RESOLUTION NO. 2022-002

A Resolution of the City of Granite Falls adopting the 2021 Update of the Snohomish County Comprehensive Solid and Hazardous Waste Management Plan

WHEREAS, the 2021 update of the Snohomish County Comprehensive Solid and Hazardous Waste Management Plan contains the required elements for such a plan as mandated by state law, and said elements are important to the city's solid waste management activities; and

WHEREAS, the update to the existing Snohomish County Comprehensive Solid and Hazardous Waste Management Plan was prepared in accordance with chapter 70.95 RCW, which requires that the City either adopt the county-wide plan or develop its own plan which must be approved by the Department of Ecology; and

WHEREAS, public input and comment was accepted through the development of the plan through various means and ways and the involvement of the Snohomish County Solid Waste Advisory Committee was the main organization associated with the development of the plan; and

WHEREAS, final adoption of the Snohomish County Comprehensive Solid and Hazardous Waste Management Plan by the Snohomish County Council and the Washington State Department of Ecology is contingent upon adoption of the Plan by the participating cities in Snohomish County; and

WHEREAS, it appears to be in the best public interest to adopt and implement the 2021 update of the Snohomish County Comprehensive Solid and Hazardous Waste Management Plan.

NOW, THEREFORE, BE IT RESOLVED that the City of Granite Falls adopts the 2021 update to the Snohomish County Comprehensive Solid and Hazardous Waste Management Plan;

Passed by the City Council of the City of Granite Falls on this 18th day of May, 2022.

CITY OF GRANITE FALLS

Matthew Hartman, Mayor

ATTEST:

Darla Reese, MMC, City Clerk

APPROVED AS TO FORM:

Thomas Graafstra, City Attorney
Emily Guildner, City Attorney













Comprehensive Solid and Hazardous Waste Management Plan - 2021

PRELIMINARY DRAFT COPY: July 1, 2021

Snohomish County
Public Works
Solid Waste

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Cover images (left to right):

Top Row: Intermodal containers filled with garbage headed to Roosevelt Landfill via rail; Solid Waste Administration Office, Downtown Everett
Middle Row: Roll-off container truck; Recycle bins at the Southwest Recycling and Transfer Station
Bottom Row: Southwest Recycling and Transfer Station; Tipping floor at the Airport Road Recycling and Transfer Station

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DRAFT

INTRODUCTION

THE PLAN

This document is a plan for managing the solid waste (garbage, recyclables, and organics) generated in Snohomish County. Part of this plan also addresses hazardous and toxic wastes. This plan is intended to be a guide for the proper management of these wastes.

The current solid waste management system in Snohomish County is working well, but does face some challenges in the future, especially related to recycling contamination and market issues.

IMPORTANCE OF PLANNING

The Need for Solid Waste Planning

To ensure that solid waste is collected, handled, recycled, and disposed of in an environmentally sound manner that protects public health, Washington state regulations require the county to have an approved comprehensive solid waste management plan. Snohomish County currently operates an effective solid waste system that benefits from the foresight and development of previous solid waste plans. Building on that foundation, this Solid Waste Management Plan (the "Plan"):

- provides an opportunity to evaluate and refine existing programs and activities;
- identifies policies that will help implement the recommended programs and practices;
- and provides a road map for how the County will handle solid waste issues in the future.

Participating Jurisdictions

The following cities and towns (depicted in Figure 1 on the following page) have signed an interlocal agreement to participate in this Plan.

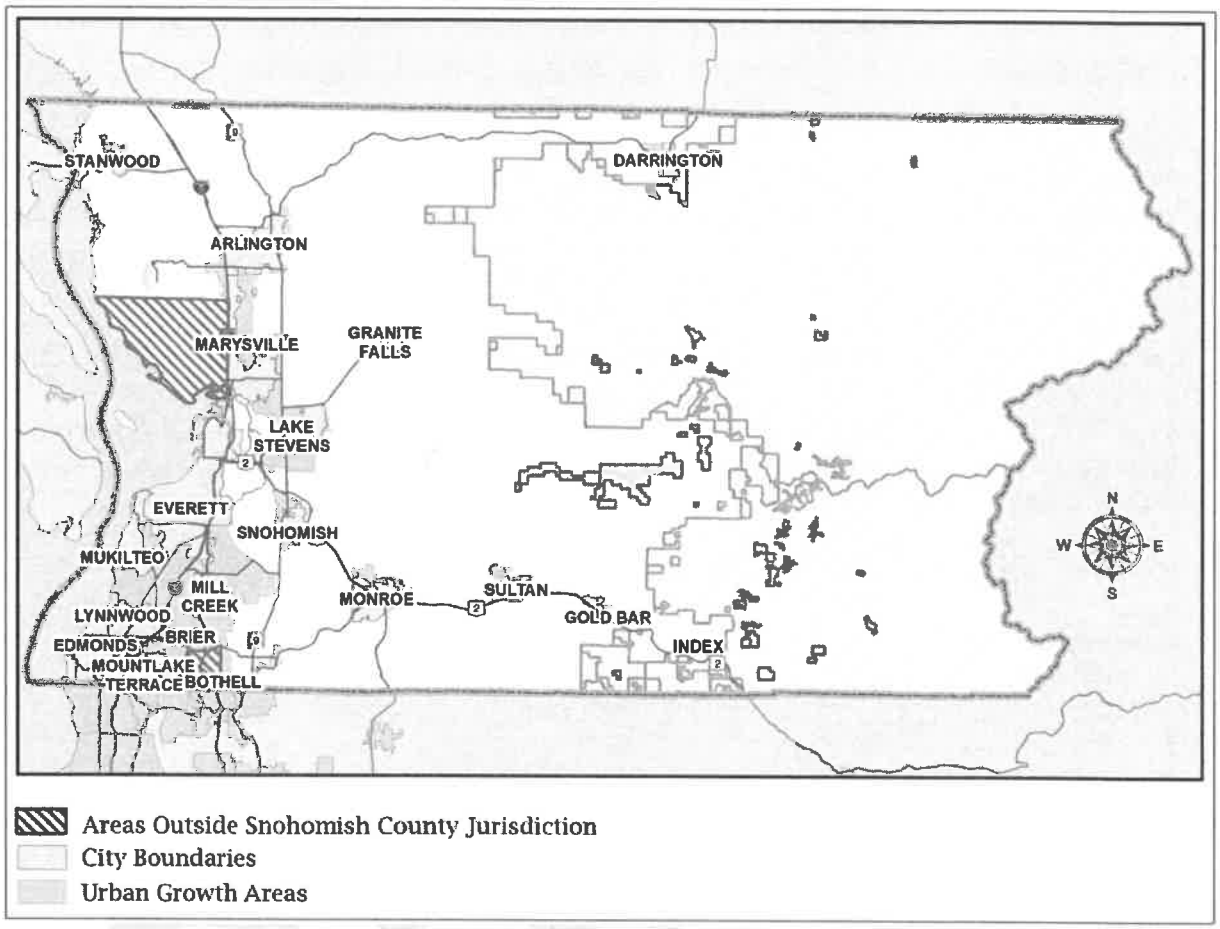
Arlington	Edmonds	Index	Mill Creek	Snohomish
Bothell (*)	Everett	Lake Stevens	Monroe	Stanwood
Brier	Gold Bar	Lynnwood	Mountlake Terrace	Sultan
Darrington	Granite Falls	Marysville	Mukilteo	Woodway

(*) part of Bothell is in the King County system.

Relationship to Other Documents

This Plan utilizes the Snohomish County Comprehensive Plan for a majority of the planning background information. This includes housing types, population growth, and development projections. More in-depth information on these factors, as well as on the

Figure 1. Map of participating jurisdictions



environmental characteristics of Snohomish County and the designation of urban and rural areas, can be found in the Comprehensive Plan.

Other related plans include the Moderate Risk Waste (MRW) Plan, an update of which is attached to this Plan as Appendix B, shoreline master programs, and land use plans and associated zoning codes for Snohomish County and its cities and towns.

ORGANIZATION OF THIS PLAN

Vision and Goals for Plan

The vision for this update of the Snohomish County Solid Waste Management Plan is to shift to a more sustainable future, where people are generating less waste and are handling the wastes that they do generate in an environmentally and sustainably sound manner emphasizing the concepts of reduce and reuse as opposed to focusing on recycling.

This vision is the underlying concept for the two major goals of this Plan:

GOAL I: Support actions to reduce climate change and promote sustainability.
GOAL II: Ensure efficient services for a growing and changing customer base.

The goals are in turn reflected in the policies that are used in this Plan to consider additional programs and recommendations for enhancements to the solid waste system. The vision statement, goals and policies are described in more detail in the Vision for the Future section of this Plan.

Structure of this Plan

This Plan consists of this document, which provides background information and a summary of the recommendations, and a series of technical memorandums and appendices that address specific topics in detail. The electronic version of this plan includes numerous links to other sections of this Plan and to external documents and other sources of information.

A more detailed description of the three parts of this Plan is provided below:

Volume I

Volume I is this part of the document, and it contains a narrative summary of background information, policies, recommended alternatives and a summary of accomplishments for the last planning cycle.

Technical Memorandums

Volume II is a series of technical memorandums that address specific aspects of the solid waste system. Each memo supports one or both of the two overarching goals of the plan and also has its own specific policy statement. The technical memorandums contain background information on each topic, related regulations, near and long-term planning issues, and possible alternatives on how to address policies, service gaps and recommendations specific to that part of the solid waste system.

Appendices

The Appendices contain background information on specific topics and parts that satisfy regulatory requirements such as the Contamination Reduction and Outreach Plan (CROP), State Environmental Policy Act (SEPA) checklist and the Washington Utilities and Transportation Commission (UTC) cost assessment questionnaire. Also included in the appendices are the MRW plan, documents related to the plan adoption process, and other information such as a glossary.

THE CURRENT SYSTEM

INTRODUCTION

Snohomish County's management of solid waste has evolved over time based on population growth and cultural changes. At the inception of the Solid Waste Division (the "Division") in 1972, the County's population was 263,300. By 2010, the population had almost tripled to nearly 726,000 and in 2019, the population was approximately 822,083. This growth, and the changes that have occurred in the geographic distribution of the population, required a significant investment in facilities and services to ensure adequate accessibility and availability to all users. In addition, there must be coordination and cooperation with the local waste haulers who provide collection services to residences and businesses. The haulers typically have the most direct contact with the residents and are expected to continue helping accomplish the goals and policies set forth in the Plan.

The amounts and types of wastes have also grown over the years, requiring more facilities with new capabilities to properly manage these wastes. Many items that were formerly disposed of are now part of countywide diversion programs that recycle or reuse them. This cultural shift acknowledges the benefits of recycling and has required the evolution and growth of the basic services and policies of the Division.

HOW DID WE GET HERE?

Our Interaction with Garbage

Prior to the nineteenth century very little household waste was produced and very little of what was produced was permanently disposed of. Most of it was organic, such as food scraps, and was fed to livestock or rendered and remade into other products. Clothing was patched until it was no longer wearable, and then the scraps were used as rags or sewn together for other uses. The majority of waste produced at this time was ash from industrial processes.

With the advent of the industrial revolution came the proliferation of disposable items and the association of these items with wealth and progress. Consumerism had arrived. Suddenly there was an ever-growing selection of products from which to choose. From napkins to watches, people were able to purchase inexpensive items and toss them out at the end of their life. This was associated with increased product marketing and a continual need to develop new and improved "things."

The ongoing growth of consumerism created more garbage and the need for waste management services. Private companies developed to serve this need. Cities and towns began to pass ordinances and regulations for managing waste. Entire departments and divisions were established to handle the growing volumes of this new waste stream. At the same time industry was developing their own new wastes that

contained more chemicals, composites and engineered materials that had never been seen before. These materials were different and some required special disposal methods to protect the public and the environment. It took decades to fully understand the potential dangers to the public posed by some of these materials.

By the end of the twentieth century, waste management had become a combination of science and art. New technologies are constantly being tried to find the "best" way to dispose of or recycle waste. Landfills win awards for becoming parks and open spaces, as well as producing alternative sources of energy. In addition, the idea of waste and how much we produce is being pushed to the forefront of the consumer's mind more than ever before. Today, an individual shopping at a store faces the decision of buying a product that is packaged with or without recycled material. Or, before they throw something out, they need to determine whether the object is reusable, recyclable, compostable, garbage, or a household hazardous waste.

Much of the recyclables collected in this area were shipped overseas until 2018, when China's government issued new mandates and restrictions on what recyclables may be imported into the country. The combination of increasing amounts of contamination in single-stream programs and the inability of processing facilities to effectively remove these contaminants severely impacted markets for these materials. The availability of the Chinese markets had previously allowed collection and processing systems to operate without penalties for contamination, until the marketed recyclable materials became so dirty that the Chinese government started to restrict the import of these materials and then implemented a ban on numerous materials known as the China Sword initiative. This created huge problems for recycling programs in the U.S., as materials continued to be collected but without a market to take them. This led to stockpiling of baled materials, landfilling of recyclable materials in a few cases, and some program cutbacks. Paper mills and other companies in the United States and Canada are responding by increasing capacity, but this takes time. The situation has improved and will continue to improve,





Site Attendants assisting customers during the COVID-19 pandemic

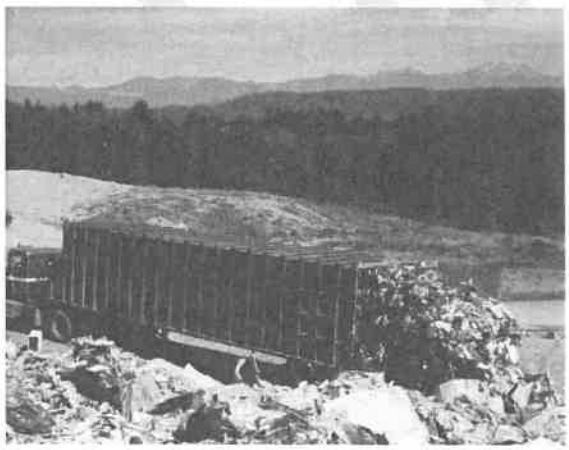
but clearly the recycling stream needs to be cleaned up to avoid a repeat of this situation.

Most recently, the COVID-19 pandemic changed the way solid waste was collected. As people are quarantined at home and businesses were closed to limit transmission of the virus, solid waste was still generated but at a different location. Additionally, citizens cleaned up and decluttered their households, creating a spike in self-haul customers to dispose of their material. In Snohomish County alone, there was an 8% increase in the number of self-haul customers between 2019 and 2020. This occurred despite efforts to emphasize that everyone should remain at home and only visit solid waste facilities to dispose of essential garbage. Business and commercial hauling tonnage saw a 7% decrease throughout the year. The continuation and total impact of pandemic remains unknown on solid waste systems.

Snohomish County Solid Waste Beginnings



Town of Gold Bar Dump Shack, circa 1970



Cathcart Landfill, 1987

Historically, the solid waste disposal needs for Snohomish County were satisfied by a number of relatively small, independently operated, open dumps. None of the disposal sites would be considered acceptable by today's standards. Rats, odors, contaminated water, and uncontrolled gas production characterized most of the old disposal sites. In addition, poor service levels, inadequate planning, lack of inter-agency coordination, and inadequate handling of special wastes was also a problem.

A major change occurred with the closure of the Emander Landfill (McCollum Park) in 1967. As a result of this closure, use of the City of Everett Landfill increased greatly, to the point that its estimated site life was less than five years. (The Everett landfill stopped accepting waste in 1974.) Furthermore, no coordinated solid waste planning between various jurisdictions had taken place to ensure that a replacement disposal site was available.

In response to the disposal capacity problem facing the urban areas of the county, the Board of Health for the

Snohomish Health District directed its staff to spearhead the formation of a group tasked to identify and develop alternative solutions to existing solid waste disposal problems, with an emphasis on regionalization. The Solid Waste Disposal Steering Committee was created by formal resolution of the County Council in 1968.

In the midst of the Solid Waste Disposal Steering Committee's early planning efforts, the Washington State Legislature adopted major solid waste management legislation. This Solid Waste Management Act of 1969 required that every county in the state of Washington prepare a comprehensive solid waste management plan.

An interim plan, completed in May of 1971, offered recommendations to the Solid Waste Disposal Steering Committee covering additional steps required for the implementation of a regional solid waste management system. Although the act did not require the implementation of regional systems, the framers of the act saw the efficiency that could be gained through inter-jurisdictional coordination, with management of transfer and disposal systems taking place at the county level.

The Snohomish County Public Works Department was established in April 1972. The department was directed, authorized, and empowered to implement all public works projects undertaken by the County. With the appointment of a Director of Public Works in January of 1973 and a Solid Waste Director in March of 1973, efforts intensified to implement the interim plan's recommendations for the physical disposal system and to develop new alternatives where needed.



Cathcart Landfill, circa 1989

A model drop box site was opened near Gold Bar in June of 1974 and as a result, both the Index and Gold Bar dumps were closed and removed from service. The Granite Falls Drop Box and the Lake Roesiger Drop Box were constructed shortly after and the Sultan Drop Box opened in the spring of 1977. The Oso Drop Box was opened in 1987(in 2009, the Oso and Gold Bar Drop Box sites were closed). Waste from the drop box sites is currently taken to a county transfer station where it is compacted and sent to a landfill in eastern Washington.

Snohomish County's first comprehensive solid waste management plan, written under Washington State's new regulations, was completed in October 1974 and approved by the State of Washington Department of Ecology in April 1975. This plan recommended that Snohomish County assume jurisdiction over all disposal and collection sites within Snohomish County including drop boxes, transfer stations, and landfills. All of the cities and towns yielded their authority over planning and designation of transfer and disposal locations to the Snohomish County Department of Public Works Solid Waste Division (the "Division").

CURRENT FACILITIES AND PROGRAMS

An overview of the current system is provided below, followed by more detailed information on facilities and programs as these relate to the two major goals of this planning process. The two goals are to:

1) Support actions to reduce climate change and promote sustainability.
2) Ensure efficient services for a growing and changing customer base.

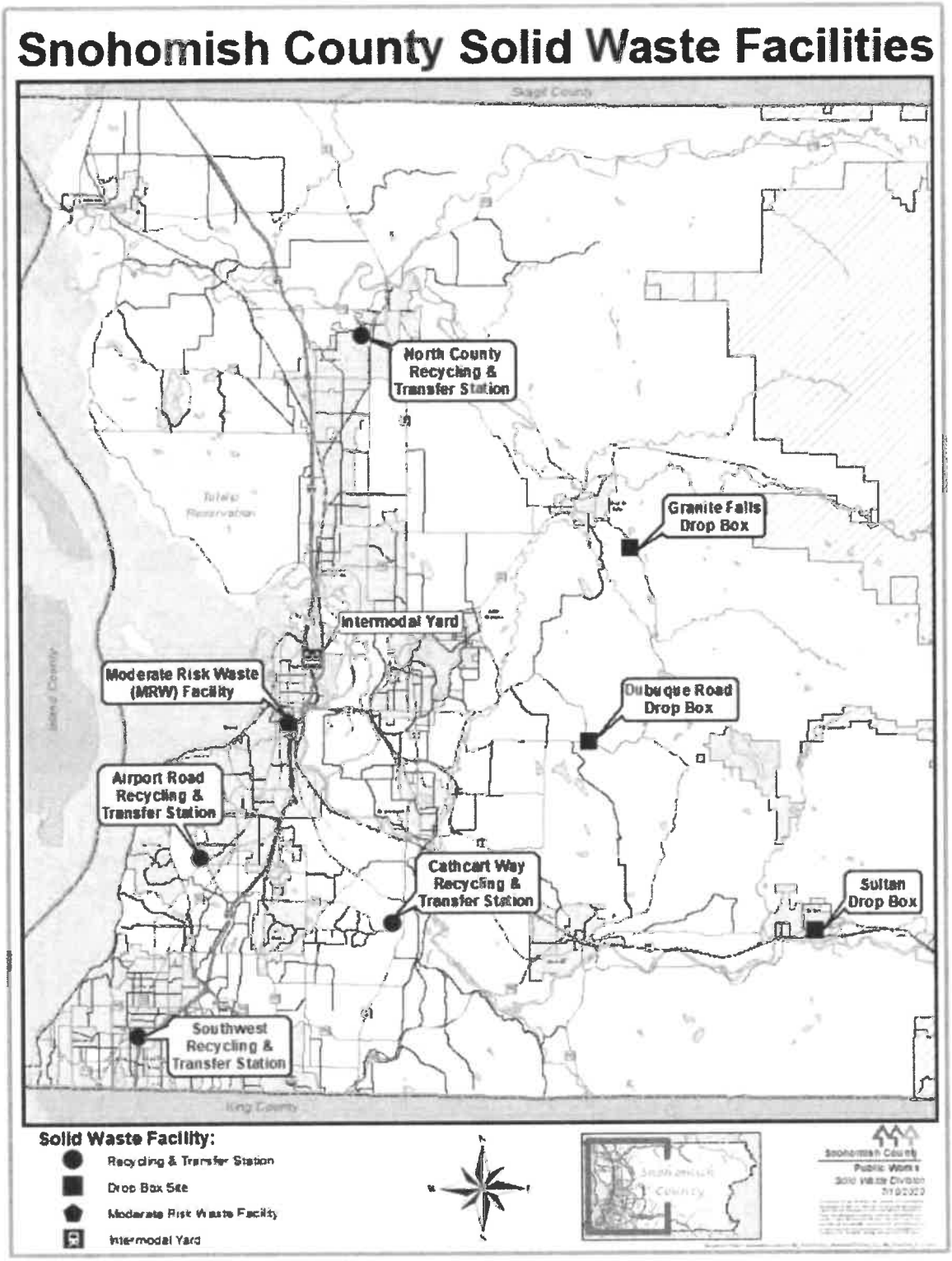
These goals and the associated policies are also discussed in the next section of this Plan (Vision for the Future).

System Overview

The current system involves a large number of private companies and public agencies that provide the services and programs to address various components of solid and hazardous waste management.

There are four private collection companies in Snohomish County: Waste Management Northwest, Republic Services, Inc (formerly Allied Waste Services and Rabanco), Rubatino Refuse Removal, Inc, and Sound Disposal, Inc. A fifth hauler, Recology, collects in the City of Bothell, which is only partially in Snohomish County. In addition, the City of Marysville provides collection services within their boundaries. As of January 2021, the City of Sultan contracted with Republic Services to provide garbage, recycling and yard debris collection services to city residents. The other cities and many other private collection companies are also involved to varying degrees in the solid waste system in Snohomish County. These activities are discussed in several of the technical memorandums that make up this Plan. Most of the rest of this section provides information about the County's role and activities.

Figure 2. Map of Solid Waste Facilities



Facilities and Operations

Transfer stations and drop box sites (formerly known as Neighborhood Recycling and Disposal Centers or NRDCs), have managed the bulk of waste produced in the county since the Division's inception. Figure 2 is a map of Snohomish County Solid Waste facilities. Currently the Division operates three transfer stations and three drop box sites. A fourth transfer station (Cathcart) is utilized when one of the other stations is temporarily closed for maintenance or repair. In addition, the Division has two closed drop box sites that are available for emergency use.

The transfer stations are located in the more urbanized areas of the County and provide service to the greatest number of residents, while the drop boxes are distributed throughout the more rural areas of the County. The waste collected at the transfer stations and drop box sites is compacted and trucked to an intermodal facility in Everett, from which it is shipped by rail to the Roosevelt Regional Landfill in Klickitat County. On an average day, the County ships 1,500 tons of waste to Roosevelt.

Prior to the waste-by-rail system, garbage had been disposed of at the Cathcart Landfill, which operated from 1980 to 1992 and received 3,641,560 tons of waste during that time.



Intermodal yard, Roosevelt Regional Landfill



Intermodal shipping containers

The Cathcart landfill was one of the first in the country to be constructed under new standards regulating landfills. These standards included a flexible membrane liner system, leachate collection system, and an active landfill gas extraction system for capturing methane gas produced from the landfill.

Shortly after the facility was opened, the site selection process for another larger landfill was started in combination with the siting process for a waste-to-energy (incinerator) facility. The concept for the county's waste disposal system was one large landfill and one incinerator. At the conclusion of the siting process, it was determined that the best site for a new landfill was adjacent to the Cathcart Landfill. The design and construction process for the new landfill was started.

Simultaneously, the siting process for an incineration facility was moving forward when Klickitat County announced the

construction of a large regional landfill near Roosevelt, Washington. Snohomish County studied the concept of transporting its waste by train or truck to a distant landfill and determined that it would be less expensive than incineration. Subsequently, the County requested proposals from the owners of such disposal sites and wound up awarding a contract to the Rabanco Company to use the landfill it had built in Klickitat County. In committing to the waste by rail system for disposal, the County abandoned the concept of incineration. Since the County was one of the first jurisdictions in the country to implement waste by rail, however, and since the Klickitat landfill was not yet completed at the time the contract was signed, it was decided to construct the first phase of the County's new "Regional Landfill" as a backup facility. Every effort was made to avoid placing waste into this first phase of the new landfill due to the long-term regulatory and maintenance costs that would follow.

In order to maximize efficiency with the waste by rail process, Snohomish County needed to update its transfer stations to accommodate waste compactors. Up until this time, waste was compacted directly into heavily built tractor trailers, which were impractical to use in the long-haul plans. Lighter weight shipping containers necessitated the installation of larger compactors which could create denser bales and insert them into the containers. New compactors were installed at the Southwest Recycling and Transfer Station and North County Recycling and Transfer Station in 1992. The Everett station did not have compactors installed until 2001. Prior to the installation of a compactor at the Everett Station, upgrades to the temporary transfer station facility at Cathcart were completed for its use. This began the use of the Cathcart Way Transfer Station as a temporary facility to be used during construction and maintenance at other solid waste facilities.

The Everett Station was located on land leased from the City of Everett. That lease was set to expire at the end of 1994, and the City expressed the desire to redevelop the property, requiring development of a new transfer station. A lease extension was negotiated, but the County had to push to develop a new station.

The siting process for new stations consumed much of the 1990's. The process focused on replacing the Everett station, meeting the needs of the growing population in east Snohomish County (which had previously been served by the Cathcart Landfill), and planning for overall county growth. Eventually the Airport Road Recycling and Transfer Station was sited and built in 2003, and a new, much larger Southwest Recycling and Transfer Station was built at the previous SWRTS location in 2004. Although these two new facilities provided greater capacity than needed at the time, they established a stable solid waste disposal system for the County which is capable of meeting the County's solid waste needs into the future. The large flat floor designs also provided increased flexibility in handling and recycling waste.

