouver	WA	98663
WAD006454516	Hood Packaging Corp	XQG	1401 W 4th Plain Blvd	Vancouver	WA	98660
WAR000007955	IMAT INC	XQG	12516 NE 95th St Ste D110	Vancouver	WA	98682
WAH000052297	Knights of Pythias Retirement Center	XQG	3409 Main St	Vancouver	WA	98663
WAD057075889	Mackins Salmon Creek Auto Body	XQG	10803 NE Hwy 99	Vancouver	WA	98686
WAH000057380	Maddox Industrial Transformer	XQG	1608 SE Commerce Ave	Battle Ground	WA	98604
WA0000263319	Messer LLC	XQG	7608 NE 47th Ave SW Cor	Vancouver	WA	98661
WAH000021048	Miller Paint Company Inc East Vancouver	XQG	111 NE 164th Ave	Vancouver	WA	98684
WA0000381707	Miltons Dry Cleaners	XQG	6721 E 4th Plain Blvd	Vancouver	WA	98661
WAD071801625	Northwest Pipeline GP Battleground Dist	XQG	8907 NE 219th St	Battle Ground	WA	98604
WAD000642132	Northwest Pipeline GP Washougal C/S	XQG	T2n R4e S30 NW1/4	Washougal	WA	98671
WAD009035502	Pendleton Woolen Mills	XQG	2 Pendleton Way	Washougal	WA	98671
WAH000058695	Pleasant Valley School Vancouver	XQG	14320 NE 50th Ave	Vancouver	WA	98686
WAH000056305	Prairie High School	XQG	11311 NE 119th St	Vancouver	WA	98662
WAH000052959	Pulse Electronics Inc	XQG	18110 SE 34th Ave Bldg 2	Vancouver	WA	98683
WAD980985311	Qwest Corporation W00359	XQG	11418 Fourth Plain Blvd	Vancouver	WA	98662

Handler ID	Handler name	Status	Street Address	City	State	Zip
WAH000050442	Red Lion Hotels Holdings Inc Vancouver	XQG	100 Columbia St	Vancouver	WA	98660
WAD009422411	Ridgefield Port Lake River Site	XQG	111 W Division St	Ridgefield	WA	98642
WAH000037678	Sherwin Williams #8008	XQG	6307 NE Hwy 99	Vancouver	WA	98665
WAH000057560	Simonds International Ridgefield	XQG	5525 South 11th Street	Ridgefield	WA	98642
WAD988499745	Texaco Downstream 211542	XQG	9404 NE 76th St	Vancouver	WA	98662
WAH000053774	Tidewater Environmental Services Inc	XQG	6305 NW Old Lower River Rd	Vancouver	WA	98660
WAD988466975	Tidland Corp	XQG	2305 SE 8th Ave	Camas	WA	98607
WAH000043028	US Army Reserve 65th St	XQG	15005 NE 65th St	Vancouver	WA	98682
WAH000055000	US DOE BPA SIFTON SUBSTATION	XQG	16700 NE 39th St	Vancouver	WA	98682
WAD009045279	VANCOUVER PORT LOWER RIVER	XQG	5509 NW Lower River Rd	Vancouver	WA	98660
WAH000052684	Vancouver Port of Terminal 1	XQG	300 W Columbia Way	Vancouver	WA	98660
WAH000012955	Veolia ES Technical Solution LLC Vancouv	XQG	5720c NE 121 Ave	Vancouver	WA	98682
WAH000057685	Veolia ES Technical Solutions LLC Vancouver	XQG	3301 SE Columbia Way Bldg 45 Ste 160	Vancouver	WA	98661
WAD988488466	WA AGR Clark 1	XQG	7110 NE 63rd St	Vancouver	WA	98661
WAH000012856	WA AGR Clark 2	XQG	213b SE 120th Ave	Vancouver	WA	98683
WAD076435122	WA DOT Vancouver	XQG	4200 Main St	Vancouver	WA	98661
WAD980979801	WA WSU Vancouver Res & Ext	XQG	1919 NE 78th St	Vancouver	WA	98665
WAH000034951	WASHOUGAL TRANSFER STATION	XQG	4020 S Grant St	Washougal	WA	98671
WA0000472084	West Van Materials Recovery Center	XQG	6601 NW Old Lower River Rd	Vancouver	WA	98660

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APPENDIX N:
Clark County municipal solid waste data

MSW tonnage projections based on anticipated population growth

With an increase in population comes an increase in the amount of solid waste being produced. Population and tonnage projections help plan for future capacity needs at the transfer stations.