Waste-by-rail has proven to be a reliable and environmentally-sound method to manage the County's wastes. In 2016, Snohomish County purchased the intermodal rail yard

facility in North Everett. Additional acreage adjacent to the intermodal facility was purchased in 2019 for future expansion of the site.

Most recently, Snohomish County took ownership of the Sisco landfill and surrounding property in 2016 as part of a settlement agreement. Snohomish County performed supplemental investigations in 2017 through 2019 to update the data for site conditions and support development of a Revised Feasibility Study, which is currently being reviewed by Ecology.

The Division also operates a vactor facility at the Cathcart Way Operations Center in unincorporated Snohomish County. This facility accepts street sweepings and vactor waste from the maintenance of storm water control structures.

In response to the Hazardous Waste Management Act, the Moderate Risk Waste (MRW) collection facility was opened in 1996 in Everett. This facility offers free disposal of household hazardous wastes from Snohomish County residents. For a fee, it also accepts hazardous waste from commercial businesses that generate small quantities of hazardous waste.



Airport Road Recycling and Transfer Station



Southwest Recycling and Transfer Station



North County Recycling and Transfer Station



Moderate Risk Waste Facility

Programs

In 1989, the State of Washington passed the Waste Not Washington Act. The act requires local governments to plan for providing recycling services. This served as the impetus for the Division to develop an implementation strategy as part of the Comprehensive Solid Waste Management Plan.



Darrington wood debris drop-off

At the same time, Snohomish County had started a pilot program of recycling domes. Seventeen sites across the county contained a series of domes in which a resident would deposit the appropriate recyclable. These sites provided opportunities to recycle mixed paper, newspaper, aluminum, tin, glass (brown, clear, green), and cardboard.



Inspecting a customer load at the Sultan Drop Box

This approach to recycling was abandoned in 2003, because by this time 90-95% of the population in Snohomish County had access to curbside recycling, which was much more convenient and cost-effective. By the end of 2003, all residents in the county had access to curbside recycling. Solid waste facilities continue to provide recycling opportunities to the general public using an updated, more efficient container system.

The Division has more recently developed additional policies and programs for specific types of recyclable commodities and organics, which will be discussed in later chapters of this document. These new programs reflect the emergence of growing markets and responses to recent legislation.

The 2013 update to the Plan focused heavily on concepts related to climate change, product stewardship, and waste prevention activities. The technical memorandum format adopted in 2013 is an effective tool to disseminate information related to specific topics or concepts and is carried over for the 2020 plan. Table 1 reviews all the of the 2013 Plan recommendations and provides a status update and notes relevant to each item.

Table 1. 2013 Plan Recommendations	Priority	Implementation Responsibility	Status	Notes
Climate Change **CC1)** Document annual SWD GHG emissions.	High	County	Ongoing	Document and report annual GHG emissions.
CC2) Evaluate energy-saving opportunities for new projects and conduct cost-benefit analysis for energy conservation measures.	High	County	Ongoing	Implemented variable speed pump improvements for aeration ponds, variable speed drives on compactors, and lighting enhancements at transfers stations and drop box sites. Assisted with development of County green building policy.
CC3) Evaluate energy-saving opportunities for existing buildings and projects, and conduct cost-benefit analysis for energy conservation measures.	Medium	County	Ongoing	Implemented variable speed pump improvements for aeration ponds and lighting enhancements (same as above).
CC4) Continue to conduct energy audits of Division facilities.	Medium	County	Ongoing	
CC5) Increase purchase of environmentally preferable facility repair and maintenance products procured by the Division.	Medium	SWD and other County departments	Ongoing	County implemented an Environmentally Preferable Purchasing and Utilization Policy.
Energy from Waste (EfW) **E1)** Continue to monitor developments and progress in EfW and if the results appear promising, choose to explore EfW in more depth.	Medium	County	Ongoing	Continuing to research EfW and how it relates to the community needs and SCC.
Product Stewardship **PS1)** Continue to pursue and develop product stewardship programs, in coordination with other public and private entities.	High	County	Partly accomplished	Supported legislation on paint stewardship program.
PS2) Conduct research into how product stewardship programs could help finance curbside and other recycling/reuse collection services.	High	County	Partly accomplished	Paint stewardship support and tour of facility for battery stewardship program.
PS3) Develop a program to encourage retailers to expand product stewardship activities.	Medium	County and service-providers	Partly accomplished	Limited work on this recommendation.
PS4) Efforts will be made to encourage siting of processing facilities for product stewardship materials in Snohomish County.	Medium	County and service-providers	Partly accomplished	Limited work on this recommendation.
PS5) Explore the possibility of creating a facility in Snohomish County to process e-wastes for reuse.	Medium	County and service-providers	Partly accomplished	Limited work on this recommendation.
PS6) The concept of a multi-material collection depot should be tested through a pilot program.	Low	County and service-providers	Not accomplished	Limited work on this recommendation.
Waste Prevention **WP1)** Promote activities such as smart shopping, the use of durable grocery bags, and buying in bulk when appropriate.	High	County and cities	Ongoing	

Table 1. 2013 Plan Recommendations	Priority	Implementation Responsibility	Status	Notes
WP2) Implement upgraded procurement policies.	High	County and cities	Completed	County implemented an Environmentally Preferable Purchasing and Utilization Policy.
WP3) Continue to target specific products for waste reduction in cooperation with manufacturers and distributors.	High	County and service-providers	Ongoing	
WP4) Conduct increased promotion of waste exchanges.	High	County	Partly accomplished	Limited work on this recommendation.
WP5) Additional measures for volume-based collection fees, including offering a 10-gallon can and every-other-week garbage collection will be evaluated.	Medium	County and service-providers	Partly accomplished	Limited work on this recommendation.
WP6) The cities, with assistance from Snohomish County, will encourage businesses to practice waste prevention measures.	Medium	County and cities	Partly accomplished	Limited work on this recommendation.
WP7) Coordinate publicity and communications to increase backyard composting practices.	Medium	County and service-providers	Partly accomplished	WSU Extension office for support of master composter and waste warrior programs.
WP8) The impacts and results of waste prevention efforts will be identified and monitored.	Medium	County	Partly accomplished	Limited work on this recommendation.
WP9) A new labeling system should be implemented to address the probable lifespan of a product and the relative annual cost for using it.	Low	County, State and Federal partners	Not accomplished	Limited work on this program, additional high cost of implementation.
Recycling **R1)** Increase focus on multi-family recycling with outreach to apartment owners and tenants.	High	County and service-providers	Ongoing	Service-providers continuing to provide outreach and education.
R2) Increase educational efforts on the contamination issues with commingled recycling systems.	High	Service-providers	Ongoing	Service-providers continuing to provide outreach and education. Worked with Washington State Association of Counties on developing a recommended recycling list to help reduce contamination.
R3) Design consistency into programs by working with neighboring jurisdictions on items such as materials collected, new programs such as disposal bans, and joint education and outreach programs.	High	County and cities	Ongoing	Worked with Washington State Association of Counties on developing a recommended recycling list to help reduce contamination.
R4) Develop alternative markets or collection systems for glass.	Medium	County	Not accomplished	Limited work on this recommendation.
R5) Consider methods for increasing the separation of recyclables for residential customers.	Medium	County	Partly accomplished	Limited work on this recommendation.
R6) Consider methods for increasing the separation of recyclables for the commercial sector.	Medium	County	Partly accomplished	Limited work on this recommendation.
R7) Consider methods for increasing C&D recycling.	Medium	County	Accomplished	

Table 1. 2013 Plan Recommendations	Priority	Implementation Responsibility	Status	Notes
R8) Work with local jurisdictions and haulers on assessing MRF performance and the effectiveness of single stream collections.	Medium	County, cities and service-providers	Partly accomplished	Worked with Washington State Association of Counties on developing a recommended recycling list to help reduce contamination.
R9) Local markets for recyclable materials will be supported by Snohomish County and their partners in the recycling program.	Medium	County	Accomplished	
R10) Consider banning the use of specific products.	Low	County	Partly accomplished	Limited work on this recommendation.
Organics **O1)** Possibly implement a transfer system for organics at Snohomish County transfer stations.	High	County	Not accomplished	Currently accept yard debris and clean wood at transfer stations.
O2) Promote the use of compost by working together with all appropriate County departments.	High	County	Not accomplished	
O3) Explore methods to encourage the diversion of additional amounts of edible food to charitable programs.	High	County and cities	Accomplished	
O4) A working group will be established to coordinate permitting activities for new and expanded composting facilities.	Medium	County, cities and service-providers	Not accomplished	
O5) The idea of changing collection schedules for organics, recyclables and garbage, to provide additional incentive to divert organics, should be further explored.	Medium	County, cities and service-providers	Not accomplished	
O6) A program will be developed to replace the "alternatives to burning" program when it expires.	Medium	County, Cities, Regional partners	Ongoing	The CPG ATB program is not active, but Snohomish County, Darrington, Hampton Lumber and Puget Sound Clean Air Agency have partnered for an ATB-like program in Darrington for 12 years.
O7) Wood waste diversion will be increased by a combination of voluntary measures and mandatory requirements.	Medium	County	Partly accomplished	Limited work on this recommendation.
O8) A regional educational program should be implemented to promote diversion of food waste and compostable paper.	Medium	County and Regional partners	Partly accomplished	Worked with service-providers on this.
Waste Collection **C1)** Provide automated access at transfer stations to commercial haulers.	High	County	Ongoing	Implemented new HID card readers for auto-processing of commercial haulers at AP and SW.
C2) Evaluate increased use of every other week residential garbage collection.	High	County and cities	Partly accomplished	Limited work on this recommendation.
C3) Consideration of mandatory collection for all areas of the County.	Medium	County	Not accomplished	Limited work on this recommendation.

Table 1. 2013 Plan Recommendations	Priority	Implementation Responsibility	Status	Notes
Waste Transfer **TS1)** Consider operating CWRTS full-time for commercial haulers to increase transfer capacity, reduce traffic, and reduce miles traveled when waste tonnages in east county warrant it.	Medium	County	Ongoing	Elevated priority. Continuing to evaluate station options.
TS2) Consider opening CWRTS full-time to both commercial and self-haulers, when waste tonnages and self-haul customer demand in the east county warrant it.	Low	County	Ongoing	Elevated priority. Conducted a feasibility study by HDR that demonstrates SWD facilities currently have the capacity to support customer demand.
TS3) Begin a siting process for a new transfer facility to meet the demands of east county growth.	Low	County	Ongoing	Elevated priority. Planning on conducting new feasibility study for expanding the Dubuque Road Drop Box site and how that might impact East County operations.
Waste Disposal **D1)** Establish policy and guidelines for appropriate uses of closed landfills.	High	County	Not accomplished	
D2) Continue enforcement of the flow control elements of the SCC.	High	County	Ongoing	Developed a robust program that is in full force.
D3) Implement disposal ban for waste such as yard debris that could be diverted from landfills.	Medium	County	Not accomplished	Limited work on this recommendation.
Outreach and Education **O&E1)** Participate in a regional effort to provide more consistent messages for solid waste programs and issues.	High	County and cities	Ongoing	
O&E2) Take the lead on messaging solid waste issues.	High	County	Ongoing	
O&E3) Make greater efforts to extend recycling outreach to a diverse audience.	High	County	Ongoing	
O&E4) Public education will be conducted primarily by service-providers and/or through contracts with third-party agents.	Medium	County and service-providers	Partly accomplished	Worked with Waste Management and Republic Services on education campaigns on waste reduction and empty clean and dry campaign.
O&E5) The Solid Waste Division will participate in a multi-agency task force to address sustainability, if such a task force is created.	Low	County	Accomplished	Limited work on this recommendation.
O&E6) Alternative funding sources for public outreach and education should be explored.	Low	County	Partly accomplished	Limited work on this recommendation.
Administration and Regulation **A&R1)** Maintain support for enforcement activities for illegal dumping and litter cleanup programs.	High	County	Ongoing	Developed a robust program that is in full force.

Table 1. 2013 Plan Recommendations	Priority	Implementation Responsibility	Status	Notes
A&R2) Encourage volunteer efforts for litter cleanup.	High	County	Ongoing	Implemented Litter Wrangler program
A&R3) Explore alternative funding sources to reduce tipping fee surcharges for waste diversion and other non-disposal programs.	High	County	Partly accomplished	Limited work on this recommendation
A&R4) Annually review programs and activities to explore program modifications that could increase the effectiveness of waste prevention, recycling, GHG reduction and other programs.	High	County	Partly accomplished	Limited work on this recommendation
A&R5) Snohomish County should continue to explore alternatives for a solid waste disposal district.	Low	County	Not accomplished	Limited work on this recommendation.
Moderate Risk Waste (MRW) **MRW1)** Conduct public education programs for HHW through collaboration with other agencies and groups.	High	SWD and other County departments	Ongoing	
MRW2) Research alternative financing methods.	High	SWD	Partly accomplished	Developed fee-based paint recycling program.
MRW3) Implement additional product stewardship programs through voluntary and mandatory methods.	High	SWD and Ecology	Ongoing	Now collecting latex paint for a fee.
MRW4) Collect materials shown in Table 1 (the Haz. Household Substances List) at the MRW Facility, except e-waste and materials shown in Group 7.	High	SWD	Ongoing	
MRW5) Distribute CESQG standards and requirements more widely.	High	SWD and SHD	Ongoing	SHD is taking lead.
MRW6) Explore user fees for residential customers of the MRW Facility and mobile collection events.	High	SWD	Ongoing	Currently a fee for latex paint recycling.
MRW7) Implement a promotional campaign to address barriers that are preventing greater use of the MRW Facility.	High	SWD	Partly accomplished	Held two mobile collection events in southern part of county.
MRW8) Implement an environmentally preferable purchasing program to reduce use of toxic materials by County agencies.	High	SWD and other County departments	Accomplished	County implemented an Environmentally Preferable Purchasing and Utilization Policy.
MRW9) Conduct a survey to determine waste disposal practices for key MRW materials.	High	SWD	Not accomplished	
MRW10) Development of sector-specific business educational materials should be handled at the state level with distribution provided at the state and local level.	Medium	State	Not accomplished	
MRW11) An Envirostars or similar program will be resumed to provide recognition to businesses that are properly managing their wastes.	Medium	County	Accomplished	The County worked with Envirostars but determined that the program didn't meet the needs of SWD or the County. No longer participating in the program.
MRW12) A labeling program will be implemented in cooperation with retail outlets to highlight less-toxic products and to mark products that need to be disposed at the MRW Facility.	Medium	County, State, Federal and regional partners	Not accomplished	

VISION FOR THE FUTURE

The vision for this update of the Snohomish County Solid Waste Management Plan is to continue moving toward a more sustainable future that is in line with other county and regional goals and policies. The Division anticipates that in the future, citizens will be generating less waste and handling the wastes they do generate differently than in the past. This will happen through alternative methods such as increased waste prevention, recycling, and outreach/education programs. It is not expected that this movement or shift will happen quickly or that it will be a path that replaces the current solid waste system. New approaches to waste management and new technologies must respect and build upon the previous work and programs that have been put in place and that have served the county and its citizens well for decades. The Solid Waste Division understands and respects that ultimately, it is up to the individual to decide what and how to consume, and will strive to provide a variety of environmentally and socially responsible disposal options that further the goals and policies of the County and the Puget Sound Region.

This vision is the underlying concept for the two major goals of this Plan:

GOAL I: Support actions to reduce climate change and promote sustainability.
GOAL II: Ensure efficient services for a growing and changing customer base.

These goals are reflected in the policies and related technical memorandums that are used in this Plan to consider additional programs and recommendations for enhancements to the solid waste system. These policies are shown below and are used in the technical memorandums.



Train on its way to the Roosevelt Landfill



Assorted recycling bins at SWRTS

GOAL I: SUPPORT ACTIONS TO REDUCE CLIMATE CHANGE AND PROMOTE SUSTAINABILITY

Policies

The following policies are adopted in this Plan to reduce climate change and promote sustainability.

- Policy 1-1, Climate Change – Support efforts and actions by County and other agencies to reduce GHG emissions and to lessen and prepare for the impacts of climate change.
- Policy 1-2, Energy-from-Waste – Continue to monitor new and existing technologies for potential benefits to Snohomish County.
- Policy 1-3, Waste Prevention – Continue to offer and develop programs that encourage waste prevention.

Recommendations

The following recommendations are proposed in this Plan to reduce climate change and promote sustainability.

Climate Change

CC1) Continue to participate in County climate change initiatives.
CC2) Evaluate and study life cycle related issues.
CC3) When conducting operational improvements at Division facilities, evaluate potential energy-saving opportunities.

Energy from Waste

E1) The County should continue to monitor developments and progress in EfW including new technologies, pilot projects, facility procurements and operating track records, and other projects in the region.

Waste Prevention

WP1) Increased use of social media and promotion of waste exchanges will be conducted.
WP2) Snohomish County will coordinate and collaborate with WACSWM on product stewardship and waste prevention measures.
WP3) The impacts and results of waste prevention efforts will be identified and monitored.

GOAL II: ENSURE EFFICIENT SERVICES FOR A GROWING AND CHANGING CUSTOMER BASE

Policies

The following policies are adopted in this Plan to ensure efficient services for a growing and changing customer base.

- **Policy 2-1, Recycling** – Continue to offer and develop programs that encourage recycling.
- **Policy 2-2, Organics** – Continue to promote and expand the collection and non-landfilling of yard debris, wood waste, and food waste.
- **Policy 2-3, Waste Collection** – Provide a variety of equitable and efficient collection services to County residents and businesses that are in line with the Division's other goals and policies.
- **Policy 2-4, Waste Transfer** – Provide a variety of equitable and efficient waste transfer services to County residents and businesses that are in line with the Division's other goals and policies.
- **Policy 2-5, Waste Disposal** – Continue to evaluate and monitor waste disposal options and services that meet customer needs and are in line with other goals and policies of the Solid Waste Comprehensive Plan.
- **Policy 2-6, Outreach and Education** – Meet required educational components mandated by the State of Washington.
- **Policy 2-7, Administration and Regulation** – Ensure that administrative services and regulatory activities provide adequate support for policies and programs undertaken by the Division.
- **Policy 2-8, Moderate Risk Waste** – Continue efforts to reduce the generation and toxicity of moderate risk waste, and to ensure that convenient, cost effective and sustainable options for its safe management are available.

Recommendations

The following recommendations are proposed in this Plan to ensure efficient services for a growing and changing customer base.

Recycling

R1) Collaborate and coordinate with WACSWM and other regional partners/jurisdictions on the standardization, simplification and implementation of core recycling principles and programs.

R2) Implement expanded education campaigns related to recycling issues.

R3) Evaluate the impacts and possible implementation of a user-pay system for recyclables collected at Snohomish County solid waste facilities.

R4) Promote SWAC benefits and involvement to area recyclers.

Organics

O1) The County should participate in a regional effort to provide consistent messages for organics related initiatives.

O2) Organics program priorities need to be defined.
O3) Partner with the WSU Extension Service and revenue sharing agreement partners (if the funding exists) to provide education services that align with Division priorities.

Waste Collection

C1) Strategize and collaborate with G-certificated haulers on how to increase curbside collection participation.
C2) Engage SWAC for waste collection issues.

Waste Transfer

T1) Upgrade the Dubuque Road DB to meet the demands of capacity and population growth in central Snohomish County.
T2) Expand Intermodal Yard if additional capacity is needed there.
T3) Evaluate the use and operation of the vactor decant facility.

Waste Disposal

D1) Establish policies and guidelines for appropriate uses of closed landfills.
D2) Continue enforcement of the flow control elements of the revised County Code.

Outreach and Education

O&E1) Snohomish County should participate in a regional effort to provide more consistent messages for solid waste programs and issues.
O&E2) Greater efforts will be made to extend recycling outreach to a diverse audience.
O&E3) Continue partnership with the WSU Extension Service to provide educational services to Snohomish County that align with Division priorities.
O&E4) Alternative funding sources for public outreach and education should be explored.
O&E5) Division staff should define educational program priorities.

Administration and Regulation

A&R1) Snohomish County SWD should implement division-wide continuous improvement projects and report back to SWAC on implemented improvements or operational changes.
A&R2) Snohomish County SWD should review programs and activities annually to explore program modifications that could increase the effectiveness of waste prevention, recycling, greenhouse gas reduction and other programs.
A&R3) Snohomish County SWD will collaborate and coordinate program endeavors with regional partners to increase standardization and improve responses to solid waste issues.
A&R4) Snohomish County SWD will review existing county code, how it relates to current endeavors, and suggest/implement appropriate changes to align with Division programs.

A&R5) Snohomish County SWD will work with the cities to renew the Interlocal Agreement for solid waste management.

Moderate Risk Waste (MRW)

MRW1) Public education programs for household hazardous wastes will be conducted through collaboration with other agencies and groups.

MRW2) Implement MRW oriented continuous improvement projects and report back to SWAC on implemented improvements or operational changes.

MRW3) Explore user fees for residential customers of the MRW Facility and mobile collection events.

MRW4) A promotional campaign will be implemented to identify and address barriers that are preventing greater usage of the MRW Facility.

MRW5) Engage in regional and statewide coordination and collaboration efforts.

MRW6) Continue partnership with the WSU Extension Service to provide educational services specific to the MRW facility and HHW.

MRW7) Review and update the MRW Facility's O&M manual to align with current programs and equipment standards and practices.

NEXT STEPS

Implementation Plan

The next step for the Snohomish County Solid Waste Division is to implement the recommendations of this Plan. Table 2 lists all of the Plan recommendations, identifies the implementing organization and the estimated year(s) of execution. More information and discussion on all of the recommendations can be found in the individual technical memorandums.



Assisting customers at the MRW facility



ECUP trailer loaded with abandoned vehicles

Table 2. Six-Year Implementation Schedule							
Recommendation	Implementation Responsibility	Year of Implementation					
		2021	2022	2023	2024	2025	2026
Climate Change CC1) Continue to participate in County climate change initiatives.	County	X	X	X	X	X	X
CC2) Evaluate and study life cycle related issues.	County				X	X	X
CC3) When conducting operational improvements at Division facilities, evaluate potential energy-saving opportunities.	County	Ongoing					
Energy from Waste E1) The County should continue to monitor developments and progress in EfW including new technologies, pilot projects, facility procurements and operating track records, and other projects in the region.	County	Ongoing					
Waste Prevention WP1) Increased use of social media and promotion of waste exchanges will be conducted.	County and Service-Providers	Ongoing					
WP2) Snohomish County will coordinate and collaborate with WACSWM on product stewardship and waste prevention measures.	County	Ongoing					
WP3) The impacts and results of waste prevention efforts will be identified and monitored.	County and Service-Providers	X	X	X	X	X	X
Recycling R1) Collaborate and coordinate with WACSWM and other regional partners/jurisdictions on the standardization, simplification and implementation of core recycling principles and programs.	County and Cities	Ongoing					

Table 2. Six-Year Implementation Schedule								
Recommendation	Implementation Responsibility	Year of Implementation						
		2021	2022	2023	2024	2025	2026	
R2) Implement expanded education campaigns related to recycling issues.	Service-Providers	Ongoing						
R3) Evaluate the impacts and possible implementation of a user-pay system for recyclables collected at Snohomish County solid waste facilities.	County				X	X		
R4) Promote SWAC benefits and involvement to area recyclers.	County and Service Providers	X	X	X	X	X	X	
Organics O1) The County should participate in a regional effort to provide consistent messages for organics related initiatives.	County and Service-Providers	Ongoing						
O2) Organics program priorities need to be defined.	County	X	X	X	X	X	X	
O3) Partner with the WSU Extension Service and revenue sharing agreement partners (if the funding exists) to provide education services that align with Division priorities.	County	Ongoing						
Waste Collection C1) Strategize and collaborate with G-certificated haulers on how to increase curbside collection participation.	County and Service-Providers			X	X			
C2) Engage SWAC for waste collection issues.	County	Ongoing						

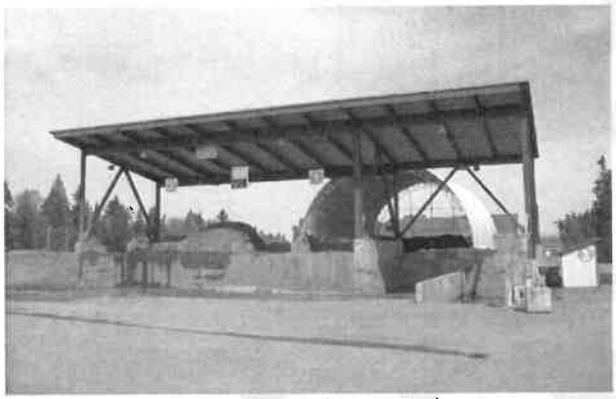
Table 2. Six-Year Implementation Schedule								
Recommendation	Implementation Responsibility	Year of Implementation						
		2021	2022	2023	2024	2025	2026	
Waste Transfer T1) Upgrade the Dubuque Road DB to meet the demands of capacity and population growth in central Snohomish County.	County	Ongoing						
T2) Expand Intermodal Yard if additional capacity is needed there.	County						X	
T3) Evaluate the use and operation of the vactor decant facility.	County	Ongoing						
Waste Disposal D1) Establish policies and guidelines for appropriate uses of closed landfills.	County					X	X	
D2) Continue enforcement of the flow control elements of the revised County Code.	County	Ongoing						
Outreach and Education O&E1) Snohomish County should participate in a regional effort to provide more consistent messages for solid waste programs and issues.	County and Cities	Ongoing						
O&E2) Greater efforts will be made to extend recycling outreach to a diverse audience.	County and Service Providers	Ongoing						
O&E3) Continue partnership with the WSU Extension Service to provide educational services to Snohomish County that align with Division priorities.	County	Ongoing						
O&E4) Alternative funding sources for public outreach and education should be explored.	County	Ongoing						

Table 2. Six-Year Implementation Schedule							
Recommendation	Implementation Responsibility	Year of Implementation					
		2021	2022	2023	2024	2025	2026
O&E5) Division staff should define educational program priorities.	County		X	X			
Administration and Regulation A&R1) Snohomish County SWD should implement division-wide continuous improvement projects and report back to SWAC on implemented improvements or operational changes.	County	Ongoing					
A&R2) Snohomish County SWD should review programs and activities annually to explore program modifications that could increase the effectiveness of waste prevention, recycling, greenhouse gas reduction and other programs.	County	X	X	X	X	X	X
A&R3) Snohomish County SWD will collaborate and coordinate program endeavors with regional partners to increase standardization and improve responses to solid waste issues.	County	Ongoing					
A&R4) Snohomish County SWD will review existing county code, how it relates to current endeavors, and suggest/implement appropriate changes to align with Division programs.	County	X	X				
A&R5) Snohomish County SWD will work with the cities to renew the Interlocal Agreement for solid waste management.	County and Cities	X	X	X			
Moderate Risk Waste (MRW) MRW1) Public education programs for household hazardous wastes will be conducted through collaboration with other agencies and groups.	County	Ongoing					

Table 2. Six-Year Implementation Schedule								
Recommendation	Implementation Responsibility	Year of Implementation						
		2021	2022	2023	2024	2025	2026	
MRW2) Implement MRW oriented continuous improvement projects and report back to SWAC on implemented improvements or operational changes.	County	Ongoing						
MRW3) Explore user fees for residential customers of the MRW Facility and mobile collection events.	County		X	X				
MRW4) A promotional campaign will be implemented to identify and address barriers that are preventing greater usage of the MRW Facility.	County				X	X		
MRW5) Engage in regional and statewide coordination and collaboration efforts.	County	Ongoing						
MRW6) Continue partnership with the WSU Extension Service to provide educational services specific to the MRW facility and HHW.	County	Ongoing						
MRW7) Review and update the MRW Facility's O&M manual to align with current programs and equipment standards and practices.	County	Ongoing						



New electric yard goat at ARTS



Vactor Decant Waste Facility at Cathcart

Each year during the annual budget process, work plans will be prepared by the Solid Waste Division that describe the recommended programs and actions to be implemented in the upcoming fiscal year for County Council consideration. The work plans will include the estimated staff resources, budget required, and any rate impacts for implementation and the projected results.