Year	2023	2024	2025	2026	2027	2028	2029	2030
Estimated population	527,400	535,453	543,507	551,285	559,330	567,356	575,352	583,307
Estimated MSW tonnage	400,697	406,815	412,934	418,844	424,956	431,054	437,129	443,173

Population data: Washington State Office of Financial Management

Population data link: ***https://ofm.wa.gov/washington-data-research/population-demographics/population-forecasts-and-projections/growth-management-act-county-projections/growth-management-act-population-projections-counties-2020-2050***

Tonnage data: CRC Solid Waste Activity Reports

Annual inbound solid waste tonnage by facility

Inbound tonnage data illustrate how much solid waste is entering the transfer stations through residential, multifamily, and commercial collection services combined. The amount of solid waste being generated is impacted by our population growth as well as consumption choices made by the community.

	2018	2019	2020	2021	2022	2023	6 yr avg	% of 6 yr avg
CTR	233,044	229,036	232,426	251,847	242476	242090	238,487	60.8%
West Van	97,792	105,299	125,247	116,719	130981	126573	117,102	29.9%
WTS	31,919	32,326	36,566	38,638	39849.4	40798	36,683	9.4%
Total	**362,755**	**366,661**	**394,239**	**407,204**	**413,306**	**409,461**	**392,271**	**100.0%**

Source: CRC Solid Waste Activity Reports

Annual customer (vehicle) trips by facility

Counting inbound vehicles illustrates how many self-haul customers are entering the transfer stations, including both residential and commercial customers. This data does not include curbside service trucks in the vehicle count.

	2018	2019	2020	2021	2022	2023	6 yr avg	% of 6 yr avg
CTR	177,703	174,982	213,410	222,730	230341	230796	208,327	62.2%
West Van	63,231	68,075	93,699	89,987	128282	125187	94,744	28.3%
WTS	25,956	28,001	35,067	36,889	28097	38252	32,044	9.6%
Total	**266,890**	**271,058**	**342,176**	**349,606**	**386,720**	**394,235**	**335,114**	**100.0%**

Source: CRC Solid Waste Activity Reports

Outbound tonnage

Outbound tonnage data illustrate how much solid waste is being sent to the landfills. Showing outbound tonnage per year will reflect changes in population and potential impacts from waste reduction and recycling education efforts while outbound data per facility allows regional planners to evaluate staffing and potential traffic impacts based on how busy the transfer station is.

	2018	2019	2020	2021	2022	2023	6 yr avg	% of avg total
CTR	228,018	225,708	225,416	245,333	234,585	232,571.7	231,939	59.0%
West Van	117,984	120,906	118,986	135,915	131,591	121,406.29	124,465	31.7%
WTS	32,020	32,260	36,696	38,244	39,454.6	40,535.66	36,535	9.3%
Total	**378,022**	**378,874**	**381,098**	**419,492**	**405,630.6**	**394,513.65**	**392,938**	**100.0%**

Source: CRC Solid Waste Activity Reports

Outbound containers

Outbound containers reflect the number of containers that are filled with municipal solid waste to be brought to the landfill. Containers from West Van and CTR are transported by truck to Tidewater Barge where the waste is barged to Finley Buttes Landfill. Containers from WTS are transported by truck to the Wasco County Landfill. The use of annual data reflects changes over time.

	2018	2019	2020	2021	2022	2023	6 yr avg	% of avg total
CTR	7,777	7,843	7,583	8,177	8,097	7,874	7,892	58.3%
West Van	4,189	4,186	4,129	4,317	5,061	4,565	4,408	32.6%
WTS	1,041	1,062	1,246	1,286	1,355	1,425	1,236	9.1%
Total	**13,007**	**13,091**	**12,958**	**13,780**	**14,513**	**13,864**	**13,536**	

Source: CRC Solid Waste Activity Reports

Waste Stream Analysis

A waste stream analysis examines the quantity and composition by sampling the municipal solid waste from predefined waste generating groups to determine the material components. Performing a waste stream analysis is a priority of the regional system and is included as an action item in the implementation plan.