Further efforts to plan for realistic implementation of Plan recommendations and to track progress will include an annual report prepared by the Solid Waste Division and presented to the County Council. This annual report will include the following:

- Prior year's goals and accomplishments
- Quantitative / measurable results
- Upcoming year's goals and expected results
- Recommendations for any Plan updates or modifications over the next 5 years

Six-Year Capital Acquisition Plan

Chapter 70A.205 RCW requires the Plan to project the anticipated cost of solid waste construction and capital acquisition programs for a six-year period. The Division's capital programs are focused primarily on facility repair and maintenance projects and the purchase of a few additional pieces of equipment. Table 3 outlines the significant anticipated capital acquisitions and improvements for the next six years.

Table 3. Six-Year Capital Acquisition Plan								
Project or Acquisition	Estimated Cost	Notes	Year of Implementation					
			2021	2022	2023	2024	2025	2026
Sisco Landfill Closure	$ 5,000,000	As part of a settlement agreement, the County will use restricted third-party funds to pay for closure of the Sisco Landfill in accordance with state and local regulations. Design and permitting began in 2017. Permitting will continue through 2020 with construction beginning in 2022.	Ongoing					
Scale Automation Software Upgrade	$ 200,000	The Division will proceed with a Request for Proposals (RFP) and acquisition of a new scale software system in 2022. The existing system, servicing all Division facilities, has been in operation for over 30 years. The system has been stable and reliable: however, many of the programing and report functions are no longer compatible with current IT systems and computer processing technology. Upgrading the software system would be a benefit to both the Division and its customers.	X	X	X	X		
Drop Box Improvements	$ 6,000,000	The Division's aging rural drop box sites need repair. Such repairs include maintenance of site retaining walls and parking lot surface treatments. Additionally, with continued development in the eastern part of the County, the Division will develop plans to address the solid waste needs in this part of the County.	X	X	X	X	X	X
North County Recycling and Transfer Station (NCRTS) Compactor Replacement	$ 2,000,000	One of the compactors at NCRTS has reached the end of its useful life and needs to be replaced. The Division will work with the selected vendor to ensure replacement of the compactor will have minimal interruption in service to customers at the NCRTS facility.	X					

Table 3. Six-Year Capital Acquisition Plan								
Project or Acquisition	Estimated Cost	Notes	Year of Implementation					
			2021	2022	2023	2024	2025	2026
Supervisory Control and Data Acquisition (SCADA) Modernization	$ 500,000	The present technology used to remotely monitor and control system for management of closed landfills and transfer stations is dated and experiencing failures. These systems require an update to ensure compliance with state and local regulatory agencies.	Ongoing					
Airport Road Recycling and Transfer Station (ARTS) Scale Replacement	$ 2,000,000	The ARTS scales have been in service since 2003 and are used for commerce (fee based on weight). They are at the end of their useful life and require replacement. Scales will be replaced sequentially to maintain normal operations during this project.	X	X	X			
Southwest Recycling and Transfer Station (SWRTS) Pavement Resurfacing	$ 250,000	The trailer parking lot at the SWRTS has been in operation since 2003, with minimal repairs and maintenance. With the volume of truck traffic and trailer movement in this area it is now showing signs of wear that include "alligator" cracking and patched areas and needs to be replaced.	X					
Contingency funding	$ 350,000	Funding to support repairs for unanticipated equipment failures.	X	X	X	X	X	X

Only one recommendation being made in this Plan leads to "construction and capital acquisition" costs. The Transfer (T1) recommendation for drop box improvements in East County is more conceptual at this point and not defined well enough to identify specific capital costs for this endeavor. This and other capital costs will be funded by tipping fees.

Twenty-Year Implementation Program

Solid waste management in Snohomish County will continue to evolve based on changes in population, demographics, the local, state, and national economy, regulations, and advancements in waste handling and recycling systems. Because this Plan is being developed during a pandemic and is still under the influence of international market and recycling uncertainties, it is particularly difficult to project waste generation and the resultant need for additional facilities and programs. It must be recognized that some amount of flexibility will be needed to see Snohomish County and their partners through the next few years and into the next twenty years.

Procedures for Amending the Plan

This Plan is meant to be dynamic. It is not intended that the Plan sit for the next five years, and then to be totally revised. While the Plan's mission and goals are expected to remain the same, the Plan is designed upon the assumption that information will be updated gradually, and the action plan will be altered appropriately in a timely manner.

The mechanism to facilitate modifications and revisions has the following goals:

- For minor modifications, which are modifications that do not affect the basic goals or direction of the Plan, allow the plan to be modified relatively easily when circumstances require change.
- Allow the Solid Waste Advisory Committee (SWAC) to maintain its role as advisory to the Solid Waste Division and the County Council as defined in bylaws, County code, and state legislation.
- Allow cities and towns to maintain their desired level of control over Plan modification.
- Keep all players involved to ensure that there is political dialogue for minor Plan modifications and consensus for major modifications.

The following steps will be used to revise and modify this Plan:

1) This Plan anticipates that the activities in the Six-Year Implementation Schedule (see Table 2) will be undertaken, but that, as circumstances change, it may be beneficial to deviate from the planned activities in order to better achieve one or more of the Plan's goals. Deviating from one or more activities in the Six-Year Implementation Schedule is defined as a minor plan revision, and in such cases the County will:
    a) explain in writing how the deviation will better contribute to accomplishing one or more of the Plan's goals;
    b) notify all cities and towns;

c) notify and give the public an opportunity to comment, either prior to, or at a regular SWAC meeting;
d) notify Ecology of the proposed modification;
e) discuss the issue with SWAC; and
f) schedule a County Council vote on the modification no less than 60 days after the public, cities and towns, and SWAC have been notified. It is expected that the 60-day period will be used by SWAC members and the public to notify their respective cities and towns or interest groups of the proposed modification, and for opinions concerning the modification to be conveyed to the County Council.

2) Decisions to either undertake actions outside the Six-Year Implementation Schedule or that alter the Plan's Vision, major goals, or policies, will be defined as major plan revisions. In such instances a full approval process will be required.

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

TECHNICAL MEMORANDUMS

Climate Change and Sustainability

Waste Prevention

Recycling

Organics

Waste Collection

Transfer

Disposal

Energy from Waste

Outreach and Education

Administration and Regulation

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CLIMATE CHANGE AND SUSTAINABILITY

SUMMARY

This technical memorandum discusses the existing programs that Snohomish County and the Solid Waste Division are using to reduce greenhouse gas emissions. It also identifies relevant planning issues and evaluates alternative strategies. The evaluation of alternatives is based on a qualitative assessment by Solid Waste Division staff, County Solid Waste Advisory Committee members and the Plan's consultants based on professional knowledge and experience in other jurisdictions.

This technical memorandum recommends that the Division participate in ongoing County climate change and sustainability initiatives, and look for ways to further improve programs and facilities.

BACKGROUND

The primary role of the Solid Waste Division (the Division) is to ensure the environmentally sound and cost-effective management of solid waste produced within Snohomish County. To accomplish this, the Division implements policies and programs that impact the environmental health of the region. These policies and programs should be based on ecologically sound principles that reflect the values of county residents and that preserve their quality of life.

Because of the public's concern about the impacts of global warming on environmental and human health, government bodies including Snohomish County, some communities within the county, and the State of Washington have adopted policies to reduce their emissions of greenhouse gasses (GHG) that would otherwise contribute to climate change and global warming.

Solid waste management can play a key role in executing the County's policies and programs to reduce GHG emissions and promote sustainability.

Goals for Climate Change

Snohomish County is committed to environmental protection, conserving resources and reducing GHG emissions. Current government endeavors include the Sustainable Operations Action Plan (SOAP), developing a new Green and High Performance Building policy and a new Green Fleet policy. In the Solid Waste Division, this will be accomplished by maintaining and expanding current programs, as well as by establishing new programs and partnerships throughout the county.

Goals and policies that are specific to climate change include:

- Goal 1: Support actions to reduce climate change and promote sustainability.
- Policy 1-1, Climate Change: Support efforts and actions by County and other agencies to reduce GHG emissions and to lessen and prepare for the impacts of climate change.
- Related policies from other technical memorandums:
  - Policy 1-2, Energy from Waste: Continue to monitor new and existing technologies for potential benefits to Snohomish County.
  - Policy 1-3, Waste Prevention: Continue to offer and develop programs that encourage waste prevention.
  - Policy 2-1, Recycling: Continue to offer and develop programs that encourage recycling.

EXISTING PROGRAMS AND ACTIVITIES

County Climate Change Initiatives

Snohomish County opened an Office of Energy and Sustainability in 2010 to help lead and manage environmental conservation efforts, including climate change mitigation, adaptation and resiliency, for government operations and the community. In the last ten years, the County has made big strides in these areas, however there is much more work to do to address the urgency of climate change.

In February 2019, the County Council and Executive Somers issued Joint Resolution 19-006 committing the County to achieving 100% clean energy in County operations by 2045. JR 19-006 outlines several key action items such as requiring all new County facilities to achieve LEED Gold Certification, establishing a dedicated energy efficiency fund in the annual budget, and plan to transition County operations off of fossil fuels.

Additionally, in 2019 the County launched a new Climate Action Advisory Committee that will provide guidance on the County's 2020 Sustainable Operations Action Plan (SOAP), and a new community climate action and environmental stewardship plan. Both the 2020 SOAP and subsequent countywide climate action plan will address strategies for climate change mitigation (i.e., reducing GHGs) and climate adaptation and resiliency (i.e., preparing for the impacts of climate change).

Some key accomplishments of the Office of Sustainability include:

- The County is on-track to meet its 20% greenhouse gas emissions reduction goal by 2020 for government operations.
- 24 new electric vehicle charging stalls were installed at various County facilities.

- The County's Energy Smart Loan Program assisted over 1,400 customers make their homes more energy efficient and comfortable; saving enough energy to power over 267 homes for a year and providing more than $17 million in work for local contractors.
- The County's Savvy Septic Program assisted more than 630 homeowners with a rebate, low-income grant, or low interest loan to repair, replace, or conduct maintenance on their septic systems.
- The County is a founding member of the new regional Puget Sound Climate Preparedness Collaborative to better address climate change preparedness and resiliency.
- The Public Works Department piloted new software to better plan and prepare for climate change impacts across a diverse portfolio of road, bridge, and other infrastructure projects.
- The County's Zero Waste Fair initiative has reduced the total waste from the Evergreen State Fair by about 45% (or about 50 tons) annually since it started in 2014. Approximately 350,000 people attend the twelve day Fair each year, generating about 120 tons of waste.

More information can be found on the County's website for the Office of Energy and Sustainability, at https://snohomishcountywa.gov/2596/Plans-Policies-Reports.

In addition to the County-wide programs, the Division continues to develop and offer programs that encourage the reuse and recycling of materials by its citizens and businesses. The Division continually reviews its own operations, programs, and facilities to ensure that its actions promote sustainability and help to reduce climate change. Solid Waste staff also participate on the Green Building and Green Fleet project teams.

County Biodiesel Initiative

Snohomish County adopted an initial goal of reducing community GHG emissions by 20% below 2000 levels by the year 2020. In 2005, County Fleet Management committed to burning cleaner fuels in its diesel vehicles. The first step was to switch to biodiesel B-20 (20% from non-petroleum feedstock) in road maintenance trucks, solid waste trucks and off-road vehicles. Since that time, the entire County diesel fleet has been converted to run on biodiesel. The blend of biodiesel varies with seasonal temperature fluctuations to prevent thickening ("gelling") of the fuel.

Alternatives to (Backyard) Burning

The goal of the alternatives to burning program is to develop infrastructure that is financially sustainable and that will provide alternatives to backyard burning of residential yard and woody debris in the Town of Darrington. The Town, Puget Sound Clean Air Agency, Hampton Lumber and Snohomish County Solid Waste have worked collaboratively for the last 12 years to offer a free "alternative to burning" (ATB) program to valley and town residents, which includes wood waste recycling at the Hampton log

yard and yard debris recycling at the Darrington airport. Collectively the program has diverted over 20,000 cubic yards of wood and yard debris (see the Organics technical memo for more details).

Burning a ton of wood waste (hog fuel) in a boiler to make steam produces roughly the same amount of CO2 as backyard burning a ton of wood waste. There is, however, a significant benefit in that the hog fuel replaces fossil fuel (e.g. oil or natural gas) that would otherwise have been burned to generate the steam. In turn, this avoids introducing ancient, fossil-source CO2 into the atmosphere. In addition, burning wood at a central facility with an air pollution control permit will produce fewer other emissions than numerous small backyard burners without emission controls spread over a wide geographic area.

Solid Waste Division Facilities

The Division owns and operates four transfer stations, three drop box sites, one Moderate Risk Waste (MRW) Facility, and the vactor decant facility. These facilities provide an opportunity to share environmental information with the public and to demonstrate programs aimed at sustainability and GHG reduction.

The Division is constantly looking for ways to make energy efficient improvements at their facilities. In 2010, the Division began energy efficiency improvement upgrades to the leachate pretreatment facility at Cathcart, the Airport Way Recycling and Transfer Station (ARTS), and the Southwest Recycling and Transfer Station (SWRTS). These improvements include lighting upgrades to more efficient fluorescents as well as improving the energy efficiency of the aerators used to operate the lagoons. It is estimated these improvements will save approximately 800,000 kilowatt hours per year.

Most recently, in 2020, the Division installed a new heating and cooling system at the leachate pretreatment facility that serves the closed Cathcart landfill on the Cathcart Way Operations Center campus. The new air handler system is estimated to save approximately 13,935 kWh/year and an annual savings of $1,184.

In November 2020, the Division replaced two aging MSW compactors at the Southwest Recycling and Transfer Station (SWRTS). The two compactors in service since 2003 were replaced with new variable speed drive (VSD) devices. In 2013, Seattle City Light conducted an energy audit of trash compactors with VSD. The tonnage estimations and compactor types that were evaluated by the City are quite similar to the existing SWRTS machines. By comparing the old compactor technology against VSD compactors, the City estimated the energy savings would be approximately 194,336 kWh/year (Seattle Public Utilities 2013). The estimates used at the City of Seattle South Transfer Station reflect processing about 40,000 tons more per year than SWRTS, but still provide a useful estimate as to the potential energy savings of compactors utilizing variable drives.

One of the compactors at the North County Recycling and Transfer station is scheduled to be replaced in 2021 with the same model as SWRTS.

Solid Waste Division Operations

While facilities can have features that promote sustainability, so can selected operational practices. The items below highlight some of the more prominent activities the Division has undertaken:

- The Division is currently utilizing a variety of electric vehicles for operations, including electric forklifts and yard goats. County Fleet is also evaluating the use of electric backhoes and loaders for solid waste operations. The MRW facility is scheduled to replace a current box truck with an electric version in 2021.

- Snohomish County currently rail-hauls its MSW to the Roosevelt Regional Landfill near the town of Roosevelt in Klickitat County. Shipping waste by rail uses less fuel per ton-mile than trucking and emits fewer GHG per ton. In addition, the Regional Landfill collects the methane produced by the decomposing garbage and this gas is sold to Puget Sound Energy as renewable natural gas.

- The Division has utilized GPS on its short-haul and roll-off trucks to ensure efficient routes and reduced idling since 2007.

PLANNING ISSUES

Near-Term Planning Issues

Current issues related to climate change include:

- Solid waste haulers do not pick up materials from every house or commercial entity that they pass on their routes. If collection were mandatory, residents would no longer self-haul waste and recyclables to a transfer station. GHG emissions would be drastically reduced, as a single garbage truck could replace over sixteen pickup trucks. Increased curbside collection is addressed in more detail in the Waste Collection Technical Memo.

- There is a need for better goals and metrics for monitoring County impacts related to climate change.

- Continuing to collaborate with County Departments on climate change and sustainability initiatives will lead to more effective programs and results.

- Current Division facilities have room for improvement in regard to greenhouse gas emissions and sustainability. The Division will continue to evaluate facility maintenance, upgrades and retrofits that stress sustainability and reduce GHG emissions. This includes purchasing and/or incorporating recycled or sustainably produced construction materials into facility repairs or improvements consistent with other Division and Snohomish County environmentally preferable purchasing policies and practices.

Long-Term Planning Issues

- The Solid Waste Division is interested in understanding the impacts of life cycle assessment (the compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle) and the differences between product development versus production could greatly influence and impact local GHG production for Snohomish County residents.

ALTERNATIVES

Alternative A – Collaborate with County Climate Change Initiatives

The Office of Energy and Sustainability leads many climate change initiatives throughout the County. The Solid Waste Division could continue to work with them to support and provide expertise for climate change endeavors.

Alternative B – Conduct Product Life Cycle Assessments and Evaluate their Impacts on Snohomish County

The Division could investigate the principles of life cycle assessment and product development/disposal as it relates to climate change and GHG initiatives in Snohomish County.

Alternative C – Evaluate Energy-Saving Opportunities

As new projects are developed, specific energy-saving opportunities could be identified and evaluated using a cost-benefit analysis, including evaluating the trade-offs between energy savings and other environmental or social costs.

RECOMMENDATIONS

The following recommendations are being made for climate change programs:

CC1) Continue to participate in County climate change initiatives.

CC2) Evaluate and study life cycle related issues.

CC3) When conducting operational improvements at Division facilities, evaluate potential energy-saving opportunities.

Snohomish County Solid Waste Division would be in a supporting role for Recommendation CC1. Evaluating product life cycle could be a local or regional effort. The Division would be the lead agency for Recommendation CC3.

The above recommendations could require a substantial amount of staff time. All of these recommendations can be implemented beginning immediately or in the next few years.

REFERENCES

Seattle Public Utilities 2013. *Trash Compactors with Variable Speed Drives*. Prepared by Seattle City Light, November 2013.

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WASTE PREVENTION

SUMMARY

Waste prevention is an important aspect of resource management because not creating waste preserves the intrinsic value of manufactured and natural products, avoids the need for collection and processing of materials that would otherwise be treated as recyclables or wastes. For these and other reasons, it is the highest priority activity in the waste management hierarchy.

The recommendations made in this technical memo address the need to conduct more social media oriented waste prevention measures, collaborate with regional partners to advance waste prevention measures and to develop methods to monitor the results of waste prevention efforts.

BACKGROUND

A clear definition for "waste prevention" has not been adopted in Washington State. There is a definition for "waste reduction," which is defined to include activities and programs that reduce the amount of waste generated and also activities and programs that reduce the toxicity of wastes that are generated. The term "waste prevention" is used here to allow a focus on solid wastes. Programs addressing toxic wastes are described in the Moderate Risk Waste plan (see Appendix B).

Effective waste prevention requires a new way of thinking about how we consume and discard items. Waste prevention is the least expensive way of handling materials that would otherwise become garbage. The potential savings from waste prevention exist everywhere along the production chain from not using resources to produce, ship, package, and discard materials.

Goals and Policies for Waste Prevention

Goals and policies specific to waste prevention include:

- Goal 1: Support actions to reduce climate change and promote sustainability.
- Policy 1-3, Waste Prevention: Continue to offer and develop programs that encourage waste prevention.
- Related policies from other technical memorandums include:
    - Policy 1-1, Climate Change: Support efforts and actions by County and other agencies to reduce GHG emissions and to lessen and prepare for the impacts of climate change.

- Policy 2-2, Organics: Continue to promote and expand the collection and non-landfilling of yard debris, wood waste, and food waste.
- Policy 2-8, Moderate Risk Waste: Continue efforts to reduce the generation and toxicity of moderate risk waste and to ensure that convenient, cost effective and sustainable options for its safe management are available.

Regulations for Waste Prevention

Washington State's goal of 50% recycling, composting and waste reduction must be addressed in solid waste plans, but each county is expected to set their own goal based on local conditions and constraints.

Waste reduction has the highest priority according to the waste management hierarchy established by State law (RCW 70A.205.005 (8)).

EXISTING PROGRAMS AND ACTIVITIES

Overview of General Waste Prevention Methods

Reduce: There are many ways of keeping a product or material from becoming a waste. The following list hints at the range of options in this area:

- repair services
- on-demand manufacturing
- manufacturing practices that avoid waste
- office practices such double-sided printing and use of email

Reuse: There is a significant amount of activity in the area of reusing products. This occurs through non-monetary methods (gifts, donations, "hand-me-downs," etc.), a wide variety of personal and commercial retail activities, and also through services that clean, repair or rent various products. The following list provides examples of these activities:

- refilling services (such as printer cartridges)
- rental shops
- secondhand stores, bookstores and consignment shops
- person-to-person transfers (sales or gifts)
- internet auction websites (e-Bay and others)
- garage sales, want ads and swap meets
- antique and thrift stores
- pawn shops
- clothing and food banks
- material exchanges
- linen and diaper cleaning services
- some pack-and-ship stores accept clean Styrofoam peanuts for reuse
- used car, truck and boat dealers, including auto wrecking and used parts dealers

Waste Prevention Methods Used in Snohomish County

More specific examples of how these are occurring in Snohomish County are discussed below.

Repair Cafes: The WSU Extension services hosts Repair Cafes that have been very well attended. The Repair Cafes are free. Participants bring broken items and WSU volunteers bring their skills to help fix the items. They also teach participants how to fix their own items. Activities include small appliance repair, bicycle maintenance, sewing, leatherworking and more. Snohomish County WSU Extension Education Center, in cooperation with bike shops and textiles advisers, scheduled six repair cafes in 2020, although the Covid-19 pandemic will likely reduce the number of actual events.

Sustainable Stewards: The Division presented a class, in coordination with the WSU Extension service, to Sustainable Steward volunteers. The class focused on not buying what doesn't give value, eliminating excess consumption and thoughtful purchasing. This message was presented to the volunteers who are dedicated to making their lives more "green" and could be offered to a wider audience.

Computer Reuse: Working computer equipment can often be reused. This is better for the environment and, in addition, provides social benefits. Reused computers help close the "digital divide" by making equipment available at low cost or free to those with lower incomes, youth, non-profit organizations and aide programs. A number of E-cycle Washington collectors are engaged in computer reuse activities.

Redistribution of Food: There are a large number of non-profit food banks and hot meal programs in Snohomish County. These programs distribute food and meals to the food insecure. They rely on donated food, as well as purchasing food and supplies. Volunteers of America coordinates many of the donations to food banks and the Everett Hot Meals Coalition coordinates donation of highly perishable but still edible food. Both these organizations serve as a coordination point for the redistribution of food that would otherwise be landfilled or composted. See the Organics tech memo for more details.

Product Substitution: Examples of product substitution that lead to waste prevention include water bottles and refill stations, durable coffee cups, and reusable shopping bags. Reusable shopping bags are expected to become more common throughout Washington due to the recent statewide ban on single-use plastic bags.

On-Site Resource Management: This includes backyard composting (the composting of yard debris on the property where it was generated), which is typically defined as a waste prevention measure because it avoids treating yard debris as a waste. The County provides educational materials for on-site composting, and works with WSU Extension who trains Master Gardeners to encourage these types of practices.

In an industrial setting, raw materials or products are often reclaimed from floor sweepings or other activities. Again, this avoids treating materials as a waste. Another example in the industrial sector is the use of solvent stills that reclaim solvents.

Several examples of on-site management exist in the construction industry, one of the largest activities being on-site grinding and reuse of concrete and asphalt on that site.

Manufacturing and Packaging: "Lightweighting" of plastic and glass bottles and aluminum cans has been occurring for several years. Products themselves are being made lighter through the use of composite materials (for products such as planes and cars). Product stewardship approaches (as well as economic and corporate green initiatives) can drive waste prevention activities, including eliminating unneeded packaging, toxics and materials; uniformity of standard parts (such as recharging apparatus for cell phones); and education by manufacturers on refining purchasing to reduce waste. Manufacturing technologies that reduce waste includes new ways of setting dies so that more of a sheet of metal or plywood is used.

Public Education: Public education activities are often directed at waste prevention practices, and are an important tool for promoting waste prevention. Waste prevention is often accomplished by changing behavior (consumption patterns) so that new habits or practices are developed that generate less waste. These changes often require education and promotion of new ideas or methods.

There are 66 schools within Snohomish County that participate in the Washington Green Schools program. This is a web-based, five-level program to provide resources for schools to become certified as a Washington Green School. The program assists schools in assessing and taking actions regarding energy efficiency, recycling and waste prevention, toxics reduction and indoor air quality and water quality and conservation. There are many opportunities for cities to partner in this program, utilizing their own outreach efforts to achieve the same messages/goals as those in the program.

Waste Prevention Activities by State, Federal and International Agencies

Plastic Packaging: Senate Bill 5397 established a goal of achieving sustainable plastic packaging policies in Washington State. State legislators adopted a goal that all packaging sold in Washington will be 100% recyclable, reusable, or compostable, and that this packaging contains at least 20% postconsumer recycled material by 2025. This law required that the Department of Ecology conduct an independent study to gather data on the amount and types of plastic sold in the state, and the management and disposal of that plastic packaging. The report was issued in October 2020 and it identified several improvements that could be made for management of waste plastics.

Paint: As part of the new product stewardship program in Washington State, the paint industry is required to promote the idea that residents and businesses should avoid purchasing extra paint. This program is funded and operated by the paint industry.