Category	1993	1995	1999	2003	2008	2012
Paper	**26.2%**	**23.3%**	**21.8%**	**19.2%**	**18.3%**	**14.6%**
Newspaper	1.8%	2.0%	2.1%	1.6%	1.0%	0.7%
Cardboard	4.7%	5.3%	4.7%	4.0%	4.7%	3.1%
Office and Computer	0.9%	0.9%	0.9%	–	–	–
Mixed Waste Paper	7.7%	6.7%	4.2%	7.0%	5.8%	4.5%
Magazines	–	–	1.1%	–	–	–
Milk Cartons, Other	–	–	0.2%	–	0.2%	0.2%
Non-Recyclable Paper	11.1%	8.4%	8.5%	6.5%	6.5%	3.7%
Plastic	**10.4%**	**11.6%**	**12.9%**	**11.5%**	**13.2%**	**13.7%**
PET Bottles	0.2%	0.4%	0.4%	2.2%	0.8%	0.74%
HDPE Bottles	0.6%	0.7%	0.5%	–	0.6%	0.45%
Bottles 3-7	–	–	0.1%	–	0.1%	0.06%
Tubs	–	–	–	–	–	0.22%
Film and Bags	–	–	–	–	–	5.20%
Plastic Packaging	3.9%	6.9%	6.8%	7.7%	7.4%	0.36
Other Plastic Products	5.4%	3.0%	4.3%	1.7%	3.7%	6.06%
Expanded Polystyrene	0.3%	0.6%	0.8%	–	0.6%	0.62%
Metal	**6.2%**	**6.6%**	**7.2%**	**7.1%**	**6.8%**	**6.0%**
Aluminum Cans	0.4%	0.4%	0.4%	0.3%	0.3%	0.3%
Aluminum Containers	0.1%	0.1%	0.1%	–	–	–
Tin Cans	0.9%	1.1%	0.9%	–	0.9%	0.6%
Mixed Metals/Materials	2.2%	1.5%	2.9%	3.3%	2.4%	3.3%
Ferrous Metals	2.1%	2.5%	2.1%	3.1%	2.8%	1.4%
White Goods	0.3%	0.6%	0.2%	–	–	–
Non-Ferrous Metals	0.2%	0.3%	0.3%	0.2%	0.3%	0.6%
Aerosol Cans	–	0.1%	0.2%	0.1%	–	–
Glass	**2.7%**	**2.7%**	**3.2%**	**2.2%**	**2.8%**	**2.5%**
Clear Bottles	1.4%	1.4%	1.5%	1.0%	1.0%	0.9%
Brown Bottles	0.4%	0.4%	0.7%	0.5%	0.5%	0.5%
Green Bottles	0.3%	0.4%	0.4%	0.3%	0.3%	0.4%
Non-Recyclable Glass	0.6%	0.5%	0.5%	0.5%	0.9%	0.8%
Organic	**28.9%**	**26.8%**	**26.3%**	**29.5%**	**17.7%**	**22.7%**
Food Wastes	12.1%	11.9%	14.5%	15.3%	16.3%	20.4%
Yard Debris	5.8%	4.1%	3.3%	3.8%	1.5%	2.3%
Recoverable Wood	11.0%	10.8%	8.5%	10.4%	9.7%	9.8%
Other Materials	**17.8%**	**19.8%**	**23.0%**	**15.5%**	**19.7%**	**21.2%**
Construction/Demolition	8.4%	8.9%	7.4%	7.6%	6.0%	9.4%
Tires	0.1%	0.3%	0.3%	–	–	–
Rubber Products	0.6%	0.2%	0.3%	–	–	–
Disposable Diapers	2.1%	2.8%	3.1%	–	–	–
Textiles	4.6%	5.7%	3.5%	–	–	–
Carpet	–	–	2.8%	4.5%	1.9%	3.0%
Leather	0.0%	0.1%	0.1%	–	–	–
Hazardous Waste	1.8%	1.5%	2.4%	1.2%	2.1%	0.2%
Medical Waste	–	–	–	–	–	0.0%
Animal Excrement	–	–	–	–	–	1.8%
Household Batteries	–	–	–	–	–	0.1%
E-Waste	–	–	–	–	–	0.1%
Fines	–	–	2.8%	–	–	–
Ash	0.2%	0.3%	0.3%	–	–	–
Reusable Products	–	–	–	2.2%	–	–
Remaining Waste	**8.0%**	**9.3%**	**5.7%**	**15.0%**	**21.6%**	**19.1%**
Total	100.0%	100.0%	100.0%	100.0%	100.0%	99.8%

Source: Historical Waste Stream Analysis reports

O

APPENDIX O:
List of education and outreach programs

Summary of existing solid waste education and outreach programs			
Program Description	**Led by**	**Audience**	**Delivery method**
Workshop series – educating community members on waste reduction, composting, and green cleaning.	Composter Recycler	Residents	Virtual In person Supplies
Volunteer training and management - Annual volunteer training concerning composting, waste reduction, and green cleaning; manages volunteer "payback" efforts	Composter Recycler	Residents	Virtual In person
Resources for home composting systems — backyard compost bins, worm bins, bokashi buckets, websites, social media, newsletters, handouts	Composter Recycler	Residents	Web-based
Compost demonstration sites – field training sessions showing a variety of composting methods and equipment	Composter Recycler	Residents	In person
Online resources for curbside food waste collection – websites, social media, newsletters, handouts	Green Business Green Schools	Businesses Schools	Web-based
Community hub composting — Provides residents with public access to food waste carts for composting.	Green Business Green Neighbors	Businesses Schools Residents	In person Supplies Web-based
Classroom worm bin lessons — Provide lessons to students and classroom worm bins	Green Schools	Schools	In person Supplies
Business support – Provides comprehensive educational training materials, containers, sort tables, and assistance to businesses implementing on-site waste prevention and food waste collection programs.	Green Business	Businesses	In person Printed materials Supplies Web-based
School cafeteria support — Provides comprehensive educational training materials, containers, sort tables, share tables, and assistance to schools implementing on-site waste prevention and food waste collection programs in cafeterias.	Green Schools	Schools	In person Printed materials Supplies
Food Waste Prevention Week – annual education campaign	Green Neighbors	Residents	In person Web-based
Recycling 101 and Recycling 201 Presentations – Provides residents with information about waste prevention, recycling, curbside organics, and household hazardous waste.	City of Vancouver Waste Connections Green Neighbors	Residents	In-person
Classroom curriculum - Provide lessons on sorting materials, recycling process, and composting	Green Schools	Schools	In person Printed materials
Waste prevention, recycling and composting assistance - Provide no-cost site visits, waste audits, and consultations to businesses and schools	Green Business Green Schools Waste Connections	Businesses Schools	In person Printed materials Supplies
Recycling and composting resources – Provide instructional guides, signage and videos for schools and businesses	Green Business Green Schools	Businesses Schools	In person Supplies
Contamination reduction and recycling advertising and social media campaigns	Green Neighbors	Residents	Printed ads Web-based
West Van Material Recovery Center tours	Waste Connections	Businesses Residents Schools	In person
Multifamily support – Supports property managers/owners and provides educational resources to residents including recycling bags, magnets and recycling instructions.	Waste Connections Green Neighbors	Businesses Residents	In person Web-based