State Solid and Hazardous Waste Plan: In the State plan, which is also known as the "Beyond Waste plan," the State has a goal to increase the focus on manufacturing and use, not just end-of-life issues. This Plan promotes environmentally-preferred purchasing, independent, third-party certifications and labels, and enabling more reuse of materials and products.

The plan also has a goal to reduce toxic threats in products and industrial processes. The Plan encourages less toxic products and industrial processes through better design. Working with stakeholders, Ecology plans to establish continuous improvement goals for waste reduction, reuse, and recycling (including for organic materials) that promote highest and best use of materials, based on economic, environmental and human health criteria, and to account for regional differences across the state.

Sustainable Consumption: The Sustainable Consumption and Production (SCP) and Sustainable Industrial Policy Action Plan addresses European Union goals for environmental sustainability, economic growth, and public welfare. By improving the overall environmental performance of products throughout their life-cycle and supporting the development of more sustainable products and production technologies, it seeks both to foster resource conservation and resource efficiency. The United States does not have a formal national policy or strategy for sustainable consumption and production or for sustainable development. The U.S. Environmental Protection Agency (EPA) sponsors numerous sustainability programs for the built environment, water, ecosystems and agriculture, energy, and materials and toxics. The Network for Sustainability is a voluntary, collaborative network of Federal agencies in the Western United States focused on fostering and furthering the concept of sustainability within the government. Some American counties and cities have initiated sustainability strategies.

Private Sector Waste Prevention Activities

Many private companies have implemented waste prevention practices. Starbucks has made substantial progress in reducing the impact of waste generated in their stores through cup innovation and improved packaging design, advocacy for local recycling infrastructure, and offering reusable cups. In 2019, Costco deepened their focus on packaging and are developing a global packaging and plastic plan that addresses many aspects of business including reducing the amount packaging, educating employees and increasing the recyclability and compostability of all packaging. Albertsons Companies announced that 100% of its Own Brands packaging will be recyclable, reusable, or industrially compostable by 2025, and they have pledged to reduce plastic waste throughout the company. The new commitment furthers the circular economy for packaging at the company's 2,300 Albertsons, Safeway, Vons, Jewel-Osco, Tom Thumb, Shaw's, Star Market, ACME Markets, Randalls, Haggen, and other banner stores.

Walmart has announced that it will work with its U.S. private brand suppliers on the following commitments:

- seek to achieve 100% recyclable, reusable or industrially compostable packaging for its private brand packaging by 2025;
- target at least 20% post-consumer recycled content in private brand packaging by 2025;
- label 100% of food and consumable private brand packaging with the How2Recycle® label by 2022;

- work with suppliers to eliminate PVC in general merchandise packaging by 2020; and
- reduce private brand plastic packaging when possible.

Amazon has eliminated packing with Styrofoam and now uses "air pillows" and various types of paper packing. Amazon is also experimenting with returnable packaging. Other companies are using reusable pallets, including in some cases where the pallets are leased to companies by the manufacturer. In other cases, shipping boxes are designed to be converted into display cases for the products being shipped.

PLANNING ISSUES

Waste prevention is supposed to be the highest priority on the waste management hierarchy. Effective waste prevention will require a new way of thinking about consumption and disposal. There are numerous regulatory and cultural barriers to making such changes. Overcoming these barriers will require special attention to what stands in the way of discarding less.

Near-Term Planning Issues

Current issues related to waste prevention include:

- County and city employees have limited funds and staff to promote waste prevention efforts. A new source of funding needs to be identified.
- Better strategies are needed for communicating with the public. Waste prevention outreach needs to be developed and implemented.
- Measuring the results of waste prevention programs is difficult, and hence it is difficult to demonstrate the overall cost-effectiveness of programs. The results of specific waste prevention methods are sometimes easier to measure, but still pose a challenge for demonstrating cost-effectiveness. A more effective, simple and easily digestible method of interpreting and evaluating campaign or program data needs to be developed.

Long-Term Planning Issues

Emerging long-term issues related to waste prevention include:

- Despite its high priority, waste prevention is a difficult topic for municipalities to address because it often requires either additional public education efforts (which are costly) or mandatory requirements (which are usually unpopular). Some activities may also be interpreted as anti-business (for programs targeting a reduction in use of a specific product).
- Additional product stewardship programs could increase waste prevention. Product stewardship can lead to waste prevention by spurring manufacturers to take an

increased interest in ease of disassembly, recyclability, repairability and related issues for their products.

ALTERNATIVES

Alternative A – Reduce Specific Products

This ongoing activity is most effectively done with other jurisdictions. Local governments are already working on the reduction of several specific products, such as looking for effective ways to ban or reduce junk mail. This alternative is based on the idea that more could be done in this area, and that aggressively identifying and pursuing this approach would have long-term benefits.

Alternative B – Promote Waste Exchanges

One method to reduce industrial and commercial waste is to encourage greater reuse of items and materials. This could be done through an established waste exchange or a local program. The participating jurisdictions could promote, develop, and monitor use of IMEX (Industrial Materials Exchange), the regional waste exchange managed by the Seattle-King County Department of Public Health. Other options for residential and commercial waste exchanges include online services such as Twitter, Facebook, OfferUp, Next Door, Freecycle and many others.

The success of any waste exchange program depends on how well it is managed and promoted. Advertisements in local newspapers and flyers are required to keep the waste exchange visible. Existing waste exchange listings could be made available to local trade associations and business groups. Those groups could be encouraged to subscribe to the listing independently. With good promotion, a waste exchange can be effective in reducing waste.

Most companies practice both source reduction and recycling of industrial wastes. If some businesses cannot achieve closed-loop recovery, some may be able to sell wastes as by-products. One business's waste stream could be a viable feedstock for some other company in a completely different industry. Similarly, businesses might be able to purchase lower-cost recycled materials from another company's residuals. There are a few industrial parks that are designed to facilitate these practices.

Alternative C – Continue to Monitor and Evaluate Legislation

A number of pieces of legislation were considered recently in Washington State that could increase waste prevention for specific products and materials. Snohomish County and the cities, through their own legislative contacts or through their involvement with groups such as the Washington Association of County Solid Waste Managers (WACSWM), could actively support bills for waste prevention activities. These bills could include right-to-repair laws, food labeling requirements, and requirements for food service products and packaging to be recyclable or compostable.

RECOMMENDATIONS

The following recommendations are being made for waste prevention programs:

WP1) Increased use of social media and promotion of waste exchanges will be conducted.

WP2) Snohomish County will coordinate and collaborate with WACSWM on product stewardship and waste prevention measures.

WP3) The impacts and results of waste prevention efforts will be identified and monitored.

Snohomish County will coordinate and collaborate with municipalities and regional organizations/business partners to provide guidance in implementing waste prevention programs.

The costs to implement these recommendations will primarily be staff time for planning and coordination, plus a small amount of additional public education and other expenses.

The schedule for implementing most of these recommendations is either ongoing or to conduct these activities in the next five years.

RECYCLING

SUMMARY

This technical memo addresses recycling activities in Snohomish County. "Recycling" refers to the transformation or remanufacturing of recyclable waste materials into usable or marketable materials for use other than landfill disposal, alternative daily (landfill) cover, industrial waste stabilizer, combustion or incineration. This *Snohomish County Comprehensive Solid and Hazardous Waste Management Plan* (or "Plan") addresses recycling separately from reuse (where products or materials are used again in their existing condition, see the Waste Prevention technical memo) and organics (where composting or similar steps are required to convert materials into a product that indirectly, through plant growth, creates a similar material, see the Organics technical memo for more information). Proposed steps to reduce contamination in recycling programs are addressed here and also in the Contamination Reduction and Outreach Plan (see Appendix H).

Recycling systems have experienced severe challenges in the past few years due to the closure of Chinese and other international markets. The actions by the Chinese were in part due to increasing levels of contamination in the recyclable materials collected in and shipped to them from the U.S. This has forced recycling programs to reassess their approach. Snohomish County, like many others, are now placing a greater emphasis on making sure that the items collected for recycling are marketable, including eliminating materials with no or poor markets, stressing the need for recyclable materials to be clean and dry, and reducing contamination.

The recommendations made by this technical memo address the need for simplification and standardization of core recycling programs and principles in Snohomish County. Other recommendations address the need for enhanced education campaigns, evaluating the potential for user-pay recycling, and increased SWAC involvement for area recyclers.

BACKGROUND

Snohomish County's existing (2017) recycling rate is estimated to be 63.9% (see Appendix D for more details). This figure has increased from 48.8% in 2009 (the figure shown in previous solid waste plan), and is based on the annual recycling survey conducted by the Washington Department of Ecology (Ecology). Most of this increase is due to construction and demolition (C&D) materials, which previously were not counted in the recycling rate. As shown in Appendix D (see Table 2 in Appendix D), the amount of C&D materials measured by Ecology in 2017 was 493,884 tons, which is over half (52.6%) of the total amount of materials classified as recyclable by Ecology for that year. Materials diverted to energy recovery are not counted as recycling in this

plan, and instead are addressed in other tech memos (such as the Energy from Waste Tech Memo).

Recycling programs create significant benefits to the residents and businesses in Snohomish County, including:

- Greenhouse gas reductions and related benefits for sustainability.
- Recycling creates more jobs. Ton-for-ton, recycling creates up to seven times more jobs than landfilling the same amount of a material (NRDC 2014).
- Recycling returns resources back into the stream of commerce, not only providing for future sustainability but also ensuring that the necessary materials are available for manufacturing processes. Plus, it is often cheaper and more cost-effective to use recycled materials in manufacturing, thus making local industries that use recycled materials more profitable and competitive.

Goals and Policies for Recycling

Goals and policies specific to recycling include:

- Goal 2: Ensure efficient services for a growing and changing customer base.
- Policy 2-1, Recycling: Continue to offer and develop programs that encourage recycling.
- Related policies from other technical memorandums include:
  - Policy 1-1, Climate Change: Support efforts and actions by County and other agencies to reduce GHG emissions and to lessen and prepare for the impacts of climate change.
  - Policy 1-3, Waste Prevention: Continue to offer and develop programs that encourage waste prevention.
  - Policy 2-2, Organics: Continue to promote and expand the collection and non-landfilling of yard debris, wood waste, and food waste.
  - Policy 2-3, Waste Collection: Provide a variety of equitable and efficient collection services to County residences and businesses that are in line with the Division's other goals and policies.
  - Policy 2-8, Moderate Risk Waste: Continue efforts to reduce the generation and toxicity of moderate risk waste and to ensure that convenient, cost effective and sustainable options for its safe management are available.

Regulations for Recycling

State Planning Requirements: Washington State's goal of 50% recycling, composting and waste reduction must be addressed in solid waste plans, but each county is expected to set their own goal based on local conditions and constraints. State planning guidelines (Ecology 2010) require solid waste plans to establish urban-rural

boundaries and to designate a list of recyclable materials that must be collected by programs in the county (see the Planning Issues section of this technical memo). Solid waste plans must also address markets for recyclable materials, which in this Plan is included with the discussion of designated recyclable materials.

One of the more relevant provisions of State law is the 2010 amendment to RCW 70A.205.040. This amendment requires that solid waste management plans address source separation and collection of recyclable materials, and the proper preparation of materials for reuse or recycling. Solid waste management plans are also required to address "construction and demolition waste for recycling or reuse." The Legislature's stated intent for this amendment was "increasing available residential curbside service for solid waste, recyclable, and compostable materials provides enumerable public benefits for all of Washington. Not only will increased service provide better system-wide efficiency, but it will also result in job creation, pollution reduction, and energy conservation, all of which serve to improve the quality of life in Washington communities. It is therefore the intent of the legislature that Washington strives to significantly increase current residential recycling rates by 2020."

State law also requires a program "to monitor the collection of source separated waste at nonresidential sites where there is sufficient density to sustain a program" (RCW 70A.205.045.7.b.ii). In Snohomish County, monitoring commercial recycling activities is being accomplished by the Solid Waste Division and others, who periodically collect information on services offered by the private sector and cities in order to help promote those.

State Provisions for Recycling Programs: Several state rules and regulations affect the manner in which recycling can be conducted in Snohomish County, including Chapter 70A.205 RCW, Chapter 70A.214 RCW, Chapter 81.77 RCW, and various WACs (especially Chapter 173-350 WAC). Counties have limited authority over most solid waste management options but are allowed to contract for the collection of residential recyclables by requesting authority from the Washington Utilities and Transportation Commission (UTC). An example where a county has taken control of the residential curbside recycling collection is in Clark County. Another county (Kitsap) took control of curbside recycling for a short time, but then opted out. Cities and private companies have more flexibility, and can conduct their own recycling programs or contract with various companies for recycling services. One opportunity that ties into the UTC's jurisdiction is the establishment of rate incentives to encourage recycling. Through this Plan, an "incentive rate" structure can be established in the certificate (franchise) areas. Cities can also set rates that encourage recycling and waste reduction.

Private companies have significant flexibility in conducting commercial recycling activities and programs that provide drop-off opportunities. There are some limits on these services, not the least of which is the requirement that materials are actually recycled. This requirement is addressed by the Recyclable Materials Transporter and Facility Requirements (see below). As noted above, residential curbside programs are managed through the UTC system, or through city and town contracts for these services.

Specific additional State laws that impact recycling include the following:

Revenue-Sharing Agreements: RCW 81.77.185 allows waste collection companies (certificated haulers) to retain part of the proceeds from the sale of recyclable materials as an incentive to increase the quantity and quality of recyclables collected, and to seek out the best market prices or to improve services. Under this law, waste collection companies may retain up to 50 percent of the revenues for sales of recyclable materials if the UTC approves their plan for the use of those revenues. Before such a plan can be submitted to the UTC, it must be certified by the county as being consistent with the county's solid waste management plan, and generally the county and a waste collection company enter into an agreement that specifies new or additional activities to improve recycling programs that will be undertaken using the retained funds. Snohomish County has previously worked with haulers to implement or expand a variety of activities, such as:

- increasing recycling outreach activities;
- new coordinated communication plans and educational materials;
- recycling outreach in Spanish to the Latino community;
- addition of food waste to yard debris collection programs;
- characterization studies of recyclables, residuals and contaminants;
- reporting of recycling and disposal data;
- efforts to increase collection service customers;
- expansion of curbside to include additional materials;
- multifamily customer outreach; and
- improving performance at material recovery facilities, including technology and equipment additions and upgrades.

At this point in time, given the poor markets for recycling, there are essentially no funds available to continue the revenue sharing agreements and the programs are operating at a deficit.

Recyclable Materials Transporter and Facility Requirements: The Recyclable Materials Transporter and Facility Requirements (RCW 70A.205.300) requires transporters of recyclable materials to register with the state and requires certain recycling facilities to notify the state before commencing operation. A new state rule, the Recyclable Materials Transporter and Facility Requirements (Chapter 173-345 WAC), was developed in response to this legislation. Although originally directed at C&D recycling issues, the new rule covers all types of recyclable materials (all materials that are designated as recyclable in this Plan). The new rule prohibits recyclable materials that have been separated and collected for recycling from being delivered to transfer stations and landfills. The rule does not apply to several entities, including self-haulers, cities and city contractors, Tribes, and charities.

The Event Recycling Law: This requirement is in effect in communities where there is an established curbside service and where recycling service is available to

businesses, a recycling program must be provided at every official gathering and at every sports facility by the vendors who sell beverages in single-use aluminum, glass, or plastic bottles or cans. A recycling program must include a provision for receptacles or reverse vending machines, and coordinators may choose to work with vendors to coordinate the recycling program. The recycling receptacles or reverse vending machines must be clearly marked, and must be provided for the aluminum, glass, or plastic bottles or cans that contain the beverages by the vendor. For further information see RCW 70A.200.100.

Waste Reduction and Recycling Education (WRRED) Grants Program: The WRRED grants were awarded in 2019 through a competitive grant program that provided up to $60,000 to qualified local governments and non-profit organizations for local or statewide education programs designed to help the public with litter control, waste reduction, recycling, and composting. Marysville was awarded a $53,000 grant to improve their multi-family recycling efforts. Snohomish County received $40,000 in grant funds to improve waste reduction, recycling and education at the Evergreen State Fairgrounds.

Recent Legislation: Several new laws were passed in 2019 and 2020 that adopted new programs or requirements, including:

Recycling Development Center, Chapter 70A.240 RCW: To support recycling markets, the Washington Legislature established the Recycling Development Center (RDC) within Ecology. The RDC is tasked with researching, developing, expanding, and incentivizing markets for recycled commodities. The RDC is partnering with the Washington Department of Commerce to further the development of markets for recycled products.

Contamination Reduction and Outreach Plans (CROP), RCW 70A.205.045: To combat contaminants in Washington's recycling stream, Ecology developed a statewide Contamination Reduction and Outreach Plan (CROP). This statewide plan identifies problematic contaminants and addresses strategies to reduce them. Local governments are required to create and adopt their own CROP plans, or use the state plan, by July 1, 2021.

Paint Stewardship Program, Chapter 70A.515 RCW: This law requires all producers of architectural paint, selling in or into Washington, to participate in and provide funding for a product stewardship plan. This program began in April 2021.

Plastic Packaging Study, Chapter 70A.520 RCW: This law required that Ecology evaluate and assess the amount and types of plastic packaging sold into Washington, as well as their management and disposal. The law also required that Ecology submit a legislative report on the evaluation and assessment of plastic packaging by October 31, 2020. The report included recommendations to reduce plastic packaging and other packaging waste through industry initiative, product stewardship, or both. As part of this law, the Legislature intended that Ecology consult with industry and consumer interests and develop options to reduce plastic packaging in the waste stream by January 1, 2022.

Plastic Package Degradability, Chapter 70A.455 RCW: This law requires environmental marketing claims for plastics to follow uniform and recognized standards for compostability and biodegradability. Plastic products marketed as such must be readily and easily identifiable as meeting these standards. Under this law, the Washington State Attorney General and local governments have authority to pursue false or misleading environmental claims about a plastic product's compostability and biodegradability.

Plastic Bag Ban, Senate Bill 5323: A ban on thin carryout plastic bags in Washington State was signed into law on March 25, 2020. The legislation was intended to go into effect on January 1, 2021, but has been delated due to the Covid-19 pandemic. When it goes into effect, it will ban retailers from giving out single-use plastic carryout bags and requires an 8-cent charge for other bags. The 8-cent charge will help stores cover the cost of paper or reusable bags and create an incentive for shoppers to bring their own bags. The fee will increase to 12 cents in 2026. The legislation also requires paper bags to be made from 40% recycled material.

County Code: Much of the solid waste activities, especially for regulation and enforcement, are directed by the Snohomish County Code. The sections of Title 7 of the County Code that are relevant to solid waste include:

- 7.34 – establishing the Solid Waste Advisory Committee.
- 7.35 – establishing a comprehensive county-wide program for solid waste handling, recovery and/or reclamation. This requires effective control of all non-exempted solid waste generated and collected within the unincorporated areas of Snohomish County.
- 7.41 – operating rules and disposal fees for Snohomish County solid waste facilities.
- 7.42 – minimum service levels for recycling and waste collection in the unincorporated areas. The purpose of this chapter is to define levels of single-family and multi-family residential solid waste and recycling services which shall be provided to households in areas serviced by solid waste collection companies operating in unincorporated portions of Snohomish County.

EXISTING PROGRAMS AND ACTIVITIES

Drop-Off Recycling

Several sites throughout the county accept various recyclable materials. A few publicly operated sites accept a wide range of materials, but the sites operated by private companies usually take only a specific material or similar types of materials (in line with the nature of the business). These sites can generally be used by either residential or commercial customers, although in some cases commercial customers can generate volumes of materials that are difficult to haul to the sites or that exceed the capacity of

the drop-off sites to handle (in which case a commercial collection service would be more appropriate).

The three transfer stations and three drop box sites operated by Snohomish County Solid Waste Division collect a wide range of paper, glass and metals.

There are a number of sites that accept a specific material or a limited range of materials for recycling. There are also some sites that accept materials for reuse (which are addressed in the Waste Prevention technical memo), or for composting (which are addressed in the Organics technical memo). The materials accepted by various sites for recycling include appliances and other metals, automotive wastes such as oil, construction wastes, electronic wastes, printer cartridges, rechargeable batteries, and other materials that are too numerous to list here. The list below highlights some of the materials accepted for recycling, but by no means is this list complete:

- Appliances without freon or other chlorofluorocarbons (CFC's) can be dropped off at several private vendors in the county. Appliances with CFC's are accepted by vendors in Arlington, Everett, Lynwood, Marysville, Mukilteo and Snohomish.
- Automotive wastes such as oil and antifreeze are accepted at the County's transfer stations, drop box sites and the Moderate Risk Waste (MRW) facility. Used oil is accepted for recycling at more than 30 private locations in the county, some of which also accept antifreeze. Car batteries are accepted at almost 20 locations throughout the county.
- Battery collection displays in many of the larger hardware stores in the county collect rechargeable batteries for recycling.
- Several companies collect construction, demolition and land clearing debris in the county. Recycling sites for materials such as tree stumps, branches, clean lumber, leaves and clippings, plywood, wood pallets, soil, concrete, sod and stone are readily available throughout the County (see also the Organics technical memo). Wood waste is also accepted at the County-operated transfer stations. Several private companies in or near the county take other construction and demolition materials for recycling, including asphalt, brick, carpet, concrete, drywall and porcelain.
- As of early 2020, there were 29 E-Cycle Washington locations in Snohomish County for computers, TV's, laptops, monitors, tablets, e-readers and portable DVD players. The County does not collect E-Cycle items at the transfers stations or drop boxes. Other sites (which are not part of the E-Cycle program) collect these and similar items for a fee. Peripherals such as keyboards, copiers, printers, scanners and cell phones are also collected at many of these other sites in the county, and are taken at no charge at Best Buy and Staples stores.
- Metals are accepted by a variety of recycling operations in the county. Many of these accept aluminum cans, ferrous and non-ferrous scrap, auto bodies and parts (with proof of ownership as required by RCW 46.80.090), and steel barrels. Metals recyclers will often pay for these materials.

- Plastic bags are currently accepted by many grocery stores in the county. With the recent Washington State plastic bag ban starting in 2021, this collection method may be curtailed due to the decrease in plastic bag use at the grocery stores.
- Drop boxes distributed throughout the county collect books and clothing primarily for reuse, but a portion of these materials is not suitable for reuse and is recycled instead. Contamination can also be an issue.
- Many of the materials accepted by the Household Hazardous Waste Facility are also recycled (see the MRW Plan in Appendix B for more details). Several items are also collected at other sites, such as batteries, paint, and light bulbs.
- Annual cleanup or periodic collection events are conducted in a few of the cities. For the last few years, Sultan has provided a garbage collection cleanup day with paper shredding for their residents, and Republic Services Inc conducts styrofoam collection events for their customers in Edmonds and Woodway.

Curbside Collection

Curbside collection of recyclables is available to all residents in the county, both in the cities and the unincorporated areas. Four private haulers provide these services: Republic Services Inc, Rubatino Refuse Removal Inc, Sound Disposal Inc, and Waste Management Northwest. Tonnages collected by these haulers in 2019 from single-family homes are shown in Table 1. Most areas have their recycling picked up every other week, while a few of the cities have weekly service.

The materials accepted by the curbside programs vary depending on the service provider, but at a minimum include the materials required by county code (SCC 7.42). These materials include paper, glass bottles, metal cans, and plastic bottles, and some programs collect additional materials such as plastic tubs.

Table 1. Single-Family Curbside Recycling Tonnages

Collection Company	Number of Single-Family Recycling Customers[1]	Annual Tons, 2019[1]	Pounds per Household per Year
Republic Services Inc	29,664	8,638	582
Rubatino Refuse Removal Inc	20,077	5,072	505
Sound Disposal Inc	1,645	988	1,201
Waste Management NW	141,566	33,303	470
Totals	**192,952**	**48,001**	**498**

Notes: 1. The number of customers shown is the number of single-family recycling accounts for December 2019.

Source: From data reported by haulers to Snohomish County (Snohomish County 2020).

Participation in the curbside recycling programs are incentivized by the rate structures used for garbage and recycling services. "Variable rates" or "volume-based rates" are used throughout Snohomish County. This means that households are charged significantly more for disposing of more garbage. Businesses are generally already charged according to the amount of garbage disposed and this approach is almost impossible to implement for individual apartments, so this strategy typically refers only to single-family homes. Many households can reduce their garbage service to one can per week by recycling. Avid recyclers or households that minimize waste as much as possible can also choose a "mini-can" rate (a 20-gallon can).

Multi-Family Collection

Recycling services are available for multi-family buildings throughout the county. These services are provided by the UTC certificated or contract haulers for that area or under a separate contract in the city with a municipal garbage collection program (Marysville). The haulers provide a variety of equipment and containers, such as roll-off (drop box) containers and carts (32, 64 and 96 gallons in size). The multi-family programs collect the same or similar materials as the curbside programs for single-family homes, including paper, glass bottles and jars, metal cans and plastic bottles and tubs. Multi-family residents can also use the drop-off centers described previously in this technical memo. Due to a number of challenges, such as educating tenants who frequently move, language barriers and coordinating with property managers, the recyclables collected from multi-family units are often contaminated.

Commercial Collection Programs

Numerous recycling companies collect a variety of materials from commercial sources. These companies provide recycling services at the request of the commercial business. Items that are collected this way include wood waste, office paper, cardboard, scrap metal and food waste. Many businesses also subscribe to commingled stream recycling services provided by the hauler in that area. The recycling companies can provide roll–off containers (20 to 40 yards), dumpsters (1 to 8 yards), or carts for recycling collections at a regular frequency or on an on-call basis. The recycling companies generally charge for these services, and only rarely is the value of the material collected sufficient to purchase it or provide the service at no charge.

The Snohomish County Solid Waste Division provides assistance to commercial recycling programs upon request. For example, the Evergreen State Fairgrounds is using Snohomish County grant funds in their efforts to reach a zero waste goal. They provide recycling and compost containers that accompany almost every garbage can at the fairgrounds. Attendees to the fair can use their reusable water bottles when ordering drinks rather than using a disposable cup. The fairgrounds also employs staff who use a trash picker-upper to remove recyclables thrown in the trash and put them in the recycling container.

The Industrial Materials Exchange (IMEX) is an on-line and catalog service designed to help businesses find markets for industrial by-products, surplus materials and waste.

C&D Recycling Programs

Recycling programs for construction and demolition (C&D) materials have undergone significant changes in the recent years. The most recent change was the adoption of an amended ordinance (Snohomish County Code 7.35 and 7.41), which requires waste generators of all types to adhere more closely to rules that require solid waste generated in the county to stay in the Snohomish County system. This especially affects C&D recycling programs because construction sites will now be required to clearly label recycling and waste containers and to ensure that recycling containers do not contain 10% or more of non-recyclable contaminants. See the Disposal technical memo for more details on flow control and the residual reclamation waste program.