Summary of existing solid waste education and outreach programs			
Program Description	**Led by**	**Audience**	**Delivery method**
Lid lifts and cart tagging - During this year-round program, Recycling Advocates inspect residential recycle carts for contamination and provide customer-specific recycling education.	Waste Connections	Residents	In person Printed materials
Annual Recycle Right newsletter	Waste Connections Green Neighbors	Residents	Printed Web-based
RecycleRight app – Provides residents with reuse, recycling and disposal options, in-app reminders and alerts, and collection schedules	City of Vancouver	Residents	Web-based
Resources/educational materials - In partnership with the Master Gardeners Program of WSU, circulate information on natural gardening	WSU Extension Master Gardeners Green Neighbors	Residents	Printed materials
Nontoxic gardening workshops	WSU Extension Master Gardeners	Residents	In person Virtual
Natural Gardens at Pacific Community Park – Support the Natural Gardens and connecting volunteers to support maintenance. Maintain interactive map.	WSU Extension Master Gardeners	Residents	In person Virtual
Natural Garden Tour – public self-guided tour of natural gardens maintained without the use of synthetic chemicals. Gardens include a wide variety of features and innovative techniques to demonstrate successful practices which limit, or eliminate, the use of hazardous materials.	Composter Recyclers WSU Extension Master Gardeners Green Neighbors	Residents	In person Advertisement Digital campaigns
Backyard Habitat Certification – provides residents with education, support, guidance and assistance with the goal of achieving certification as a backyard habitat for their property. Backyard habitat areas are maintained without the use of household hazardous materials including pesticides, herbicides, insecticides and fungicides common in conventional gardening and landscaping practices.	Columbia Land Trust Green Neighbors	Residents	In person
Secure Your Load – provides educational messaging and load securement equipment and tools (cargo nets and rachet straps as provided by WA Dept of Ecology) to residents hauling unsecured loads to the transfer stations. Unsecured loads are a public safety concern as roadside litter pollutes the environment, contaminates our waterways and pose dangerous consequences for drivers encountering unavoidable debris on roadways.	WA Dept of Ecology Clark County	Residents Businesses	In person Advertisement Digital campaigns Printed material Supplies
Battery drop-off outreach – offering safe disposal resources and educational materials and local businesses collecting batteries. Advertise and promote drop-off locations to residents.	Green Business Green Neighbors	Businesses Residents	In person Supplies Printed materials
Event tabling – Attend community events and host a table to provide resources and answer questions about recycling and composting and promote upcoming workshops and classes	Composter Recycler Green Neighbors	Residents	In person
Green Awards – Recognize the accomplishments of individuals and organizations and celebrate their commitment to reducing harmful environmental impacts, educating others, and giving back to the community.	Green Business Green Schools	Residents Businesses Schools	In person Web-based

Summary of existing solid waste education and outreach programs			
Program Description	**Led by**	**Audience**	**Delivery method**
Student Summits - events for student green teams to learn more about sustainability and environmental justice and connect with other green teams working on sustainability projects and initiatives at their schools	Green Schools	Students	In person Virtual
WasteBusters – online pledge program to promote waste prevention	Green Neighbors	Residents	Web-based
Green Business certification – issues certification to businesses meeting criteria for sustainable practices.	Green Business	Businesses	In person
Morning Blend - Coordinate and support informal one hour peer to peer meetings for businesses to share best practices	Green Business	Businesses	In person

P

APPENDIX P: SWAC bylaws

CLARK COUNTY
SOLID WASTE ADVISORY COMMISSION
BYLAWS AND RULES

I. PURPOSE

A. The Clark County Solid Waste Advisory Commission (SWAC) has been established by Chapter 24.16 of the Clark County Code, pursuant to RCW 70A.205.110. The powers, purpose, and scope of the Clark County SWAC shall be limited to those described in Chapters 24.12.110 and 24.16.020 of the Clark County Code and set forth in these bylaws.

II. COMPOSITION AND TERMS

A. Members - The SWAC shall be composed of at least ten (10) members who shall provide ongoing public input, coordination, and information exchange between the SWAC and the groups they represent and serve without compensation.

B. Appointment - Members shall be appointed by the Clark County Councilors with recommendations from the Solid Waste Program staff ("Staff') and shall represent the following interests

- City of Vancouver
- Clark County Business
- Small Cities & Towns
- Solid Waste Industry
- Public Interest Groups
- North Clark County
- Southeast Clark County
- Southwest Clark County
- County-at-Large
- Agriculture

C. Terms - Each member's term shall be for three (3) years' duration, and all vacancies shall be filled within sixty (60) days. Members may be reappointed to serve consecutive terms.

III. OFFICERS

A. The officers of SWAC shall consist of a Chair and Vice-Chair elected by a majority of the appointed members of SWAC.

B. The election of officers shall take place when an office becomes vacant, either at the current officer's last meeting in office, or the meeting immediately following the notice of a vacancy of office.

C. In the event of a vacancy in the position of Chair, the Vice-Chair will assume the position of Chair to complete the remainder of the Chair's term. In the event of a vacancy in the position of Vice-Chair due to the Vice-Chair assuming the position of Chair or for any other reason, the Vice-Chair position shall be replaced by majority vote of all members of SWAC to complete the remainder of the Vice-Chair's term.

D. The term for each officer shall be two years unless the officer's position on SWAC expires or becomes vacant earlier.

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E. There is no limit to the number of terms an officer may serve.

IV. ATTENDANCE

A. Members will notify the Chair and Staff if the member is unable to attend and provide reason, if no reason or notification is provided the absence shall be considered unexcused.

B. In the event a member is absent from over 50 percent of all meetings during a twelve (12) month period or has accrued two (2) or more unexcused absences, that member shall lose his/her position on SWAC, barring exceptional circumstances that will be considered on an individual basis by the Officers and Staff.

V. MEETINGS

A. Regular meetings of SWAC will be held quarterly on the first Thursday with a minimum of four (4) meetings per year held in February, May, August, and November.

B. Special meetings may be called by the Chair or by majority vote of the commission.

C. When expedient and/or necessary, SWAC meetings may be held virtually via available technology(ies) with notification and communication following regular processes.

D. Informal or extra meetings of the SWAC which are educationally focused or that incorporate site tours towards the objective of familiarizing members with background, facilities or programs may be scheduled from time to time, or on a periodic schedule, as warranted.

E. A meeting may be canceled by the Chair for lack of a quorum, scheduling conflicts, or lack of need to meet.

F. The conduct of meetings shall be governed by Robert's Rules of Order, unless these bylaws conflict, in which case these bylaws shall supersede.

G. The Chair shall preside over the meetings of SWAC. In the absence of the Chair, the Vice-Chair shall preside. In the absence of both officers, the members present shall select from among themselves a Chair Pro-Tem who shall preside over the meeting until the return of one of the officers.

H. Quorum -A simple majority of filled seats.

I. Voting

i. Minutes of previous meetings may be approved by majority vote of the members present at the meeting for which the minutes were prepared.

ii. Approval of all other actions will require a majority vote of the entire membership of SWAC.

iii. A vote may be taken by email with the approval of the Chair.

iv. In the event of a tie, the Chair will decide the vote.

VI. COMMITTEES

A. The SWAC may choose to form standing or ad hoc committees to accomplish particular assignments and purposes related to either optimal functioning of the SWAC or in support of policy positions relevant to the Clark County Solid Waste Management Program. Examples of standing committees includes recruitment, or review and input on state legislative proposals and priorities. Ad hoc roles for individual or multiple SWAC members might include support to staff in the review of consultant projects or in the selection of vendors.

B. Standing Committees shall be established through approval of a Charter which is developed and reviewed, then adopted by the full SWAC membership by vote at a regular or special meeting or through email. Individuals or multiple SWAC members agreeing to participate in an ad hoc role for a limited term may be noted in the meeting minutes following a statement of the purpose and agreement by an appointed SWAC member(s) to participate in a specific project that may require additional time.

VII. STAFF

A. The SWAC shall be staffed by the Clark County Solid Waste Program, as necessary, to provide support to the SWAC.

B. Solid Waste Program Staff shall serve in a professional capacity as the SWAC's technical advisory and administrative officer/ s.

C. Minutes will be prepared by Staff and distributed prior to the next regularly scheduled meeting.

D. Agendas will be prepared by Staff from input from the Chair.

i. Staff will engage with Chair one month prior to regular meetings, to identify agenda items.

VIII. COMMUNICATIONS

A. Communications related to SWAC topics or the Solid Waste Program, outside of meetings, by a SWAC member to outside groups, policy makers, or the media shall be directed through the SWAC Chair and the Solid Waste Program Manager, unless in an assigned capacity as a SWAC representative.

B. Communications by SWAC members with Clark County staff, related to SWAC topics, shall be directed through the Chair and the Solid Waste Program Manager.

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C. SWAC members shall keep any confidential information acquired during their service protected and secured.

IX. AMENDMENTS

A. These Bylaws and Rules may be amended at any regular or special meeting of SWAC by majority vote of the entire SWAC membership. Amendments should be submitted in writing for discussion prior to the meeting. Final action will not be taken until a subsequent meeting. These bylaws will be reviewed at least every two years (normally odd years) at the Spring meeting.

X. SEVERANCE CLAUSE

A. Should any portion of these bylaws be declared unconstitutional or otherwise contrary to law, such decision shall not affect the validity of the remaining portion of these Bylaws and Rules.