Analysis of Recycling Results in Snohomish County

An analysis of the recycling tonnages collected by various public and private activities in the county provides a clearer picture of the current performance of those programs and helps to demonstrate the relative amount of recycling being conducted by the public and private sectors. Table 2 provides data on the collections conducted by contract and UTC certificated haulers in Snohomish County. These figures provide a fairly accurate analysis of the participation rate and results for curbside recycling programs, but it should be kept in mind that there are many other recycling activities that residential and commercial generators are participating in. Commercial generators in particular are recycling substantial amounts of other materials through a variety of other programs.

Table 2. Recycling Tonnages Collected by Contract and Certificated Haulers

Type of Generator	Tons Collected, tons per year (2019)	Number of Customers or Accounts (as of December 2019)	Total Households or Businesses	Percent Subscribed
Single-Family	48,001	192,952	220,581[1]	87.5%
Multi-Family	6,139	2,676	100,846	NA[2]
Commercial	22,391	5,122	20,228[3]	25.3%
Organics, Single-Family	70,631	105,542	220,581	47.8%
Organics, Multi-Family and Commercial	2,404	2,580	121,074	NA
Total	149,566			

Notes: The figures for the recycling tons collected from each type of generator and the number of accounts are from hauler reports to Snohomish County (Snohomish County 2020).

1. The number of single-family homes includes single dwellings and duplexes, and is based on data from the Office of Financial Management (OFM 2020) for the number of households and data from the U.S. Census for the breakdown by housing type.
2. NA = Not Available. The participation rate for multi-family recycling and multi-family/commercial organics cannot be determined based on the available data because it is unknown how many apartment units are included in the number of multi-family accounts.
3. The number of businesses is a third quarter 2019 figure from the Washington State Employment Security Department's web page https://esd.wa.gov/labormarketinfo/covered-employment (ESD 2020)

Another way to look at the results of the recycling programs in Snohomish County is to consider how much of the total is being collected by each method. Table 3 shows this analysis to the extent that the data is available. Data for the amounts collected by the haulers is taken from Table 2. The amount shown for "county-operated sites" is from Table 1 of the Transfer tech memo. The amounts for "all other recycling" are from Table 2 of Appendix D, and have been adjusted to avoid double-counting of wood and organics collected at the county-operated sites and by the haulers.

Table 3. Recycling Tonnages by Collection Method (2019)

Collection Method	Annual Tons	Percent of Total
Haulers:		
Single-Family (curbside)	48,001	5.1%
Multi-Family	6,139	0.7%
Commercial	22,391	2.4%
Subtotal, Recycling	76,531	8.2%
Organics (curbside and commercial)	73,035	7.8%
Total for Haulers	149,566	15.9%
County-Operated Sites	29,943	3.2%
All Other Recycling		
C&D	490,549	52.2%
MRW	12,396	1.3%
Organics	69,190	7.4%
Other	187,239	19.9%
Total for All Other	759,374	80.9%
Total	938,883	

Notes:
- The figures for the recycling tons collected by contract and UTC certificated haulers are from hauler reports to Snohomish County for 2019 (Snohomish County 2020).
- The tonnage figure for county-operated sites are from county records. This figure includes wood, yard debris and various recyclable materials, but does not include MRW.
- The tonnage for "all other recycling" is the difference between the amount of recycling reported by the Department of Ecology (Ecology 2020), which is a 2017 figure, and the other sources. The amount of C&D shown has been adjusted for the amount of wood included in the figure for "county-operated sites" and the amount of organics has been adjusted for the amount of organics collected by the haulers and the amount of yard debris included in the figure for "county-operated sites." See Table 2 of Appendix D for more details.
- The total recycling figure does not include the "recovered and reused" materials reported by Ecology, which includes items such as wood and other materials burned for energy, organics handled through anaerobic digestion, and reused clothing and household goods.
- The data shown includes recycling tonnages collected in both incorporated and unincorporated areas of Snohomish County.

PLANNING ISSUES

This section of this technical memo provides information about near and long-term planning issues specific to Snohomish County, and also addresses issues that are

required by State planning guidelines (Ecology 2010) to be addressed (such as urban-rural designations and designation of recyclable materials).

General Planning Issues

Current near-term planning issues related to recycling include:

- Single stream collection issues, including commodity cross-contamination and quality.
- Processing of single-stream materials to remove contamination.
- The need to understand markets for recycling. What is the market price or other criteria for choosing between recycling and when to dispose of a material?
- Educating the public on the cost of recycling and the impacts of "wishful recycling."
- Options for improving multi-family recycling and reducing contamination.
- Processing of mixed loads to ensure proper separation of recyclables and waste for construction and demolitions wastes.
- Financial support for recycling and finding replacement funding for activities that had been funded through revenue-sharing agreements.
- Compliance with event recycling law.
- Address businesses conducting sham recycling and maintain flow control enforcement.
- Community conversations about greenhouse gas emissions and how that relates to whether or not something should be recycled or not.
- Coordination and collaboration with the Washington Association of County Solid Waste Managers (WACSWM) recycling guidance.

Emerging long-term issues related to recycling include:

- Role of recycling requirements, disposal bans, mandatory programs in increasing recycling.
- The need to reduce contamination.
- How to recycle in a cost-effective manner.
- Public perception that recycling alone is good enough.
- Increase the ideas of reuse of materials as opposed to just recycling.
- Public perception that recycling should be free when some materials incur a significant cost to recycle.

Designation of Urban-Rural Boundaries for Recycling Programs

State law (RCW 70A.205.050) requires that criteria be adopted to designate areas within a county as either urban or rural, and that recycling and other services be provided as appropriate for each type of area. For urban areas, the recommended minimum service level for recycling is curbside collection. For rural areas, the

recommended minimum service level is drop-off centers at all disposal facilities and other convenient locations. In Snohomish County, curbside collection is required throughout the county and so there is no difference in service levels for urban and rural areas.

This Plan satisfies the requirements for establishing urban and rural boundaries by adopting the urban boundaries shown in the *Snohomish County Comprehensive Plan* (Snohomish County 2016). By incorporating by reference the urban boundaries shown in the Comprehensive Plan, including any future revisions, the programs and policies of this solid waste plan are consistent with that important document, and are automatically updated as the urban boundaries are revised in the County's Comprehensive Plan.

Designation of Targeted Recyclable Materials

State regulations (RCW 70A.205.045.7.c) require "a description of markets for recyclables." State planning guidelines also require the designation of what materials will be collected for recycling, with marketability being one of the factors to consider in this designation process. The designation of recyclable materials took on more importance with the adoption of Chapter 173-350 WAC, which defines recyclable materials as being those materials "that are identified as recyclable materials pursuant to a local comprehensive solid waste plan."

A description of markets for materials collected in Snohomish County is provided below. This is intended to be only a brief report of current conditions (current as of mid-2020). It should be noted that market conditions for recyclables can change drastically in a short amount of time, which is a challenge for a long-range document such as this Plan. Rather than provide an exhaustive review of current market conditions, this Plan will be more useful in the future if it can be responsive to changing conditions. Hence, the list of designated materials includes a description of the process for revising that list.

Market overview: A significant factor for market conditions for recyclable materials is the recent closure of overseas markets and the resulting decrease in demand for recyclable materials. Much of the recyclables collected in the United States, especially on the west coast, had been shipped to China until that country halted most of the imports of recyclable materials over concerns about growing amounts of contamination (garbage) being shipped with the recyclables and also out of a desire to encourage more collection programs in their own country. As of this point in time (mid-2020), there were signs of economic recovery and prices began increasing for many of the recyclables as domestic markets in the U.S. began to ramp up to use more recyclables, until the Covid-19 virus shut down a lot of the economic activity in the country. These swings in market prices underscore the need for caution when implementing new or expanded programs, as well as the need for flexibility.

Additional factors affecting specific materials are shown in Table 4. The materials listed and factors discussed in Table 4 primarily address the established markets for existing recyclables, and do not reflect the potential for new markets being created in the future. Any new markets developed in the future should be thoroughly demonstrated before

allowing those to be factored into the designation of recyclable materials or other parts of the Snohomish County system.

Table 4. Current Markets for Recyclable Materials

Material	Primary Market(s)	Comments
Paper, including cardboard, mixed paper and newspaper	Regional paper mills.	Markets for recycled paper are improving, with additional capacity coming on-line. Demand for cardboard is strong, but markets for mixed paper weak compared to historical trends. However, due to the current COVID-19 outbreak, tissue mills report a shortage of recycled paper.
Plastics	Regional markets in western Washington and limited export.	Current markets for plastics vary based on type. Recent programs to use plastics for energy production are not classified as recycling.
Metals, including aluminum and tin cans, white goods (appliances), and ferrous and non-ferrous scrap	Regional markets in western Washington and Oregon.	There has been adequate demand for non-ferrous metals such as aluminum and copper in the past year and this is expected to continue. Recent demand and prices have been mixed for steel. In general, prices for metals are low but manageable.
Glass, including clear, brown and green glass	Markets in western Washington and Oregon.	Prices are low for all colors of glass. Negative prices and contamination continue to be problems for glass.
Organics: Wood	Hog fuel, mulch.	Demand for these materials is moderate. More information on the markets for these materials is provided in the Organics technical memo.
Yard Debris	Compost.	
Food Waste	Compost.	
Construction and Demolition (C&D), including concrete, asphalt paving, sheetrock and other materials	Aggregates, new asphalt paving, new sheetrock, other materials.	Markets for some of these materials (concrete, asphalt paving, bricks and ceramics) are generally strong and have the added advantage that most are local markets. Markets for other materials are limited.

Note: Information is current as of mid-2020.

Designated recyclable materials: State law and Ecology's guidelines require that counties designate a list of materials as the materials to be commonly recycled in the county. In this case, the list is not intended to create the requirement that every recycling program in Snohomish County collect every designated material. Instead, the

intent is that through a combination of programs offered throughout the County, residents and businesses should have an opportunity to recycle all of the designated materials through at least one program. In other words, if plastics are on the designated materials list, then at least one program in the county should collect plastics.

Based on this analysis and information presented in other parts of this Plan, the proposed list of designated recyclable materials is shown in Table 5. This list is based on the materials that can be recycled currently. This list of designated recyclables should be used to help guide program development and implementation, but is not intended to be universally mandatory. Residents and businesses in Snohomish County should have the opportunity to recycle these items through at least one program in the county, but not every program needs to collect every material.

Table 5. List of Designated Recyclable Materials

Program/Service	Designated Material
Residential Curbside Materials: Materials that are designated as recyclables for curbside and multifamily collections. These materials are also designated for drop-off or commercial collection programs.	Glass Loose Paper Cardboard Newspaper Magazines Paperboard/chipboard Envelopes Tin/steel cans HDPE Plastic PET Plastic Aluminum cans Yard debris Food waste Other materials designated by the Solid Waste Director (SCC 7.42)*
Construction, Demolition and Land Clearing Debris: Additional materials that are designated as recyclables from construction and demolition activities.	Aggregates (brick, porcelain, ceramics, rock) Asphalt pavement Concrete Land clearing debris (stumps, brush, limbs) Uncontaminated soil Wood waste (untreated or unpainted)

* From Snohomish County Code 7.42: "The director may designate the materials which are to be collected as recyclables, yard debris or garbage. In determining the status of such materials, the director shall consider health issues, environmental and economic factors, public demand, the material's compostability and ability to be recycled, the quantity of materials in the waste stream, and standards for processing facilities and equipment." (SCC 7.42.030 (2)).

Note: Designation as recyclable only applies to those materials that have actual markets and that are actually recycled. For instance, not all wood may qualify as recyclable. If not recycled, designated materials and other wastes must be managed as solid waste for disposal.

Table 5 is based on existing conditions (collection programs and markets), and future markets and technologies may warrant changes in this list. Any new markets must be proven to be viable before changes will be made to this list. The following conditions are grounds for additions or deletions to the list of designated materials:

- The market price for an existing material becomes so low that it is no longer feasible to collect, process and/or ship it to markets.
- Local markets and/or brokers expand their list of acceptable items based on new uses for materials or technologies that increase demand.
- New local or regional processing or demand for a particular material develops.
- No market can be found for an existing recyclable material, causing the material to be stockpiled with no apparent solution in the near future.
- Legislative mandate.
- Manufacturer and/or retailer provided product stewardship programs are put in place to handle the material.

Any proposed changes in the list of designated materials should be submitted by the Solid Waste Division to the Solid Waste Advisory Committee (SWAC) for their discussion. SWAC will then review recycling criteria and evaluate the request for change to the list of designated materials. After evaluation by SWAC, the committee will provide the Solid Waste Division with a recommendation. With the concurrence of the SWAC, minor changes in the list may be adopted by the Solid Waste Director without formally amending the Plan. Thus, minor changes can be addressed in about 60 to 75 days, depending on the schedule of SWAC meetings at the time of the proposed change. Should the Solid Waste Division and SWAC conclude that the proposed change is a "major change," then an amendment to the Plan would be necessary (a process that could take 120 days or longer to complete). What constitutes a "major change" is expected to be self-evident at the time, although consideration of the relative impact on the system by the established criteria including potential waste stream diversion, collection efficiency and feasibility, processing requirements (including costs) and market conditions will be the primary factors. Ecology will be notified when changes to the list are adopted. All affected service-providers should also be notified of the effective date and other details of the change, and a public education campaign will need to be conducted to inform the participants of the affected program(s).

ALTERNATIVES

Alternative A – Increased Focus on the Simplification and Standardization of Recyclable Materials

Following guidance from WACSWM, the process of recycling should be simplified and standardized for managing agencies, the consumer and be productive for the processor. This alternative would address the need to simplify recycling: how to recycle for the household or consumer, what can be recycled, how does that commodity relate to market conditions and can materials that are recycled be standardized between

County and regional stakeholders.

Alternative B – Expanded Education Campaign on Recycling and Reduction of Contamination

With the popularity of commingled recycling, also known as single stream recycling, some participants are erring on the side of throwing everything into the recycling cart, including garbage and other contaminants. Recycling processing facilities are reporting growing amounts of contaminants in the recycling carts, especially for some materials that may be recyclable through programs other than curbside (such as plastic bags). Contamination leads to higher processing costs for recycling facilities and causes material to be landfilled that would normally be recycled. The higher the contamination level, the higher the chance that more material will be landfilled. Recycling contamination can also pose hazards to sorting facility workers. Hence, residents and businesses need to be reminded of which items are allowed in the recycling carts. Steps to reduce contamination are also discussed in the Contamination Reduction and Outreach Plan (see Appendix H).

Effective education campaigns begin with an identification of the problem, and may focus fairly narrowly on a specific issue and/or a specific audience. Once the problem (or message) and audience(s) have been identified, a variety of methods could be used:

Website: Snohomish County maintains a website to promote recycling: https://www.snohomishcountywa.gov/530/Recycling. The website features information about recycling resources, natural gardening, waste reduction, household hazardous waste and garbage rates.

Social Media: Messages can be promoted through social media avenues to include Facebook, Instagram, Twitter and other apps designed for educating and/or promoting. Local neighborhood apps such as "Next Door" could help promote recycling on a community network.

Cart Tagging: This method of messaging has been effective in identifying contamination. Once a visual observation of each recycling container is conducted, then a friendly and informational cart tag can be left saying what can be improved and often praising the homeowners on their clean recycling.

Other Methods: Other options include displays in various locations, video and radio ads.

Alternative C – Coordination with Programs in Nearby Jurisdictions

Snohomish County is involved with regional and statewide efforts to increase program consistency and reduce contamination in the recycling stream. County staff regularly meet with staff from other county, city and state agencies to compare and improve solid waste and recycling programs. Continuing this involvement can provide a number of benefits and can be used to address a number of factors, including:

Materials collected: Snohomish County is made up of 20 cities and a large unincorporated area. The County is taking the lead on synchronizing the items collected from these cities plus the four existing collectors and the processors for the areas. Snohomish County is working with other Puget Sound jurisdictions to compare notes on how best to clarify the recycling services throughout Snohomish County. The County could continue these efforts in harmonizing the recycling programs. Additionally, the County is working with the WACSWM to develop standardization and consistency with recycling guidance and collection standards.

Four recycling companies conduct curbside recycling in Snohomish County. These companies collect the same basic recyclables and none of them take shredded paper or plastic bags. The only difference in the materials collected is that one of the companies collects scrap metal, plastic lids and plastic potting pots. It could be helpful to work with the cities to either add in the missing items for other areas or remove them in the one system. In addition, the haulers and the cities produce guidelines on what they collect, and it could help to clarify the message if a standard format or the same promotional materials were used by all to show what materials are collected.

Flow control enforcement: Enforcing flow control provisions can be done more effectively if Snohomish County coordinates their efforts with cities and neighboring counties to ensure the proper collection, recycling, and disposal of recyclables and waste. Snohomish County is already working with the City of Seattle, Tacoma, Pierce, Kitsap, Skagit and King County on these issues. Additionally, regional health districts, Ecology and the UTC are also participating in regional planning efforts.

Education and outreach: Sharing programs and methods with the cities and neighboring counties on education and outreach could have significant benefits for all involved. Ecology already assists with this in some cases by sharing information in regional groups. Ecology also provides comprehensive statewide messaging for specific materials such as e-waste.

Alternative D – Consider User Pay Systems at the Transfer Stations

With limited markets and high contamination rates, the cost of recycling is increasing. While recycling costs have been embedded in garbage costs for a number of years, the recycling cost has increased and it has become challenging to continue this practice. The County could set up a user pay system for some recyclables collected at the transfer stations, and provide messaging that recycling does cost money, it is not free.

Alternative E – Solid Waste Advisory Committee (SWAC) Involvement

Given the dynamic nature of the recycling industry and how volatile commodity markets are at this time, recyclers could engage SWAC for discussion and to develop recommendations on recycling related issues.

RECOMMENDATIONS

The following recommendations are being made for recycling programs:

R1) Collaborate and coordinate with WACSWM and other regional partners/jurisdictions on the standardization, simplification and implementation of core recycling principles and programs.

R2) Implement expanded education campaigns rela' ` to recycling issues.

R3) Evaluate the impacts and possible implementation of a user-pay system for recyclables collected at Snohomish County solid waste facilities.

R4) Promote SWAC benefits and involvement to area recyclers.

Concerning R1, WACSWM has already developed state-wide guidance for commingled recycling. The County and area service-providers (cities and haulers) should follow and adapt guidance to promote and implement community standardization and simplification of recycling in Snohomish County.

For Recommendation R2, the County can engage the WSU Extension Service and possible revenue sharing agreement funds to develop and continue educational efforts.

Recommendations R3 and R4 are primarily County responsibilities. R3 will take time and resources to evaluate, while recycler involvement with SWAC could begin immediately.

REFERENCES

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DRAFT

ORGANICS

SUMMARY

This section discusses existing programs, planning issues, and alternative strategies for several organic materials, including:

- yard debris
- food waste
- wasted food
- wood waste
- agricultural waste

The recommendations made by this technical memo address the need to regionally collaborate on developing consistent messaging, the need to define organics related priorities and develop educational services that emphasize that content.

BACKGROUND

The discussion of organics in this technical memo focuses on five types of materials:

- **Yard Debris**: includes leaves, weeds, flowers, roots, grass clippings, shrubbery and small tree trimmings/branches (typically defined as being less than four inches in diameter).
- **Food Waste**: includes unwanted food preparation and table scraps. Many food waste collection programs also include compostable paper. This technical memo does not address grease collection and rendering, since grease is generally handled by a separate collection system that is not part of the solid waste system.
- **Wasted Food**: there is an important distinction between food waste and wasted food. Wasted food refers to food that was edible at one point. Wasted food becomes food waste when it spoils or is discarded, but food waste also includes items that were never considered edible in the first place (such as banana peels).
- **Wood Waste**: includes woody vegetation (branches and limbs over four inches in diameter, stumps and trunks), and manufactured wood products. Manufactured wood products are often divided into "clean wood waste" (unpainted and untreated lumber, plywood, OSB, and pallets) versus unacceptable wood (painted and treated wood).
- **Agricultural Waste**: includes crop residues, livestock manures and other organic materials generated on farms and ranches. Agricultural wastes such as these are not defined as solid wastes but are addressed in this tech memo to the extent that these are co-managed with solid wastes (such as composted with yard debris).

Organic materials have the potential to create significant problems if not managed properly, but these materials also present significant opportunities. Single-family garbage customers can now recycle food scraps and food-soiled paper in their yard waste carts. Items like meat, fish, poultry, bones, dairy, vegetable and fruit trimmings, bread, pasta and coffee grounds are now compostable. Historically, agricultural organics have been managed on-site (on the ranch or farm where generated) to reduce expenses and to improve soil quality, but management practices for these wastes continue to evolve. Now there is an increasing interest and need for doing more with all of these organics due to climate change and sustainability issues (see also the Climate Change and Sustainability tech memo).

Goals and Policies for Organics

Current Goals and Policies: Current goals and policies in this Plan specific to organics include:

- Goal 2: Ensure efficient services for a growing and changing customer base.
- Policy 2-2, Organics: Continue to promote and expand the collection and non-landfilling of yard debris, wood waste, and food waste.
- Related policies from other technical memorandums:
  - Policy 1-1, Climate Change: Support efforts and actions by County and other agencies to reduce GHG emissions and to lessen and prepare for the impacts of climate change.
  - Policy 1-3, Waste Prevention: Continue to offer and develop programs that encourage waste prevention.
  - Policy 2-1, Recycling: Continue to offer and develop programs that encourage recycling.

Beyond Waste Goals: The State's solid waste plan (the "Beyond Waste Plan") adopted the following goals for managing organics (Ecology 2015):

- SWM16: Ecology and stakeholders will create a beneficial use hierarchy for residual organic material processing and uses.
- SWM17: Less food will enter the disposal system; more discarded food will be managed according to EPA's food waste hierarchy.
- SWM18: The use of soil amendments derived from recycled organics will increase, reducing the need for synthetic fertilizers, pesticides and herbicides.
- SWM19: Agriculture, landscapes, and home gardens will need less water due to increased use of compost and other soil amendments derived from recycled organics.
- SWM20: The value of recycled organics as storm and surface water filtration media will be better understood, resulting in increased use.

- SWM21: Soil organic carbon sequestration using recycled organics will increase based on research recommendations.
- SWM22: More diversified organics processing infrastructure will exist in the state.
- SWM23: Composting facilities will produce clean end products.
- SWM24: Diversified end-use markets will be in place for recycled organic products.

Each of these goals is accompanied by one to five objectives ("actions").

Regulations for Organics

State Regulations: A new law adopted in 2020, the Compost Procurement and Use bill (ESHB 2713), amended Chapter 43.19A RCW to add three new sections. Among other provisions, these sections:

- Recognize the benefits of organics diversion and compost usage.
- Requires State agencies and local governments to consider the use of compost in government-funded projects, and to use compost if it is reasonably priced and available, and if the compost meets existing procurement, health and other standards.
- Encourage State agencies and local governments to give priority to locally-produced compost.
- Encourages local governments that provide "residential composting service" to buy back at least 50% of the compost produced from the collected organics.

The legislative findings that provide the basis for Chapter 70A.205 RCW state that "when updating a solid waste management plan developed under this chapter, after June 10, 2010, local comprehensive plans must consider and plan for the handling and proper preparation of organic materials for composting or anaerobic digestion.

Yard Debris: State law (see RCW 70A.205.045 (7)(b)(iii)) requires county solid waste management plans to address "programs to collect yard waste, if the county or city submitting the plan finds that there are adequate markets or capacity for composted yard waste within or near the service area to consume the majority of the material collected." No specific alternatives or other details are provided, but the Beyond Waste Plan (see previous section) lists a number of recommended actions for organics.

Snohomish County Code 7.42 requires the provision of curbside yard debris collection to customers of solid waste collection companies within the yard debris service zone of unincorporated Snohomish County.

A few of the cities in Snohomish County have banned yard debris from disposal with garbage, including Arlington, Lynnwood and Mill Creek.

Food Waste: State law (see RCW 70A.205.715) establishes a goal for the state to reduce by fifty percent the amount of food waste generated annually, relative to 2015

levels, by 2030. A subset of this goal includes reducing the amount of edible food that is wasted.

Wood Waste: Snohomish County supports the use of wood waste for hog fuel for the generation of steam or electricity and considers this recycling even though it is not defined as such.

Agricultural Waste: Anaerobic digesters that process 50% or more animal manure can also "import" up to 30% of their organic feedstocks from outside sources and are still exempt from solid waste permitting requirements in RCW 70A.205.290.

EXISTING PROGRAMS AND ACTIVITIES

Yard Debris Programs

In the course of maintaining yards and gardens, Snohomish County residents and businesses often produce yard debris and landscaping residues. Many residents practice backyard composting for these materials.

All local haulers separately collect yard debris and food waste as one of the services they provide. Self-haulers of yard debris and clean wood can also bring it to one of the County's three transfer stations, or to one of several private compost facilities that accept yard debris directly from residential and commercial sources and use it to produce high quality compost. The yard debris and wood collected at the County's three transfer stations is currently sent to Lenz Enterprise for processing, and the amounts collected in 2019 are shown in Table 1.

Table 1. Organics Collected at County Transfer Stations (2019)

Facility	Wood (tons)	Yard Debris (tons)	Total Organics (tons)
Airport Road Recycling & Transfer Station	1,785	5,288	7,073
North County Recycling & Transfer Station	545	1,124	1,669
Southwest Recycling & Transfer Station	1,005	10,967	11,972
Totals	3,335	17,379	20,714

Source: Snohomish County records.

Another program is an inter-agency effort to provide "alternative to burning." The Town of Darrington, Hampton Lumber Mill, Snohomish County Solid Waste, and the Puget Sound Clean Air Agency (PSCAA) work together to provide wood debris collection for recycling at Hampton Lumber Mill on select Sundays from April to October and yard debris collection at the Darrington Municipal Airport during daylight hours. These collections were temporarily suspended in 2020 due to the Covid-19 pandemic.