Revised – March 17, 2021

These Bylaws and Rules are hereby amended and adopted in a duly noticed meeting held on May 6, 2021, by a majority vote by a majority of the SWAC members.

SWAC Chair _____ Date 05/17/21

Q

APPENDIX Q:
RSWSSC bylaws

Regional Solid Waste System Steering Committee Bylaws

Article I.
Membership

The Regional Solid Waste System Steering Committee (RSWSSC) shall be comprised of the Public Works Directors or their designees from the Cities of, Battle Ground, Camas, La Center, Ridgefield, Vancouver, Washougal, the town of Yacolt and the Public Health Director for Clark County which is the lead agency for the regional effort. Members must be a signatory to an inter-local agreement with Clark County.

Article II.
Meetings of Members

Members shall meet semiannually throughout the year. Special meetings may be called by three members with at least 21 days notice to the lead agency who will inform all members. No business shall be conducted at a meeting unless a quorum is present. A quorum is defined as 50% of the membership plus one.

At least annually, the RSWSSC will review the recommendations set forth in the Comprehensive Solid Waste Management Plan so that necessary program funding may be incorporated into budgets and the results evaluated.

Article III.
Purpose of Committee

A project of the RSWSSC is the assessment and study of the practicality, advantages, disadvantages, and cost of forming a separate solid waste district, or other organizational structure(s), that would improve service to citizens and further the objectives of our regional solid waste program.

The meetings of the RSWSSC shall be a forum whereby system members may share information pertinent to the efficient and safe disposal of solid waste and efforts to reduce or divert solid waste from the landfill.

RSWSSC meetings are an opportunity for members to articulate their organizations' priorities so that both the shared and divergent priorities receive due professional consideration among partners in the system, thereby providing sound direction for the development and maintenance of the Regional Solid Waste System.

The RSWSSC will provide recommendations to policy-makers and elected officials on the budget process and monitor progress towards accomplishing the priorities for waste reduction, waste recycling, and other programs and goals set forth in the Comprehensive Solid Waste Management Plan, and shall play an important role in matters related to development of the Regional Solid Waste System.

The RSWSC members will have sufficient familiarity with regional programs and technical issues to provide knowledgeable review and comment into the following activities:

- Annual work plan process.
- Coordinated efforts to develop and bid contracts related to solid waste planning, programs or logistical systems.
- Initiatives to review and test technological advances.
- Program marketing efforts.

Article IV
Powers and Duties of the Committee

- Decision making process on special waste issues that are not clearly addressed under the existing collection, transfer and disposal contracts.
- All decisions by the group must be approved by a 2/3 vote of the members present including the lead agency.
- Develop an emergency management and response plan including a system for managing disaster debris and alternative disposal options
- Develop mutual aid contracts and/or joint vendor contracts – share resources and support.
- Address jurisdictional authority and responsibility left unclear by existing agreements and contracts.
- Participate in long term planning guidelines for development of SWMP.
- Implement the plan: annual review and coordinate budget development
- Receive an annual report to the committee from staff.

Article V
Bylaw Changes

- No change may be made to these bylaws that is in conflict with any written agreement or contract between the parties or is in conflict with the adopted SWMP.
- Changes to these bylaws require a unanimous vote of all current members.