Current collection programs in Snohomish County are doing well at diverting most of the yard debris that is generated. Recent information shows that 127,554 tons of yard debris were recycled (composted) in 2017 (Ecology 2020a). No figures are available for the amount of yard debris handled by backyard composting and other waste reduction activities. The *2015-2016 Washington Statewide Waste Characterization Study* (Ecology 2016) shows that the waste stream for the Puget Sound Region (which includes Snohomish County and four other counties) only contained 5.0% yard debris. Combined with the amount of waste disposed by Snohomish County in 2017 (509,209 tons), leads to a figure of 25,460 tons of yard debris disposed, and a recovery of 83.4% (see Table 2). A similar analysis was conducted for food waste and wood. No figures are shown for agricultural wastes because only incomplete data was available it. The analysis shown in Table 2 is based on 2017 figures because that is the most recent year for which data is available on recycled and diverted amounts of organics, and this also matches up well with the 2015-2016 data on waste composition. The figures shown in Table 2 do not include the amounts of "other organics" recycled in 2017 (12,641 tons) or diverted in 2017 (4,229 tons), and also do not include the large amounts of food handled by food banks and other recovery options.

Table 2. Recovery Rates for Organics Materials (2017 Estimate)

Organic Materials	Tons Disposed[1]	Tons Recovered		Total Tons	Recovery Rate
		Recycled	Diverted[2]		
Yard Debris	25,460	127,554[3]		153,014	83.4%
Food Waste	91,148	18,787	1,313	111,248	18.1%
Wood Waste[4]	38,700	55,377	12,258	106,335	63.6%
Agricultural Waste	NA	NA	NA	NA	NA

Notes:
1. Figures for the amount of tons disposed are based on waste composition data from the *2015-2016 Washington Statewide Waste Characterization Study* (Ecology 2016) and an annual disposal figure for Snohomish County of 509,209 tons in 2017.
2. "Diverted" includes beneficial uses that are not defined as recycling but that still avoid landfill disposal of organic materials, such as wood used for hog fuel and food waste that is anaerobically digested.
3. The amount of yard debris recycled includes the amounts of mixed yard debris and food waste collected through curbside programs.
4. The wood waste category includes only recyclable grades of wood for the disposal figure (dimension lumber, engineered wood, pallets, crates, natural wood, and other untreated wood). The recycled wood figure includes land clearing debris.

Food Waste Collection Programs

In most areas of Snohomish County, food scrap collection programs are available for residents and businesses. Programs to collect food waste curbside with yard debris have been phased in over the past few years and are now available throughout Snohomish County. Residential food is collected curbside by the solid waste collection companies commingled with yard waste, and the material is brought to a composting facility permitted to handle post-consumer food waste.

The most recent information on recycling of food waste (Ecology 2020a) shows that 18,787 tons of food waste were recycled in 2017, and an additional 1,313 tons were diverted through anaerobic digestion. The *2015-2016 Washington Statewide Waste Characterization Study* (Ecology 2016) indicates that Snohomish County's waste stream contained 17.9% food waste, or an estimated 91,148 tons in 2017. Hence, the recovery rate for food waste was 18.1% in 2017 (see Table 2).

Wasted Food

There are a large number of non-profit food banks and hot meal programs in Snohomish County. These programs distribute food and meals to the food insecure. They rely on donated food, as well as purchasing food and supplies. These efforts are currently being coordinated through the Snohomish County Food Bank Coalition. This coalition is comprised of over 18-member food banks serving clients from Darrington and Stanwood-Camano south to Mountlake Terrace, east to Sultan and all points in between. The Food Bank Coalition members meet to discuss healthy choices, bulk purchases, best practices, and common policies and procedures. Partnering agencies, like Citrine Health, Food Lifeline, Northwest Harvest, Washington Food Coalition and Within Reach attend these meetings to share additional resources available to food banks and the families they serve. The Food Bank Coalition is now able to accept still edible but highly perishable food from local area businesses. This food would otherwise have been discarded as previously there was no easy way to get it to the programs that could use it.

Snohomish County has previously worked with food banks to arrange donations of less perishable discarded food (such as canned goods and meats that could be frozen and fruit and vegetables wish some shelf life). Most food banks cannot handle the highly perishable segment, including cooked foods such as fried chicken and bakery discards that must be eaten within a day or two. Hot meal program providers seemed a good fit for these items but because of the individuality of these programs, there was no single point of reference for a business with such discards. Through the Food Bank Coalition, members share the food and information about it so it can go to programs that can best use it.

ReFED is a national organization that was formed to support non-profit and charitable organizations that distribute food to those who have difficulty purchasing enough food to avoid hunger, or who are food insecure (do not know where their next meal will come from). A food bank's role is only to provide emergency food, usually a three-day supply for an individual or a family that they can replenish once a month.

Wood Waste

Residents and commercial businesses have several alternatives for disposal or recycling of wood waste in Snohomish County. The Town of Darrington, PSCAA, Hampton Lumber and Snohomish County Solid Waste have worked collaboratively for the last 12 years to offer a free "alternative to burning" (ATB) program to valley and town residents, which includes wood waste recycling at the Hampton log yard and yard

debris recycling at the Darrington airport. The table below shows the volume of wood and yard debris collected through the ATB program.

Table 3. Organics Collected by the ATB Program

Year	Wood Debris (cubic yds)	Yard Debris (cubic yds)	Total Organics (cubic yards)
2008	574	0	574
2009	1,613	88	1,701
2010	1,159	22	1,171
2011	950	52	1,002
2012	1,432	42	1,473
2013	1,897	70	1,967
2014	1,091	20	1,111
2015	1,700	69	1,769
2016	2,433	254	2,687
2017	1,977	0	1,977
2018	1,347	0	1,347
2019	689	0	689

Source: Snohomish County records.

Burn bans may be issued by the County Fire Marshal for fire safety reasons, by PSCAA to protect air quality, and by the Washington State Department of Natural Resources to help reduce the risk of wildfires. Burning permits can be issued for locations outside the Urban Growth Areas (UGAs) that are also outside of established "no burn zones" and within fire protection districts of unincorporated Snohomish County. PSCAA has maintained a permanent ban on burning land clearing debris in Snohomish County since 2008 in accordance with WAC 173-425-040(5). Residential burning is allowed in some cases but may require a permit. Outdoor burning of treated wood and construction debris is illegal in all areas of Snohomish County

Clean wood waste is accepted for composting, recycling or energy recovery at the County's three transfer stations. Stumps should be no larger than 2 feet by 2 feet in size and without dirt.

Private companies play a role in the recycling of wood debris from residential and commercial businesses. Private recycling facilities process this resource into wood chips, mulch, landscape products, hog fuel and other materials.

The most recent information for wood waste (Ecology 2020a) shows that 55,377 tons of wood waste were recycled in 2017 and another 12,258 tons were used for energy recovery. The *2015-2016 Washington Statewide Waste Characterization Study*

(Ecology 2016) indicates that Snohomish County's waste stream contained 7.6% recyclable wood, or an estimated 38,700 tons in 2017. Hence, the recovery rate for wood was 63.6% in 2017 (see Table 2). Note that this recovery rate is not the same as a recycling rate since it includes diversion to energy recovery (which is not defined as recycling).

Agricultural Waste

In Snohomish County and in other parts of the state, there is little agricultural waste that is disposed as a solid waste and agricultural waste is not actually defined as municipal solid waste (MSW). Most types of agricultural waste, whether crop residues or livestock manures, can be returned to the land where these were generated, although in some cases composting or other processing may be necessary to avoid creating problems with this approach. A few materials, such as branches and stumps from orchards, cannot easily be handled on-site. Other types of agricultural waste may need to be removed for disease prevention purposes or because a specific farm may not have the capacity to absorb all of the material (such is the case at times with amounts of animal manures that exceed the nitrogen-holding capacity of a farm). Some of these materials are currently being processed at composting or other solid waste facilities.

Current Processing Facilities

Several processing facilities are currently operating in Snohomish County to handle organics and other materials, and those are briefly summarized here in a separate section because these facilities handle more than a single type of material. Facilities currently permitted to operate in Snohomish County include:

Bailey Compost – Bailey Compost is a composting facility located at the Bailand Dairy Farm. This facility composts cow manure from the dairy with yard debris, which is accepted for a fee at the facility.

Cedar Grove Compost – Cedar Grove began with a large composting facility in Maple Valley (King County) and has operated a facility in Everett since 2004. Both facilities use the "Gore Cover Technology" to compost yard debris, food waste, wood waste and agricultural organics.

Lenz Enterprises – Lenz Enterprises accepts yard debris, food waste and agricultural waste for composting. These materials are ground, mixed, and then composted in concrete bunkers. Air is pulled or pushed through the material as it is composted, depending on temperature levels and aeration needs. The compost is cured and then screened and blended with other materials.

Pacific Topsoils – Pacific Topsoils accepts a variety of materials for recycling, including yard debris, sod, brush, stumps, wood waste, soil, asphalt and concrete. Organic materials are composted at their Maltby location and used in a variety of topsoil blends sold by them.

Riverside Topsoils – This composting operation handles yard debris, landclearing debris, manures, sawdust and shavings to produce the topsoil blends and other products that they sell.

Thomas Farm Agricultural Composting – This composting operation mixes animal manure and bedding with sawdust and shavings to produce a composted mix ("Fertil Mulch") that is sold through another family business, Topsoils Northwest.

Table 4 shows a summary of the types of materials handled by these facilities and the annual amounts for 2018, which is the most recent year for which this data is available (Ecology 2020b). Not shown in the above list or in Table 4 are two wastewater treatment plants (Arlington and Granite Falls) that mix sawdust, shavings and hog fuel with biosolids to produce a soil amendment. Also not shown in Table 4 are facilities outside of Snohomish County that are handling Snohomish County materials. For instance, much of the wood waste collected in Snohomish County is only minimally processed and then shipped to out-of-county facilities for use as hog fuel. On the other hand, the quantities shown in Table 4 include many tons of materials from outside of the county, as Snohomish County is a net importer of organics due to the large number of processing facilities present in the county.

Table 4. Materials Handled by Snohomish County Composting Facilities

Facility	Agricultural Organics	Food Wastes	Land Clearing Debris	Wood Waste	Yard Debris	Yard Debris and Food Waste Mixed	Total Tons (2018)
Bailey Compost	X				X		17,000
Cedar Grove Compost	X	X		X	X	X	146,652
Lenz Enterprises	X	X			X	X	74,861
Pacific Topsoils			X		X		62,564
Riverside Topsoils	X		X	X	X		3,344
Thomas Farm	X			X			22,000

Note: 1. Agricultural waste includes vegetative materials, manures, and bedding.
Source: Washington State Department of Ecology Website, https://ecology.wa.gov/Waste-Toxics/Reducing-recycling-waste/Organic-materials/Managing-organics-compost (Ecology 2020b).

Current and Future Processing Capacity

RCW 70A.205.045 (7)(b)(iii) requires solid waste plans to address programs to separately collect yard debris and food waste if "there are adequate markets or capacity for composted yard waste and food waste within or near the service area to consume the majority of the material collected." While there are occasionally reports of marketing challenges for composted materials, the facilities in Snohomish County are generally

able to sell all of the materials produced. The current capacity for composting facilities in Snohomish County is adequate to handle the amounts of organics generated in Snohomish County as well as a significant amount of material from neighboring counties.

County Policy for Future Development of Processing Facilities and Markets

In recent years, there have been varying degrees of involvement by Snohomish County and other local governments in the development of processing facilities, markets and other systems to manage organics. Currently, it is anticipated that Snohomish County will have only a limited role in the future development of handling and management systems for organics. Although the County (and the cities as appropriate) will continue to set goals and encourage collection programs, this policy recognizes the ability of the private sector to find the proper balance for growth and economic sustainability in the future development of organics processing capabilities and markets.

PLANNING ISSUES

General Planning Issues

- Define what the Division organics program should look like.
- Collaborate and coordinate with the Washington Association of County Solid Waste Managers (WACSWM) and other regional partners/jurisdictions on the standardization, simplification and implementation of organics-related programs and initiatives.
- Investigate additional sources of funding for alternatives to burning and other organics-related programs.
- Contamination issues related to composting and food waste.

ALTERNATIVES

Alternative A – Encourage Food Waste Diversion through Education Efforts

Food waste is the largest single material remaining in the waste stream, and getting people to recognize that this is a resource, not a waste, will require a strong educational effort. The options for diverting food waste could be promoted to residential and commercial generators. The County could collaborate with the WSU Extension Service, Waste Management and Republic Services (through revenue sharing agreements) to develop outreach programs specifically related to food waste diversion.

Alternative B – Regional Coordination

The County should collaborate with regional partners, such as with King County's efforts in organics. Other options could include coordination with new ventures, such as the

Darrington Wood Innovation Center. Additionally, the County will work with WACSWM efforts to develop guidance on organics programs. Regional collaboration activities such as these could provide more consistent messaging about programs in the region, and hence less confusion among program participants, lower contamination levels and more effective programs overall. Regional collaboration could also lead to better results for new programs by combining the skills and resources of the agencies involved.

Alternative C – Reduce Contamination in Organics Collection Programs

The amount contamination in programs that collect mixed yard debris and food waste from residential sources, or food waste from commercial sources, has increased since these programs were initiated. The County could collaborate with the WSU Extension Service, Waste Management and Republic Services to develop outreach programs specifically related to various aspects of organics and contamination.

Alternative D – Define Division Program Priorities

The Division manages a variety of solid waste-oriented programs but has not recently collaborated on establishing outreach and education priorities specifically related to organics. Planning staff will convene and develop guidance for education priorities. SWAC could also be consulted in determining the priorities and providing guidance to the Division toward organic related activities.

RECOMMENDATIONS

The following recommendations are being made for organics programs:

O1) The County should participate in a regional effort to provide consistent messages for organics related initiatives.

O2) Organics program priorities need to be defined.

O3) Partner with the WSU Extension Service and revenue sharing agreement partners (if the funding exists) to provide education services that align with Division priorities.

Snohomish County would be the lead agency for most of these recommendations, although Recommendation O1 will involve other agencies and/or other county departments besides the Solid Waste Division.

The above recommendations will require additional expenditures for outreach materials and operating expenses.

All of these recommendations can be implemented soon or in the next few years.

REFERENCES

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Ecology 2020b. "WA State Composted Materials for 2018," spreadsheet from the website for the Washington Department of Ecology, https://ecology.wa.gov/Waste-Toxics/Reducing-recycling-waste/Organic-materials/Managing-organics-compost, May 25, 2020.

DRAFT

WASTE COLLECTION

SUMMARY

This technical memo describes the solid waste collection system in Snohomish County, including identification of policies, regulations, emerging issues, current garbage haulers, service areas and rates.

The recommendations made in this technical memorandum address the need for possible increased curbside collection and involvement of SWAC to address any waste collection issues.

BACKGROUND

Effective and efficient waste collection is an important aspect of a well-designed solid waste management system. Although a major goal of the *Snohomish County Comprehensive Solid and Hazardous Waste Management Plan* is to reduce waste volumes to the extent possible, waste collection services will continue to play a vital role for the foreseeable future.

This technical memorandum addresses garbage collection, which is regulated differently than collection of recyclable and compostable materials. Collection of other materials (such as recyclables, organics, moderate risk wastes and other special wastes) is addressed in the technical memorandums dealing with those materials.

Goals and Policies for Collection

Goals and policies specific to waste collection include:

- Goal 2: Ensure efficient services for a growing and changing customer base.
- Policy 2-3, Waste Collection: Provide a variety of equitable and efficient collection services to County residences and businesses that are in line with the Division's other goals and policies.
- Related Policies from other technical memorandums:
    - Policy 2-1, Recycling: Continue to offer and develop programs that encourage recycling.
    - Policy 2-2, Organics: Continue to promote and expand the collection and non-landfilling of yard debris, wood waste, and food waste.
    - Policy 2-4, Waste Transfer: Provide a variety of equitable and efficient waste transfer services to County residences and businesses that are in line with the Division's other goals and policies.

- Policy 2-7, Administration and Regulation: Ensure that administrative services and regulatory activities provide adequate support for policies and programs undertaken by the Division.

Regulations for Collection

The governing authorities for collection are the Washington Department of Ecology (Ecology), the Washington Utilities and Transportation Commission (UTC), Snohomish County, and the cities and towns within Snohomish County. The Tulalip Tribes of Washington have inherent authority to govern all activities related to solid waste management within the boundaries of the Tulalip Indian Reservation.

UTC Regulations: The UTC regulates solid waste collection companies under:

- Chapter 81.77 RCW, Solid Waste Collection Companies: This law establishes the regulatory authority for solid waste collection companies and the procedures and standards with which they must comply.
- Chapter 35.21 RCW, Cities and Towns: This law establishes the authority of towns and cities in regard to solid waste and the procedures and standards with which they must comply.
- Chapter 480-70 WAC, Rules for Solid Waste and/or Refuse Collection Companies: This chapter establishes standards for public safety, fair practices, reasonable charges, nondiscriminatory application of rates, adequate and dependable service, consumer protection, and compliance.

County Regulations: Title 7 of the Snohomish County Code has several provisions that affect collection programs. This title also addresses illegal dumping and littering. Section 7.42 establishes minimum service levels for residential (single family and multi-family) recycling in the unincorporated areas. Single family garbage collection services in the unincorporated areas are also required to include weekly mini-can and other weekly service levels, monthly mini-can and one can service levels, and a recycling-only option.

One of the more important provisions of the Snohomish County Code establishes "flow control" authority for the County, which requires that waste generated in the County be disposed only at sites within the Snohomish County solid waste system (see Section 7.35.125). This provision also requires that clearly-marked containers for garbage and recycling be used at construction sites and other locations, to help ensure that materials collected as recyclables go to reclamation facilities rather than landfills. This helps ensure that landfill-disposed materials are properly handled and disposed of within the Snohomish County solid waste disposal system. SCC 7.35.125 is described in more detail in the Disposal technical memo.

Many of the cities in Snohomish County have adopted codes that require homes and businesses to subscribe to garbage collection services and to keep their properties free of junk accumulations and related problems.

Municipal Authority: Four forms of collection services are allowed by State law:

- **Certificated**: With this collection method, the municipality is not actively involved in the management of garbage collection. Instead, it allows the UTC-certificated hauler to provide service. This is the only form of waste collection available in the unincorporated areas of the county.
- **Municipal**: This method utilizes municipal employees to collect waste.
- **Licensed collection**: This method applies to municipalities that require private collectors to have both a city-issued license as well as a UTC Certificate. This gives the municipality some measure of control over collection services.
- **Contracted collection**: A municipality can enter into a contract with a private hauler to provide waste collection services.

Only cities and towns are authorized to engage in the last three options (except that Snohomish County is allowed to contract for residential curbside recycling services in the unincorporated areas):

EXISTING PROGRAMS AND ACTIVITIES

Waste Haulers

One municipality collects waste within their city limits (Marysville). Four private haulers perform collection for the rest of Snohomish County: Republic Services, Rubatino Refuse Removal, Sound Disposal, and Waste Management. Their contact information follows:

Republic Services Inc
54 S. Dawson St.
Seattle, WA 98134
(206) 332-7700
www.republicservices.com

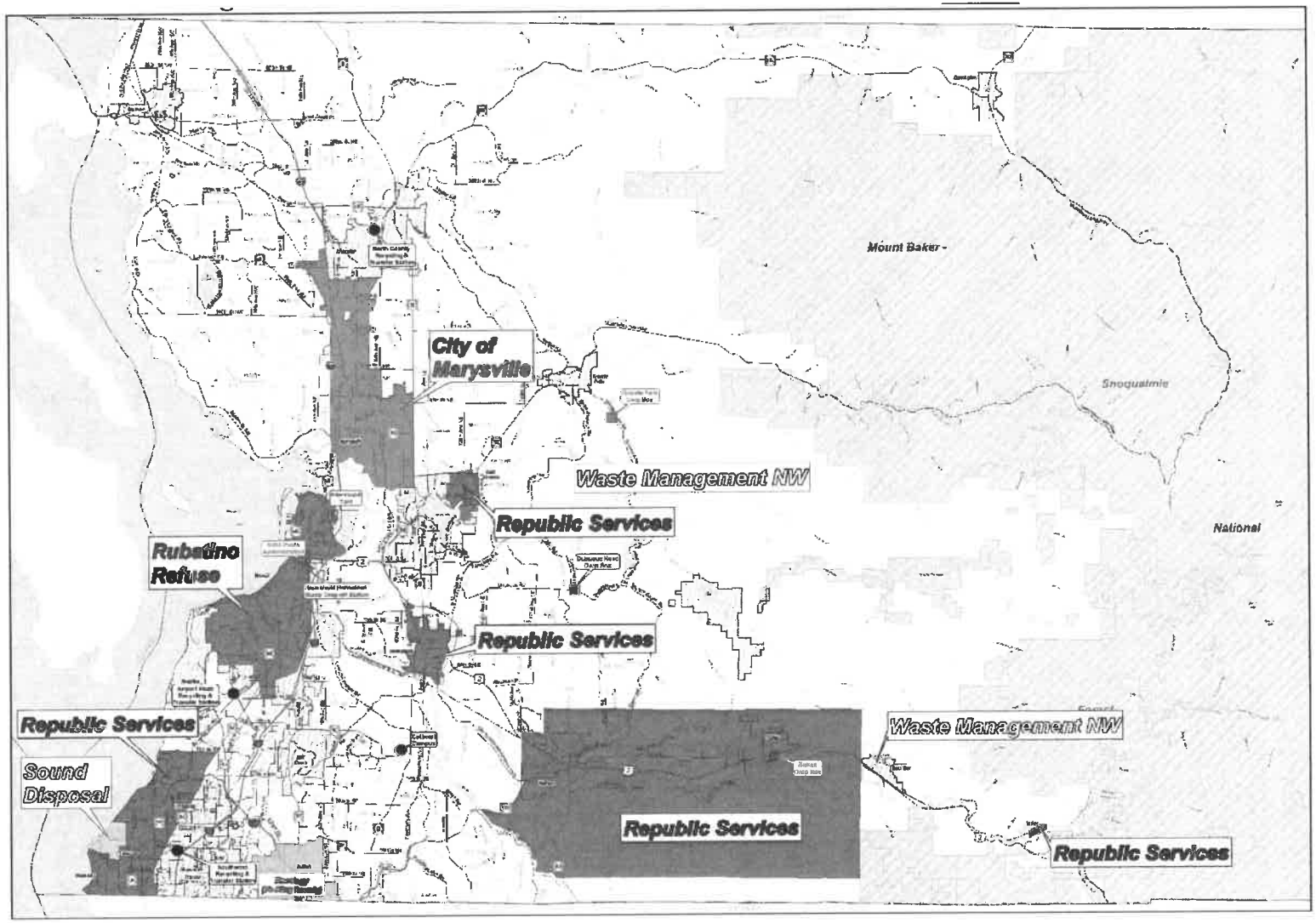
Rubatino Refuse Removal Inc
P.O. Box 1029
Everett, WA 98206-1029
(206) 259-0044
www.rubatino.com

Sound Disposal Inc
8421 - 202nd SW
P.O. Box 487
Edmonds, WA 98020-0487
(206) 778-2404
www.sounddisposalinc.com

Waste Management Northwest
720 4th Ave.
Kirkland, WA 98033
(425) 823-6164
www.wmnorthwest.com

A fifth private hauler, Recology, collects waste in Bothell, but since most of Bothell is in King County, the waste is brought there instead of being part of Snohomish County's system (pursuant to an agreement between the city and the two counties, see Appendix G for more details). Figure 1 shows the service areas for each collection service (as of January 2021). Table 1 lists the form of collection service found in each municipality and notes the ten municipalities where collection is mandatory.

Figure 1
Waste Collection Areas in Snohomish County



Source: Snohomish County,

Table 1. Waste Collection Service Arrangements in Snohomish County		
Municipality	**Form of Service**	**Mandatory Collection**
Arlington	Contract	Yes
Bothell (part)	Contract	Yes
Brier	UTC Certificate	No
Darrington	Contract	No
Edmonds	UTC Certificate	No
Everett	UTC Certificate	No
Gold Bar	UTC Certificate	No
Granite Falls	Contract	No
Index	UTC Certificate	No
Lake Stevens	UTC Certificate/Contract	Yes
Lynnwood	UTC Certificate	Yes
Marysville	Municipal	Yes
Mill Creek	Contract	No
Monroe	Contract	Yes
Mountlake Terrace	Contract	Yes
Mukilteo	Contract	No
Snohomish	Contract	Yes
Stanwood	Contract	Yes
Sultan	Contract	Yes
Woodway	UTC Certificate	No

Frequency of Collection

Marysville and the four private haulers in Snohomish County offer weekly collection options for residential garbage collection for the 20 cities and towns in the County. In addition, monthly service is provided in more than half of the cities and towns and every other week services are provided in eight of the cities. The monthly and every other week service is offered at a lower price than the weekly service rate for the same size can. This provides incentive for residents to reduce waste and encourages recycling and composting.

Tiered Rates Based on Can Size

Marysville and all four private haulers in Snohomish County offer tiered rates based on can size. All areas except Marysville offer a min-can (20-gallon) option. Providing discounted rates for smaller can sizes also encourages waste reduction, recycling and composting.

Table 2 lists the haulers, their service districts, and each district's area (square miles), population, and population density.

Table 2. Waste Collection Service Providers in Snohomish County			
Service Area	Area (square miles)	Population[1]	Density (people per sq. mi.)[2]
Municipal Services			
Marysville	20.47	69,180	3,379
Recology			
Bothell (part)	6.4	18,670	2,917
Republic Services Inc			
Edmonds	9.04	42,470	4,697
Lynnwood	10.12	40,690	4,021
Monroe	5.71	19,800	3,467
Sultan	3.35	5,530	1,652
Woodway	1.10	1,360	1,234
Uninc. Snohomish County	NA	NA	205
Rubatino Refuse Removal Inc			
Everett	34.25	112,700	3,291
Uninc. Snohomish County	NA	NA	205
Sound Disposal Inc			
Edmonds	9.04	42,470	4,697
Waste Management NW			
Arlington	12.28	20,600	1,678
Brier	2.28	6,760	2,971
Darrington	2.13	1,420	666
Edmonds	9.04	42,470	4,697
Gold Bar	1.45	2,195	1,517
Granite Falls	2.16	4,425	2,046
Index	0.19	175	921
Lake Stevens	9.19	34,150	3,716
Mill Creek	4.75	20,590	4,331
Mountlake Terrace	3.98	21,660	5,439
Mukilteo	6.14	21,360	3,481
Snohomish	3.51	10,240	2,916
Stanwood	3.00	7,125	2,372
Uninc. Snohomish County	NA	NA	205

Notes: All figures are estimates for the year 2020, except the population density for the unincorporated area, which is based on a 2019 figure for the total area of the county (2,087.3 sq. mi.).

1. Population data is from the Office of Financial Management (OFM) April 1, 2020 Population of Cities, Towns and Counties. Figures are not available for the parts of the unincorporated areas that are serviced by each hauler.
2. The population density figures shown for the unincorporated areas for Republic Services, Inc., Rubatino Refuse Removal, Inc. and Waste Management Northwest are for all of Snohomish County, and are not specific to the service area for each hauler.