R

APPENDIX R: Ecology compliance checklist

Solid Waste Management Planning Element	Regulation or Ordinance	Location in plan
A detailed inventory and description of all existing solid waste handling facilities including an deficiencies in meeting current solid waste handling needs.	RCW 70A.205.045(1)	***Section 10.2*** Conditions assessment and ***Appendix J***
The estimated 20 year needs assessment for solid waste handling facilities	RCW 70A.205.045(2)	***RSWSS Appendix - I***
Review of federal, state, and local regulations and ordinances related to solid waste planning	RCW 70A.205.045(3)(a)	***Section 1.3*** Required content and ***Appendix F***
Consideration given to the comprehensive land use plan of each jurisdiction	RCW 70A.205.045(3)(b)	***Section 1.5*** Relationship to other plans
Plan supportive of state's solid waste management plan and solid waste priorities	Recommended by Ecology	***Section 1.5*** Relationship to other plans
Financing Solid Waste Infrastructure and Operations – Six year capital program for solid waste facilities	RCW 70A.205.045 (3)(c)	***Section 11.4*** Capital needs and financing plan RSWSS ***Appendix - I***
Financing Solid Waste Infrastructure and Operations – Plan for financing both capital and operational expenditures	RCW 70A.205.045 (3)(d)	***Chapter 11***: Funding and financing solid waste infrastructure and operations RSWSS ***Appendix - I***
Surveillance and control - permitting solid waste facilities, address illegal dumping and accumulation, enforcement	RCW 70A.205.045 (4)	***Chapter 3***: Enforcement
"Waste collection – Description of service areas and needs for each jurisdiction - WUTC or local - contracts - population density of each area served - projected needs of each jurisdiction for next 6 years"	RCW 70A.205 (5)	***Chapter 9***: Solid waste collection
Waste collection – Determination of service level (urban and rural designation)	RCW 70A.205.050	***Section 9.2*** Urban-rural designation
Waste reduction and recycling programs - Reduce waste generated	RCW 70A.205.045 (6)	***Chapter 4***: Waste reduction ***Appendix O***
Waste reduction and recycling programs - Incentives and mechanisms for source separation	RCW 70A.205.045 (6)	***Chapter 5***: Recycling
Waste reduction and recycling programs - Recycling opportunities	RCW 70A.205.045 (6)	***Section 5.5*** Existing recycling education and outreach programs
Identification and prioritization of waste reduction strategies	RCW 70A.205.045(7) (a)	***Chapter 4***: Waste reduction ***Chapter 6***: Organics
Recycling and waste diversion – Urban services (must include source separation)	RCW 70A.205.045 (7)(b)(i)	***Chapter 5***: Recycling
Recycling and waste diversion – Rural services (must include source separation)	RCW 70A.205.045 (7)(b)(i)	***Chapter 5***: Recycling
Recycling and waste diversion – Non-residential monitoring	RCW 70A.205.045 (7)(b)(ii)	***Chapter 5***: Recycling
Recycling and waste diversion – Organics management	RCW 70A.205.045 (7)(b)(iii)	***Chapter 6***: Organics ***Chapter 9***: Solid waste collection

Solid Waste Management Planning Element	Regulation or Ordinance	Location in plan
Recycling and waste diversion – Education programs	RCW 70A.205.045 (7)(b)(iv)	Embedded into chapters, intro to green programs
Recycling and waste diversion – Designation of recyclable materials	RCW 70A.205.045(7)(c)	***Section 5.3*** Designated recyclable material list
Recycling and waste diversion – Process for modifying list	Recommended by Ecology	***Section 5.3*** Designated recyclable material list
Recycling and waste diversion – Description of markets	RCW 70A.205.045(7)(c)	***Section 5.3*** Designated recyclable material list
Recycling and waste diversion – Description of waste composition	RCW 70A.205.045(7)(c)	***Section 5.2*** Conditions assessment
Assessment of plan costs on solid waste collection (WUTC review)	RCW 70A.205.045 (8)	***Appendix C***
Facility siting requirements	RCW 70A.205.110 & RCW 70A.205.045 (9)	***Appendix I***
Contamination reduction and outreach plan	RCW 70A.205.045 (10)	***Section 5.4*** Contamination reduction and outreach plan
SEPA documentation	Required by Ecology	***Appendix B***
Interlocal agreements	Required by Ecology	***Appendix D***
Resolution of plan adoption from all jurisdictions	Required by Ecology	***Appendix E***
SWAC participation	RCW 70A.205.110	Provided description in ***Section 1.3*** Required content, included website link, and outlined in ***Section 1.7*** The Solid Waste Advisory Committee
Evidence of public meeting(s)	Required by Ecology	***Section 1.4*** Required content
Change log of comments and responses from Ecology and WUTC review	Required by Ecology	***Appendix S***
Locally defined amendment and revision process	Recommended by Ecology	***Section 1.11*** Process of updating the plan
SWAC Bylaws	Recommended by Ecology	***Appendix Q***
RSWSSC Bylaws	Recommended by Ecology	***Appendix R***
Moderate risk waste plan	RCW 70A.300.310	***Chapter 7***: Moderate risk wastes

S

APPENDIX S: Public and Ecology comments

To be added upon finalization.

CLARK COUNTY, WASHINGTON

DRAFT