Biomedical Waste

The State's definition of biomedical waste (RCW 70A.228.010) preempts that of local health jurisdictions and includes animal waste, biosafety level 4 disease waste, "cultures and stocks," human blood and blood products, pathological waste and sharps (syringes).

The UTC regulates transporters of biomedical wastes. Its regulations also allow solid waste haulers to refuse to haul wastes that they observe to contain infectious wastes as defined by the UTC. The UTC has issued statewide franchises to Stericycle Inc and Waste Management of Washington to transport biomedical wastes. Stericycle Inc collects biomedical and infectious wastes generated in Snohomish County. It sends pathological and trace chemotherapy waste as well as medicine to its incineration facility in Salt Lake City, Utah. The other biomedical wastes are sent to its facility in Morton, Washington for autoclave heat treatment (Stericycle 2020). In addition, Waste Management of Washington collects biomedical waste in all of Snohomish County (along with all of Washington). The waste is taken to their processing plant in South Seattle for autoclave treatment.

The list of potential generators of biomedical waste includes medical and dental practices, hospitals and clinics, veterinary clinics, farms and ranches, and individual residences. There is no definitive estimate of the quantity of syringes (sharps) and other biomedical wastes that are improperly disposed locally, but haulers in other areas often report seeing syringes sticking out of garbage bags. This problem could be expected to increase without proper disposal education due to an aging population and additional medications that have recently become available for home use (e.g. for HIV, arthritis, osteoporosis and psoriasis).

PLANNING ISSUES

General Issues

Current planning issues related to waste collection include:

- How to increase curbside collection participation.

ALTERNATIVES

Alternative A – Increase Curbside Collection Participation

During the COVID-19 pandemic response, citizens were encouraged to quarantine and stay safe and healthy. Snohomish County solid waste facilities along with G-certificated haulers continued to operate as essential services. With many people confined to their homes, the public cleaned out many of their garages and houses. This created a spike in non-essential and non-putrescible garage. Many citizens that did not subscribe to

curbside collection service, inundated County solid waste facilities to dispose of their unwanted material. With reduced facility hours and other restrictions, this increased the wait and processing times. As a resolution to having to wait in line, County staff encouraged residents to subscribe to curbside garbage and recycling collection service. Many people took advantage of this service.

Alternative B – Solid Waste Advisory Committee (SWAC) Involvement

The current collection system in Snohomish County is robust and is functioning well to provide efficient garbage and recycling collection services to area residents. If any of the G-certificated haulers for Snohomish County have issues related to waste collection, engaging the SWAC could be an effective way to address the issues.

CONCLUSIONS

The current collection system has adequate capacity to handle the anticipated waste stream for years to come and is currently functioning well.

RECOMMENDATIONS

The following recommendations are being made for the solid waste collection system:

C1) Strategize and collaborate with G-certificated haulers on how to increase curbside collection participation.

C2) Engage SWAC for waste collection issues.

Snohomish County and the haulers would work collaboratively to engage in discussions related to Recommendations C1 and C2.

TRANSFER

SUMMARY

This technical memorandum discusses the existing municipal solid waste transfer system in Snohomish County, identifies relevant planning issues, and develops and evaluates alternative transfer system strategies.

The recommendations made in this technical memo address the potential future need for additional transfer capacity and the need to evaluate the vactor facility's operation and capacity.

BACKGROUND

The transfer component of a solid waste system involves consolidating numerous small loads of waste into larger containers or vehicles that are more economical to transport to a final disposal facility. Transfer stations in Snohomish County have the ability to receive waste and compact it into shipping containers for transport by railroad to the Roosevelt landfill in Klickitat County, Washington, owned and operated by Republic Services. County transfer stations offer extensive opportunities to drop off a variety of recyclable materials, and in some locations, the ability to collect limited types of household hazardous wastes (HHW).

Smaller facilities, generally without waste compaction and with fewer recycling opportunities, are typically used in rural or less densely populated areas where waste flows do not justify the large capital investment for a transfer station. In Snohomish County, these are called drop box (DB) sites, since roll-off containers or "drop boxes" are the type of containers used to receive the wastes.

Goals and Policies for the Transfer System

Goals and policies specific to the solid waste transfer system include:

- Goal 2: Ensure efficient services for a growing and changing customer base.
- Policy 2-4, Waste Transfer: Provide a variety of equitable and efficient waste transfer services to County residences and businesses that are in line with the Division's other goals and policies.
- Related policies from other technical memorandums:
  - Policy 2-1, Recycling: Continue to offer and develop programs that encourage recycling.
  - Policy 2-2, Organics: Continue to promote and expand the collection and non-landfilling of yard debris, wood waste, and food waste.

Regulations for the Transfer System

The following regulations apply to transfer facilities:

- State regulations governing transfer stations and drop boxes are found in WAC 173-350-310 of the Solid Waste Handling Standards.
- Snohomish County has a flow control ordinance requiring all solid waste generated in the county to be delivered to a facility located in the county (SCC Chapter 7.35).

EXISTING PROGRAMS AND ACTIVITIES

The solid waste transfer system for Snohomish County consists of three large transfer stations: Airport Road Recycling and Transfer Station (ARTS), North County Recycling and Transfer Station (NCRTS), and Southwest Recycling and Transfer Station (SWRTS). A fourth station, the Cathcart Way Recycling and Transfer Station (CWRTS), is opened when one of the other stations is temporarily closed for maintenance or repair.

There are also three drop box sites (DBs) located in Granite Falls, Sultan, and Snohomish. These DBs are used almost exclusively by self-haul customers. Altogether, the DBs handled only 2.9% of the County's solid waste in 2019. Figure 1 shows a map of the County's solid waste transfer facilities.

At the transfer stations, wastes are compacted into shipping containers and trucked to the County's Intermodal Yard in Everett, where they are placed on a train and hauled by Burlington Northern Santa Fe (BNSF) to the Republic Services Regional Landfill near Roosevelt (Klickitat County), Washington. The Intermodal Yard is owned by the County and leased to Republic Services. The shipping process is discussed in more detail in the Disposal technical memorandum.

Transfer Stations

The County's four transfer stations accept waste from municipal, commercial, and self-haulers. Fees for garbage disposal at these stations currently (2021) are a minimum of $20 (including tax) for quantities up to 360 pounds, and $105 per ton plus tax for quantities over 360 pounds. Some wastes require special preparation prior to acceptance at County facilities and other wastes are not accepted at all (see Special Wastes section below).

The four transfer stations are described below and the tonnages of waste and recyclables they handled in 2019 are shown in Table 1.

Figure 1
Snohomish County Solid Waste Facilities

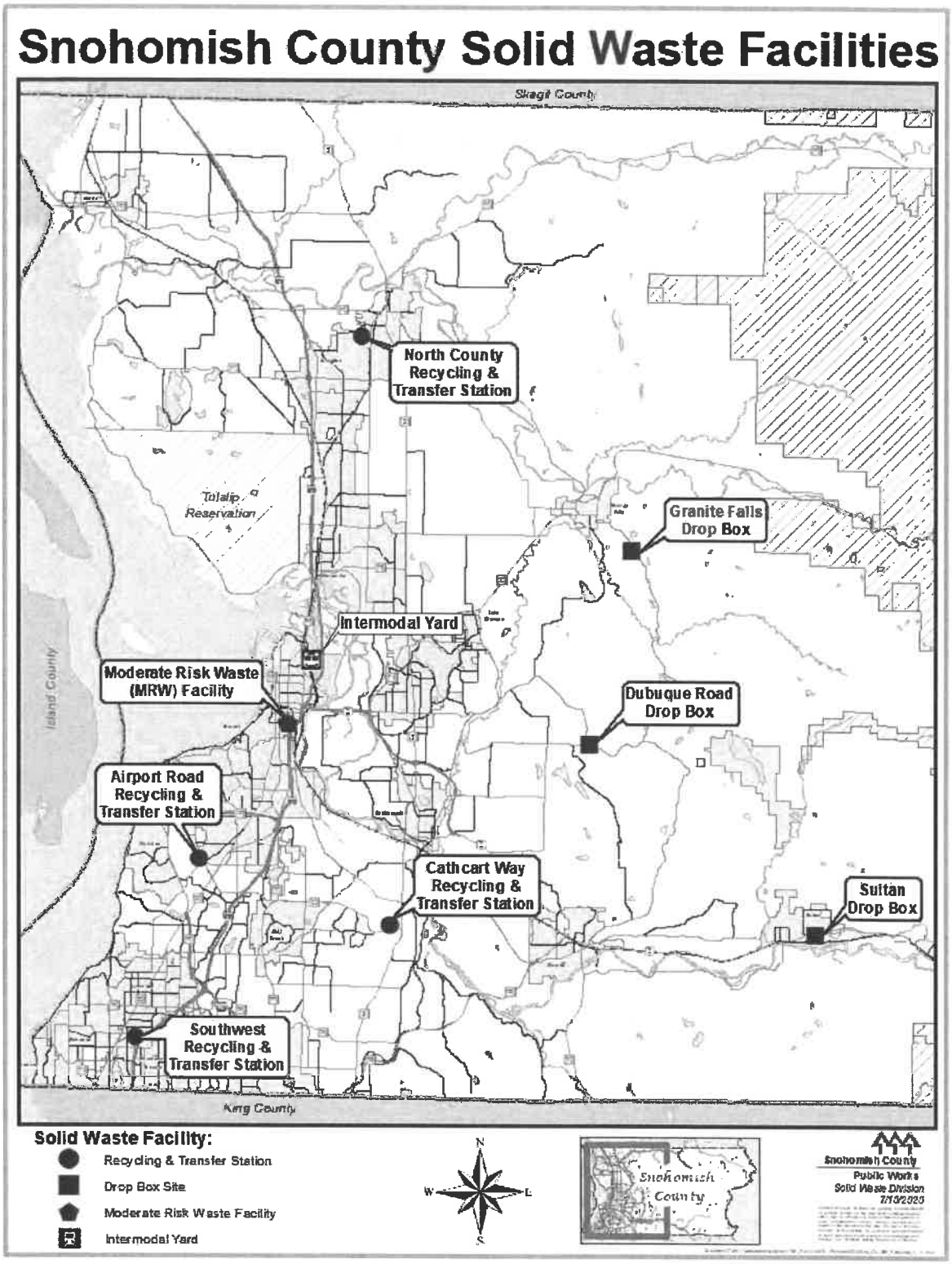


Table 1. Tons of Wastes and Recyclables Received at Transfer Stations and DBs (2019)								
	Wastes				Recyclable Materials			
Facility	Solid Waste (MSW)	Construc-tion and Demo.	Treated Wood	Other (Furniture)	Recycla-bles[1]	Wood	Yard Debris	Total Tons (2019)
ARTS	211,237	32,155	456	1,507	2,845	1,785	5,288	255,273
CWRTS	18,476	96	92	424[2]	480	NA	NA	19,568
Dubuque DB	5,087	624	46	234	804	45	NA	6,840
Granite Falls DB	2,471	263	18	102	304	18	NA	3,176
NCRTS	98,520	15,779	129	516	1,898	545	1,124	118,511
Sultan DB	5,999	718	111	94	674	110	NA	7,706
SWRTS	115,190	27,539	7	3,379	2,223	1,005	10,967	160,310
Total Tons	456,980	77,174	859	6,256	9,228	3,508	17,379	571,384

Notes: 1. "Recyclables" include cardboard, mixed paper, glass, aluminum cans and ferrous metals.
2. For CWRTS, the figure shown for "Other" is junk vehicles, but for all other sites it is furniture.
NA = Not Applicable, that material is not collected separately at that facility.

Source: Annual reports to Ecology, by Snohomish County. Figures shown are outbound tonnages.

Airport Road Recycling & Transfer Station (ARTS)
10700 Minuteman Drive, Everett, WA 98204

The $25 million ARTS facility opened in October 2003. Located on a 10-acre site, it has a 55,000 square foot tipping floor and a design capacity of about 1,800 tons/day and 649,800 tons/year. It can handle 180 tons per hour, 1,100 vehicles per day, and 140 vehicles per hour.[1] In 2019, 67.5% of its tonnage was from commercial haulers.

Cathcart Way Recycling & Transfer Station (CWRTS)
8915 Cathcart Way, Snohomish, WA 98296

The CWRTS facility opened in 2003 and underwent significant upgrades in 2009, including new scales and a new compactor. Located on a 2.3-acre site, it has a 4,300 square foot tipping floor and a design capacity of about 600 tons/day and 100,000 tons/year. It can handle 60 tons per hour, 100 (commercial) vehicles per day, and 10 vehicles per hour. CWRTS is open only on an intermittent basis. It serves customers with a hydraulic or mechanically unloading vehicle that have been diverted from other Snohomish County transfer stations when they are closed for maintenance or repair.

Abandoned vessels, including boats, recreational vehicles (RVs), travel trailers and vehicles impounded by law enforcement agencies are accepted for recycling at CWRTS. Citizens looking to dispose of RVs or boats may contact the Environmental

[1] Station size and design capacity figures are from "*Evaluation of Solid Waste Facility Needs Technical Memorandum (HDR 2018).*

Cleanup Team to schedule an appointment for the disposal/recycling of those items. These vehicles are weighed and charged the current solid waste disposal fee per ton. County staff dismantle vehicle chassis for recycling.

There is also a vactor facility at CWRTS. This facility currently operates five days per week and accepts a variety of liquids and semi-liquid materials for treatment. This facility does not handle septic or sewage-related wastes, and many of the materials it can accept require pre-approval and testing. Information regarding rates/fees, authorization requirements and acceptance policy/waste restrictions may be found at the following link:

https://www.snohomishcountywa.gov/5430/Vactor-Waste-Decant-Facility

North County Recycling & Transfer Station (NCRTS)
19600 63rd Avenue NE, Arlington, WA 98223

NCRTS opened for operations in 1986. Located on a 9-acre site, the station has an older design with push pits and a 6,000 square foot floor. NCRTS has peak capacities of 600 tons per day, 60 tons per hour, 650 vehicles per day, and 110 vehicles per hour. In 2019, 66.2% of its tonnage was from commercial haulers.

Southwest Recycling & Transfer Station (SWRTS)
21311 61st Place W, Mountlake Terrace, WA 98043

The $28 million SWRTS facility opened in September 2004. Located on a 9-acre site, it has a 37,500 square foot tipping floor and a design capacity of about 1,200 tons/day and 260,000 tons/year. SWRTS has peak capacities of 120 tons per hour, 1,100 vehicles per day, and 140 vehicles per hour. In 2019, 56.9% of its tonnage was from commercial haulers.

Drop Boxes (DBs)

Two DBs, in Gold Bar and Oso, were closed in early 2009, leaving three DBs in Snohomish County. Self-haulers currently utilize DBs at three locations:

- Granite Falls DB: 7526 Menzel Lake Road, Granite Falls, WA, 98252
- Dubuque Road DB: 19619 Dubuque Road, Snohomish, WA, 98290
- Sultan DB: 33014 Cascade View Drive, Sultan, WA, 98294

DBs allow a maximum load of 5 cubic yards per customer. As of 2021, the minimum cost to dispose of up to one cubic yard of material is $20, and each additional cubic yard is $20. The current tonnages of waste delivered to the drop box sites are shown in Table 1.

SPECIAL WASTES

Chapter 173-303 WAC, the Dangerous Waste Regulations, defines special waste as a type of dangerous (i.e., hazardous) waste. However, historically the term "special waste" has been widely used in Washington State to refer to problematic solid wastes. For the purpose of this Plan, special waste refers to special types of solid waste, a usage that is consistent with Chapter 7.35 of the Snohomish County Code and also with other solid waste management plans in Washington State. Some special wastes have some similarities to "normal" municipal solid waste and can be managed in a similar fashion at solid waste facilities but many special wastes require additional precautions or special handling procedures to avoid creating elevated risks to the environment or to human health and safety.

The County's waste acceptance policy is updated periodically to reflect evolving programs and regulations. This policy identifies the various wastes accepted at County solid waste facilities, notes those that require special preparation, and lists options for handling wastes that are not accepted at County facilities. Any changes in the waste acceptance policy take precedence over the information in this Plan. There are five broad categories of special waste:

- Wastes not accepted at County facilities:
  - Air conditioners
  - Asbestos containing material
  - Bio-hazardous/medical waste (all types)
  - Canisters and tanks
  - Contaminated soils
  - Dehumidifiers
  - Electronics (E-waste)
  - Heat pumps
  - Industrial ash
  - Liquid waste
  - Major motor vehicle components
  - Pharmaceutical waste (sharps/needles)
  - Refrigerators/freezers
  - Rodent-infested loads
  - Septage or septic tank waste.
  - Additional wastes identified in Snohomish County Code 7.41.050.

- Wastes requiring special preparation for acceptance at County facilities:
  - Ash
  - Asphalt, brick, concrete, dirt, sod, sand, gravel, and rocks
  - Canopies
  - Contaminated soils not designated as hazardous waste
  - Dead animals (less than 10 pounds)
  - Fecal matter from pets
  - Grease-trap solids

  - Latex paint (open, dried-out cans accepted at County at transfer stations or DBs; liquid paint accepted at the Household Hazardous Waste Facility)
  - Sewer treatment plant screenings and grit
  - Tires
  - Yard debris/clean wood debris

- Certain wastes are accepted for recycling only (i.e., not for disposal):
  - Large household appliances not containing Freon or chlorinated fluorocarbons
  - Automotive products including lead acid batteries, motor oil and filters, and antifreeze, with quantity limits
  - Fluorescent tubes, high intensity discharge lamps, and compact fluorescent bulbs
  - Lawn mowers (fluids drained, battery and extra plastic removed)

- E-waste, sharps (syringes) and pharmaceuticals are handled by product stewardship programs funded and managed by the manufacturers of the original products.

- Household hazardous wastes and business-generated hazardous wastes are prohibited at the transfer stations and DBs but may be accepted at the Household Hazardous Waste Facility.

In addition to the above, there are size restrictions for the wastes accepted at NCRTS and the drop box sites. At these facilities, items must be less than six feet long or 25 square feet in area, except sofas, appliances, mattresses, doors, carpets, and rugs.

PLANNING ISSUES

Near-Term Planning Issues

Current issues related to the solid waste transfer system include:

- Waste disposal tonnages in Snohomish County and across the United States decreased sharply in 2008 and 2009 due to the economic downturn. As the economy recovered, waste tonnages have grown but are still within the capacity of Snohomish County facilities (see Table 2). The one possible exception currently is the Dubuque Road DB (see next bullet), which is currently struggling with traffic backups onto a local main road. Previous projections did not foresee any other major problems with capacity that could not be addressed with operational changes (such as expanding hours of operation or other steps). It remains to be seen, however, whether the impact of the 2020 COVID-19 pandemic will create another recession and another drop in waste tonnages, or if the pandemic will lead to an increase in tonnages (as it appears to be doing in the short term).

Table 2. Transfer Station Capacity Data								
	ARTS		CWRTS		NCRTS		SWRTS	
Year	Peak Capacity	2019 Actual	Peak Capacity	2019 Actual	Peak Capacity	2019 Actual	Peak Capacity	2019 Actual
Average Tons per Day	1,800	818	NA	62	600	324	1,200	439
Average Vehicles per Day	1,100	600	NA	18	650	322	1,100	467

Notes: NA = Not Available.
The average tons per day figures do not include "recyclables" (see Table 1), since those are delivered to separate containers at the transfer stations.

Sources: Snohomish County records and "*Evaluation of Solid Waste Facility Needs Technical Memorandum (HDR 2018)*.

- A recent study (Parametrix 2020) evaluated several alternatives for expanding the Dubuque Road DB site to increase waste handling capacity and relieve weekend traffic issues. A significant impediment to upgrading the site, however, is the proximity of a City of Everett water transmission line and maintenance easement.
- Replacement of a compactor at NCRTS will be completed in 2021.
- The operation and use of the vactor decant facility needs to be reviewed, including an investigation into customer use, capacity issues, rates, facility configuration and potential improvements.

Long-Term Planning Issues

Current long-term issues related to the solid waste transfer system include:

- Expanded hours of operation at the transfer stations could provide additional system transfer capacity.
- Expansion of the Intermodal Yard onto adjacent County-owned properties if additional capacity is needed.

ALTERNATIVES

Alternative A – Expand Operational Hours at ARTS and SWRTS

If solid waste facility capacity ever became an issue, expanding the hours of weekday operation at ARTS, SWRTS and NCRTS would give staff extra time to compact MSW and load shipping containers (HDR 2018, Scenario 3). This could be combined with expanding weekday hours for receiving MSW, allowing more time for commercial loads

to be delivered. Expanding weekend hours could reduce waiting times by spreading traffic volumes over more hours, an important customer benefit.

While a local noise ordinance limits the hours of operation at SWRTS, the other two primary transfer stations (ARTS and NCRTS) have no such limitations and could theoretically operate 24 hours per day and seven days per week. Expanding the hours of operation will likely require the hiring of additional staff.

Alternative B – Expand the Dubuque Road Drop Box Facility

A study completed in late 2020 evaluated options for an enhanced Dubuque Road DB facility to serve the growing population in central Snohomish County. The results of that study and other options are being evaluated.

Alternative C – Evaluate Vactor Decant Facility Use, Capacity and Operations

Use of the vactor facility is at an all-time high and there are several issues that need to be reviewed and potentially adjusted, such as grit storage, the physical facility footprint, capacity with the Silver Lake Water District, user fees, waste restrictions and automated processing of vactor-related transactions.

RECOMMENDATIONS

The following recommendations are being made for the solid waste transfer system.

T1) Upgrade the Dubuque Road DB to meet the demands of capacity and population growth in central Snohomish County.

T2) Expand Intermodal Yard if additional capacity is needed there.

T3) Evaluate the use and operation of the vactor decant facility.

Snohomish County is the lead agency for these recommendations. Implementing these recommendations will require additional Solid Waste Division staff time. Conducting a cost-benefit analysis to evaluate revenues, costs, tonnages, greenhouse gas emissions and other transfer system-wide factors will help to determine the timing of implementation.

REFERENCES

HDR 2018. HDR, *Task 4 – Evaluation of Solid Waste Facility Needs Technical Memorandum*, May 25, 2018.

Parametrix 2020. Parametrix, *Dubuque Road Drop Box Expansion Planning*, December 2020.

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DRAFT

DISPOSAL

SUMMARY

This technical memorandum discusses existing programs and facilities, identifies relevant planning issues, and develops and evaluates alternative strategies for disposal of municipal solid waste (MSW).

The recommendations made in this technical memorandum address the appropriate uses of closed landfills and continued enforcement of flow control.

BACKGROUND

Where and how waste is disposed affects public health and the environment, today and in the future, making the final disposition of waste a critical element of this plan. This memorandum discusses the County's current garbage disposal system and touches on goals for waste prevention and diversion. Current prevention and diversion methods (such as recycling and composting) are addressed in other memoranda.

Goals and Policies for Disposal

Goals and policies specific to disposal include:

- Goal 2: Ensure efficient services for a growing and changing customer base.
- Policy 2-5, Waste Disposal: Continue to evaluate and monitor waste disposal options and services that meet customer needs and are in line with other goals and policies of the Solid Waste Comprehensive Plan.
- Related Policies in other technical memoranda:
  - Policy 2-1, Recycling: Continue to offer and develop programs that encourage recycling.
  - Policy 2-2, Organics: Continue to promote and expand the collection and non-landfilling of yard debris, wood waste, and food waste.
  - Policy 2-4, Waste Transfer: Provide a variety of equitable and efficient waste transfer services to County residences and businesses that are in line with the Division's other goals and policies..
  - Policy 2-7, Administration and Regulation: Ensure that administrative services and regulatory activities provide adequate support for policies and programs undertaken by the Division.

- Policy 2-8, Moderate Risk Waste: Continue efforts to reduce the generation and toxicity of moderate risk waste and to ensure that convenient, cost effective and sustainable options for its safe management are available.

Regulations for Disposal

Regulations specific to disposal include:

- Chapter 70A.205 RCW This law addresses several aspects of waste disposal, including inert waste landfills, disposal facility siting and permitting, reserve accounts for landfill, and other requirements.
- WAC 173-350-320 provides the rules for solid waste handling standards for piles used for storage or treatment.
- WAC 173-350-400 – This rule establishes standards for limited purpose landfills.
- WAC 173-350-410 – This rule establishes standards for inert waste landfills and facilities that use inert waste as a fill component. This regulation is applicable to facilities with a total capacity greater than 250 cubic yards.
- Chapter 173-351 WAC This rule establishes minimum statewide standards for municipal solid waste landfills.
- Snohomish County Code Chapters 7.35 and 7.41 – Changes were made to the County Code in early 2011 to promote recycling and to ensure that materials destined for landfill disposal are properly handled and are disposed in the Snohomish County solid waste system. These are discussed in detail in a later section on Impact of Flow Control.
- Snohomish County, King County, and the City of Bothell have reached an agreement regarding disposal of waste collected in Bothell. Waste collected within the city limits established prior to January 1, 2011, will remain under King County jurisdiction for disposal. Any annexations after January 1, 2011 by the City of Bothell of Snohomish County lands will fall under Snohomish County jurisdiction for disposal. See Appendix G for copies of interlocal agreements.

EXISTING PROGRAMS AND ACTIVITIES

Solid waste that is not recycled or otherwise diverted is compacted into shipping containers at the transfer stations and hauled by truck to Snohomish County's intermodal rail facility in Everett. The facility is operated by Regional Disposal Company (now Republic Services) through a contract with Snohomish County. The waste is hauled by the Burlington Northern-Santa Fe (BNSF) railroad to the Roosevelt Regional Landfill in Klickitat County, Washington. The landfill began operations in 1991 and has an on-site landfill gas-fired power plant that generates renewable natural gas that the Klickitat Public Utilities District sells to Puget Sound Energy.

Table 1 lists the active solid waste sites located in Snohomish County. As of early 2020, the only active landfills in Snohomish County were inert waste landfills. In addition to the four active sites shown in Table 1, there were eight sites with piles of inert waste that were exempt from permitting and four sites using piles for storage or treatment.

Table 1. Active Solid Waste Sites in Snohomish County

Site Name	City	Type
AAA Monroe Rock Corp	Snohomish	Inert Waste Landfill
Cemex Inert Waste Landfill, Everett	Everett	Inert Waste Landfill
Everett Water Filtration Plant	Sultan	Inert Waste Landfill
Woods Creek Quarry Inert Waste Landfill	Monroe	Inert Waste Landfill

Source: Ecology website, see https://ecology.wa.gov/Research-Data/Data-resources/Solid-waste-recycling-data (Ecology 2020).

Snohomish County Public Works owns five solid waste landfills: the Bryant Solid Waste Landfill, Cathcart Solid Waste Landfill, Lake Stevens Solid Waste Landfill, Lake Goodwin (Warm Beach) and the Sisco Landfill. All of these landfills show decreasing landfill gas production, ground water contamination, and surface water contamination. Snohomish County Parks and Recreation owns the McCollum/Emander Solid Waste Landfill, but its post-closure care is the responsibility of Snohomish County Public Works.

Active solid waste facilities such as drop boxes, transfer stations, and moderate risk waste facilities are addressed in other technical memoranda. The Vactor Decant Facility at 8915 Cathcart Way in Snohomish accepts waste from cleaning out storm drains and catch basins.

Additional information about facilities, including closed landfills no longer requiring monitoring, can be requested from the Snohomish Health District.

SITING OF DISPOSAL OR RECYCLING FACILITIES

Solid waste disposal, transfer, recycling, and composting facilities are often not welcomed as potential neighbors. Nevertheless, they are necessary for public health and implementation of public policy. Therefore, the ability to site, construct, and operate these types of facilities must be preserved. While environmental and land use controls are not a responsibility of the solid waste system, the Solid Waste Management Division will cooperate with those agencies and jurisdictions having land use and environmental control powers. This will help ensure that such facilities can be located in a manner that is fair and equitable for those who will be impacted by their location, as well as those who utilize or benefit from the facilities.

Siting criteria in state solid waste regulations were developed in the 1980s to address the siting of new MSW landfills. Because recyclables are (from a regulatory standpoint) a form of solid waste, recycling facilities must in general meet the same siting requirements as solid waste handling and disposal facilities. Appendix C provides more information about the siting process for solid waste facilities.

IMPACT OF FLOW CONTROL

Changes made in early 2011 to Snohomish County Code 7.35 and 7.41 were known as "flow control" because they control the handling and ultimate disposal of solid waste generated within Snohomish County. The Code now further clarifies the requirement that wastes generated in Snohomish County go to transfer facilities in the County. The purpose of the change was:

- to provide transparency about which materials are being recycled and which materials are being disposed at a landfill;
- to promote recycling; and
- to ensure that landfill-disposed materials are properly handled and are disposed in the Snohomish County solid waste system.

Disposal fees for waste generated in Snohomish County pay for the ongoing monitoring of six closed landfills, operation of seven waste transfer facilities, illegal dumping cleanup, recycling and program planning, and operation of a household hazardous waste drop-off station. The County's solid waste system benefits all residents and businesses in Snohomish County and receives no local taxes or general fund revenues. It is important to keep revenue associated with waste generated in Snohomish County in the local solid waste system (through flow control) to cover the cost of these community programs and services.

Key highlights of the clarifications in the code include:

- Commercially provided containers for hauling non-recyclable waste for landfill disposal must be marked with the words "solid waste for disposal," "landfill," or "garbage." These containers must be transported to a Snohomish County transfer station. It should be noted that state law restricts the commercial hauling of waste for landfill disposal to UTC-certificated waste haulers and city contracted haulers. Others can "self-haul" their own waste, including businesses and residents, as well contractors who can self-haul their own construction and demolition wastes for landfill disposal. In all cases, the waste must go to Snohomish County transfer facilities.
- Commercially provided containers for hauling recyclable materials for recycling must be marked with the words "recyclables" or "recycling" or display the universal recycling symbol (three chasing arrows that form an unending loop). These containers can ONLY be transported to a reclamation site/processor to be recycled. They can be transported to a recycling facility within or outside of Snohomish County

at whatever rate is offered by the hauler/processing facility. State law allows materials that will be recycled to be hauled by a wider range of businesses, including properly-licensed common carriers, such as construction and demolition material haulers. Recyclable materials can also be "self-hauled" to a recycling facility or drop-off site."

- Any site utilizing recycling services must also have a properly marked container for non-recyclable waste for landfill disposal.
- Only recyclables that are actually going to be recycled should be put in the recycling containers. If the recycling containers have more than 10 percent accidental and incidental non-recyclable waste (by volume), they need to be "cleaned up" on site before they can be hauled to a recycling facility.
- Intermodal containers for hauling waste for landfill disposal directly to rail facilities are not allowed on construction/demolition job sites, except as otherwise approved by Snohomish County Solid Waste Division for the hauling of friable and non-friable asbestos containing material or petroleum contaminated soils.
- Construction and demolition waste hauled to Snohomish County transfer stations are charged at the rate of $105/ton (this rate is current as of 2021).
- Non-recycled residuals from reclamation facilities processing recyclables in Snohomish County must be disposed of as solid waste at a rate of $105/ton (2021 rate) or the rate of $65/ton (2021 rate) if the facility meets certain requirements and utilizes an intermodal container.

Flow control officers observe recycling facilities and construction projects throughout the County to see that materials are actually being recycled. These officers document contamination and code issues related to the improper use of recycling or disposal of materials. Snohomish County is partnering with local cities, other County departments both within Snohomish County and outside the county, Ecology and the UTC for these enforcement and education activities. Many construction and demolition recycling programs do not meet the 10% rule or struggle to follow the requirements listed in SCC 7.35.125. Snohomish County continues to correspond with and educate local recyclers and industry providers. The County issued one violation for flow control in 2019.

PLANNING ISSUES

Near-Term Planning Issues

Current planning issues related to waste disposal include:

- The County is interested in establishing a policy for beneficial use of closed landfills. This could include locating recreational activities on closed landfills, provided they do not compromise the integrity of environmental control systems such as the landfill cover or landfill gas control systems. For example, these activities may be restricted to passive recreational activities such as walking trails and educational kiosks.

- Continued enforcement of flow control activities are an integral component of disposal of solid waste in Snohomish County. Companies are continually engaging in "sham recycling", not following mandated hauling guidelines or avoiding facility tipping fees by exporting solid waste out of the county.

Long-Term Planning Issues

Waste shipments by railroads have provided reliable transportation of large quantities of solid waste exported to landfills in eastern Oregon or Washington, with only infrequent service interruptions due to factors such as extreme weather, landslides, and temporary lack of empty shipping containers. However, it should not automatically be assumed that there will always be sufficient rail capacity available at a price compatible with solid waste disposal rates. Over the long run, the demand for rail transportation is likely to grow along with population. The major freight railroads (BNSF and Union Pacific) are making investments to add capacity and improve service to customers in Washington State, but their business practices and investment priorities are also heavily influenced by the railroads' national-level needs and price competition.

Factors that could significantly affect future rail demand and pricing include:

- Increases or decreases in bulk exports such as coal, oil, or agricultural products.
- Volatility in global markets (where are products coming from or going to).
- Shifting economics between rail and truck.
- Fluctuating fuel costs and potential conversion to alternative sources of energy.
- Global economic changes, such as tariffs that could increase or decrease the amount of American products being exported and foreign goods being imported.
- Political changes.
- Climate change, which could affect the type and quantity of crops grown; flooding and washouts of track; wildfires and extreme heat.
- Regulatory changes, such as more or less stringent emissions limits from diesel locomotives and other greenhouse gas measures.

Since the mid-2000's, numerous studies of the capacity of Washington's railroads have been performed, many on behalf of the Washington State Department of Transportation. These studies looked at factors such as the inherent physical capacity of the track system; the location of bottlenecks; growth in demand for shipment by rail as well as by truck or barge; the effects of climate change; proposed capital improvement projects; and related public and private investment. The *2019 Washington State Rail System Plan* (WSDOT 2019) provides a recent assessment of rail capacity and projections of future demand for freight and passenger services.

ALTERNATIVES

Alternative A – Policy for Beneficial Activities at Closed Landfills

The County could establish policy and guidelines for appropriate uses of closed landfills that support Beyond Waste goals, while protecting the integrity of the environmental protection systems in place at the landfills.

Alternative B – Continued Enforcement of Flow Control Portion of County Code

This alternative involves the monitoring of waste generated at construction or demolition sites and the placement of wastes in the properly labeled containers, as well as tracking the final disposition of waste and recyclables.

RECOMMENDATIONS

The following recommendations are being made for disposal of municipal solid waste.

D1) Establish policies and guidelines for appropriate uses of closed landfills.

D2) Continue enforcement of the flow control elements of the revised County Code.

Snohomish County will be the lead agency for these two recommendations. These recommendations will not lead to a significant increase in staffing requirements or other budget demands, and can be continue to be implemented on an ongoing basis.

REFERENCES

Ecology 2020. Washington Department of Ecology, information from Ecology's website, https://ecology.wa.gov/Research-Data/Data-resources/Solid-waste-recycling-data, March 2020.

WSDOT 2019. 2019 Washington State Rail System Plan, December 2019.

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DRAFT

ENERGY FROM WASTE (EfW)

SUMMARY

This technical memorandum discusses the current options for deriving energy from waste (EfW). Historically, the term waste-to-energy (WTE) has been used but this term applies primarily to combustion methods; now the broader term EfW is being used to refer to a wider variety of technologies that utilize thermal, biological, mechanical and/or chemical processes. While many show a degree of promise and could provide a variety of advantages, most of these are still unproven on a large scale in the United States.

This technical memorandum provides a brief overview of current technologies for producing energy from waste. It is not intended to provide detailed information for the selection of a technology that would be appropriate for Snohomish County. This technical memorandum recommends monitoring the progress of these technologies to see if any might be of value to Snohomish County in the future.

BACKGROUND

Throughout history, humans have burned garbage to minimize its odors, deter pests, and reduce its volume. Open burning and incinerators with minimal or no controls were widely used in the United States until the 1980s. At that time, there was growing interest in the U.S. for 1) cleaning up the air emissions from solid waste incinerators, and 2) recovering energy from incinerators in the form of steam and electricity. A new style of incinerator was developed, which became known as a waste-to-energy (WTE) facility. Most of the WTE facilities in the U.S. were constructed during the 1980s and 1990s.

By the mid-1990s, interest in WTE in the U.S. had declined due to the public's concerns about toxic air emissions, especially carcinogens such as dioxins and furans. Despite improved air emissions control equipment, no new large (more than 500 tons/day) WTE facilities were brought on-line in the U.S. between 1996 and 2015. Meanwhile, WTE facilities in Europe continued to enjoy public support and are widely used to generate electricity and steam for heating buildings. After a 20-year hiatus in the U.S., a new 3,000 ton per day WTE facility opened in West Palm Beach, Florida in 2015.

In the past few years, interest in WTE and the broader group of EfW technologies has begun to grow again in the U.S. One primary factor spurring that interest is a concern about climate change and greenhouse gases (GHG) from burning fossil fuels to generate electricity. As an alternate energy source, the attractiveness of EfW may increase or decrease depending on whether fossil fuel prices appear to be rising or falling.

Goals and Policies for Energy from Waste

Goals and policies specific to energy from waste include:

- Goal 1: Support actions to reduce climate change and promote sustainability.
- Policy 1-2, Energy from Waste: Continue to monitor new and existing technologies for potential benefits to Snohomish County.
- Related policies from other technical memorandums include:
  - Policy 1-1, Climate Change: Support efforts and actions by County and other agencies to reduce GHG emissions and to lessen and prepare for the impacts of climate change.

Regulations for Energy from Waste

The following regulations apply to energy from waste facilities and activities:

- State regulations governing energy recovery, incineration and anaerobic digestion facilities can be found in Chapter 173-350 WAC, the Solid Waste Handling Standards. Chapter 173-350 WAC sets minimum functional performance standards for the proper handling of solid wastes. WAC 173-350-240 contains rules for energy recovery and incineration facilities, and WAC 173-350-250 contains rules for anaerobic digestion. Additional rules for incineration can also be found in Chapter 173-306 WAC (special incinerator ash management standards) and Chapter 173-300 WAC (certification of operators of solid waste incinerator and landfill facilities).
- Chapter 7.35 of the Snohomish County Code addresses incineration and other aspects of solid waste management.
- Depending on the type of facility and the technology employed, additional rules from the Puget Sound Clean Air Agency, EPA and other agencies would likely also apply.

EXISTING PROGRAMS AND ACTIVITIES

Current EfW Projects

As noted above, the term "energy from waste" (EfW) is being used more commonly now to refer to a wider variety of technologies that utilize thermal, biological, mechanical and/or chemical processes. There are relatively few EfW facilities used in the region. Some examples are briefly described below:

- **Spokane WTE Facility**: The City of Spokane operates an incinerator using mass burn technology. Mass burn technology is distinguished from other approaches by the fact that there is little pre-treatment of the waste. This facility has operated since 1991 and has a current capacity of 800 tons per day. It generates 22 megawatts of electricity, which is enough to power 13,000 homes. The solid waste processed is

reduced 90% by volume and 70% by weight. The ash is sent to the Roosevelt Regional Landfill for disposal.

- **Marion County WTE Facility**: Marion County's solid waste disposal system uses a mass burn incinerator located in Brooks, Oregon just off I-5. The plant is privately owned and operated by Covanta Marion, Inc., a subsidiary of New Jersey-based Covanta Energy Corp, which operates about 50 incinerators WTE plants around the world. The facility processes an average of 550 tons of garbage each day. The garbage is dumped into a 34-foot deep pit, which can hold nearly 3,000 tons at one time. An overhead crane mixes the garbage in the pit and lifts it into one of the two hoppers that feed the two boilers. The trash is burned at temperatures reaching 2,000 °F, which in turn boils water to generate steam to feed turbines that generate approximately 13 megawatts of electricity. This facility processes about 90% of Marion County's garbage. The other 10% consists of construction and demolition wastes, food processing waste, and other miscellaneous non-burnable materials.

- **Tacoma Food Waste Project**: The City of Tacoma experimented with processing source-separated food waste to supplement sewage in digesters at its wastewater treatment plant to produce methane gas that could be upgraded to pipeline quality for sale to a utility. This practice was abandoned for cost issues and technical reasons, and Tacoma's food waste is now combined with yard debris and composted.

- **Qualco Energy**: The Qualco Energy facility near Monroe, WA converts dairy manure and other organics into methane gas and generates 450 kW of power. The electricity generated is sold to the Snohomish Public Utility District. In addition to dairy manure, this facility has handled other wastes such as food waste, fish waste, cattle and chicken blood, trap grease, pulp, whey, and expired beer, wine, and soda. This facility also produces compost.

- **H.W. Hill Landfill Gas Project**: The regional landfill operated by Republic Services in Roosevelt, WA receives garbage from Snohomish County and many other municipalities. The gas created by the decomposing garbage is about 50% methane and 50% carbon dioxide, and is used to produce renewable natural gas (RNG), which the Klickitat PUD sells to Puget Sound Energy.

- **Wood Waste used for Fuel**: There are several facilities throughout the State of Washington that use wood waste for heat and electricity. The Hampton lumber mill in Darrington, WA burns wood waste (biomass) to cogenerate steam for drying lumber and electricity which is sold to the local utility. The McKinley Paper Company in Port Angeles, WA burns wood waste in a biomass cogeneration plant to provide steam for their operations, generating 9.5 megawatts.

It should be noted that the facilities listed above are generally in compliance with air quality and other environmental standards, and WTE facilities typically must meet more stringent standards than other power plants and facilities. It is anticipated that any new facilities proposed or constructed will need to meet even more stringent standards.

POTENTIAL EfW TECHNOLOGIES

EfW technologies can be grouped into three major categories: thermal, biological and chemical, and other technologies. A brief summary of these technologies is shown below.

Thermal EfW Technologies: Thermal technologies typically operate in a range of 700 to 10,000 °F. They have higher reaction rates than biological/chemical technologies. Most thermal technologies produce electricity as their primary energy product. The major types of thermal technologies include:

- **Mass Burn (Incineration)**: "Mass burn" facilities burn waste in an "as received" condition, without further preparation other than the removal of some large, undesirable objects such as major appliances. Incineration involves burning solid waste in a furnace under aerobic conditions and recovering the heat as steam, which drives a steam turbine and electrical generator. The waste is burned on a reciprocating grate, a technology generally licensed from one of several European companies who have proprietary equipment systems. Incineration plants larger than about 400 tons/day capacity utilize a "waterwall" boiler, where the furnace walls are actually water-filled tubes. The burning waste heats the tubes and creates steam which then drives a turbine (electrical) generator. Having been used successfully around the world for decades, mass burn is still the primary EfW technology, with continued improvements in the design of the waste-burning grates, air pollution control equipment, and combustion control systems.

- **Refuse-Derived Fuel**: A few US facilities use "refuse-derived fuel" (RDF), or waste that had been shredded and sorted to produce a higher quality, cleaner-burning fuel. Shredding solid waste and removing non-combustible materials such as glass and metals increases the heating value of the fuel and reduces the amount of material that is either abrasive or deleterious to the incinerator. The shredded RDF is more uniform in size and burns more evenly than unprepared waste. The added capital and operating costs of processing solid waste into RDF, however, has made it less popular than mass burn and relatively few U.S. plants use this technology.

- **Advanced Thermal Recycling**: Advanced thermal recycling is a second-generation mass burn technology that burns carbon-based materials in an oxygen-rich environment at temperatures of 1,300 to 2,500 °F. The grate, steam turbine, and generator are similar to those used in mass burn plants. The advanced air pollution control system captures and removes components from the flue gas stream and converts them to potentially saleable byproducts such as gypsum (calcium sulfate) and hydrochloric acid. Metals in the bottom ash from the grate are recycled and the ash can be used for road construction as is currently done in Germany. Advanced thermal recycling is essentially the current state-of-the-art for traditional mass burn WTE technology.

- **Pyrolysis**: Pyrolysis is the thermal degradation of organic materials in the absence of oxygen using an indirect heat source at about 750-1,650 °F. The byproducts are a synthetic gas (syngas), tars, and unburned carbon char. The syngas can be burned to generate steam or electricity. Although the char theoretically has industrial and consumer uses, the markets for such products have proven to be limited.

- **Gasification**: Gasification is the thermal degradation of organic materials in the presence of a limited amount of oxygen, less than that required to completely combust the materials. Gasification uses direct or indirect heating at about 1,400-2,500 °F to produce either fuel gas (methane and lighter hydrocarbons) or syngas (carbon monoxide and hydrogen). These can be burned to generate steam or electricity.

- **Plasma Arc**: Plasma is an electrically conducting gas produced by passing an electrical current through graphite electrodes. Operating at temperatures over 7,000 °F, the plasma can decompose organic materials into a synthetic gas (syngas) composed primarily of carbon monoxide and hydrogen. Gaseous chemical compounds are broken down into their constituent elements. Inorganic materials solidify into a vitreous (glass-like) slag. Plasma arc is essentially a gasification technology, although in Japan, a primary use of plasma arc equipment is to reduce incinerator ash to an inert slag that does not leach hazardous compounds into groundwater.

  Geoplasma proposed the first plasma-based waste disposal system in the U.S. in St. Lucie County, Florida, which would have disintegrated "fresh" MSW and MSW mined from an existing landfill. However, the project was cancelled in early 2012 due to technical and economic issues. Other cancelled plasma arc facilities include projects in Vancouver, B.C. and Tallahassee, Florida. A primary stumbling block for this technology is the heterogeneous nature of MSW, which makes it difficult to handle and to maintain consistent physical/chemical reaction conditions.

- **Catalytic Cracking**: Catalytic cracking is a thermochemical process that uses catalysts to accelerate the process of breaking down polymers (e.g. plastics) into their basic building blocks, called monomers. Standard oil refinery techniques can then be used to process the monomers into traditional fuels such as diesel and gasoline. This technology would apply mainly to plastics, which comprise about 13% of total MSW by weight.

Biological and Chemical Technologies: Biological and chemical technologies operate at lower temperatures and have slower reaction rates than thermal technologies. They can accept feedstocks with high moisture content but require material that is biodegradable. This means that materials such as metals, glass, and most plastics must be removed prior to beginning the biological/chemical reactions, or screened later. Useful byproducts can include fuel, electricity, compost, and chemicals. The following are typical biological/chemical technologies:

- **Anaerobic Digestion**: This technology uses a series of bacteria to decompose biodegradable material in the absence of oxygen, producing a medium-Btu gas containing 50% to 70% methane and 30% to 50% carbon dioxide. This gas can be burned in an internal combustion engine or a gas turbine, which in turn would drive an electrical generator. Anaerobic digestion also produces a residue that can be suitable for composting.

- **Ethanol Fermentation**: A series of chemical reactions is required to produce ethanol (a type of alcohol) from waste materials. The first reaction is hydrolysis, which converts organic materials to sugars. The sugars are then fermented to make dilute ethanol, which is then further distilled to produce a fuel-grade ethanol. The hydrolysis process for MSW is still under development.

- **Thermal Depolymerization**: This process reduces complex organic materials into a substance that is similar to crude oil. This is generally done with agricultural and animal wastes, which are ground, mixed with water, and then subjected to heat and pressure. The resulting hydrocarbons are further processed and distilled to produce a crude oil. Considerable development is required before this technology could be applied to MSW.

Other Technologies: There are a few additional EfW technologies that do not fit neatly into the above two categories, or that consist of a combination of technologies:

- **Densification/Pelletization**: Solid waste can be compressed and extruded through a machine to make fuel pellets used by industrial processes as a substitute for coal, oil, or natural gas. As with RDF, the cost of processing waste into pellets has inhibited this technology from becoming more widespread. In the U.S., pelletization is used mainly on small and relatively homogenous waste streams such as those produced by industrial plants.

- **Landfill Gas**: The decomposition of garbage in a landfill produces a methane-carbon dioxide mixture known as landfill gas (LFG). Because methane is potentially explosive, it is a long-standing industry practice (and an EPA requirement for large landfills) to collect the LFG and burn it in a flare to eliminate the explosion hazard. The fact that methane is also a potent greenhouse gas is added motivation to capture LFG, which can be burned in an internal combustion engine, gas turbine, steam boiler or fuel cell to produce electricity. Other technologies scrub and compress the methane, so it can be sold and injected into commercial natural gas distribution systems or utilized in CNG fleet vehicles.

- **Mechanical/Biological Treatment (MBT)**: MBT utilizes a variety of mechanical and biological processes to recover recyclables, stabilize organic material, generate energy, and produce products. In the European Union, an estimated 300 facilities use MBT to recover recyclables and produce solid recovered fuel (SRF), a substitute for coal, especially in cement kilns.

In the US, Entsorga (West Virginia) uses a proprietary Italian high efficiency biotreatment process that automates the separation of larger, dry material from smaller, higher-moisture material. The latter is aerated and dried for 7-10 days to bio-stabilize it. In the subsequent mechanical refinement stage, the two material streams are recombined, recyclables and undesirable material removed. The remainder is ground into SRF, a fluffy shredded paper mix used to supplement coal in cement kilns.

RePower South's 50 ton per hour facility near Charleston, South Carolina uses shredders, screens, conveyors, magnets, and optical sorters in about 20 process steps to shred, size, and sort MSW into cardboard, ferrous and non-ferrous metals, and several types of plastic, all of which are baled for market. The process also creates a fuel to supplement coal in cement kilns, industrial boilers, and electric utility boilers.

PLANNING ISSUES

The planning issues in this technical memo are separated into general issues (which are primarily associated with short-term issues and/or small-scale facilities) and issues that Snohomish County might consider if they wish to look at an EfW approach in the future instead of a waste export system.

General Issues

The general issues associated with EfW include:

- Many EfW technologies are based on the production and sale of alternative fuels to supplement or replace coal or other fossil fuels in cement kilns, industrial boilers, and electric generation utilities. The definition of "recycling" in Washington State law (WAC 173-350-100) and Snohomish County Code (SCC 7.35.020) **explicitly excludes conversion of waste for use as fuel in incinerators**. Thus, because they are not considered recycling facilities, facilities engaged in the production of alternative fuels from waste materials must meet siting and permitting requirements for solid waste facilities.
- Publicizing the manufacture of alternative fuels as "recycling" is misleading to the public and to businesses that are involved in the system.
- Alternative fuels manufactured from waste stream components can displace some fossil fuel in industrial applications such as cement kilns. Beneficial use of certain solid waste components that currently lack a viable recycling market is advantageous, but not if this discourages the development of a true recycling market.
- Energy recovery ranks higher than landfilling in the State and Federal waste management hierarchies. Conversion of materials to a beneficial use, such as the large volumes of wood waste that are being converted to hog fuel, reduces the waste volumes that need to be landfilled.

- In addition to reducing the amounts of materials needing disposal in a landfill, EfW system can create local jobs and other economic benefits.
- Failure to pay tipping fees deprives the County of revenue that supports several programs, such as litter crew services, proper management and disposal of moderate risk wastes, disaster debris planning, other solid waste planning and program management, management and monitoring of closed landfills, RV and boat disposal (Environmental Cleanup - ECUP), and solid waste education programs.

Current Snohomish County Issues

Some organizations and businesses in Snohomish County have expressed interest in utilizing EfW and are actively exploring ways to take advantage of the technology. This interest is driven by the potential revenue from the sale and export of "alternative fuel" made from waste materials. One of the biggest issues directly impacting Snohomish County is the export of residuals from recycling processes to cement kilns in Canada. Described in greater detail in the Disposal technical memo, SCC 7.35.125 requires that residual solid waste be disposed of at a Snohomish County solid waste facility. However, companies argue that they are manufacturing an alternative fuel to meet customer specifications, and that therefore it is no longer a residual byproduct of the recycling process, having been transformed into a completely new commodity.

The export of processed solid waste (alternative fuel) to EfW facilities, in violation of flow control ordinances, constitutes a regional problem. The County will continue to collaborate with regional partners including local health districts, local government, and State agencies to address this issue.

King County Example

Encouraged by the opening of a new 3,000 ton per day mass burn EfW facility in West Palm Beach, Florida in 2015, the King County Council included advanced thermal recycling (mass burn with enhanced recycling and advanced air pollution control) in a study that examined its alternative disposal options (King County 2019). This study was prompted by the upcoming closure of King County's Cedar Hills Landfill. The study concluded that this type of EfW would provide King County with less expensive waste disposal over a 50 year time horizon than if it began exporting its waste by rail. However, this does not necessarily imply that EfW would be less expensive than Snohomish County's existing waste export by rail program. There are a number of factors that differ for King County (see below) and there are also risks associated with this type of approach (siting and permitting delays, unexpected costs, siting problems in general, etc.) that could lead to this approach being more expensive than anticipated.

King County's solid waste system differs from that of Snohomish County's in a number of important ways:

- King County's transfer system is somewhat larger than Snohomish County's, consisting of 8 transfer stations and two drop box facilities.

- Rather than conducting a complex facility siting exercise, King County made the simplifying assumption that the new EfW facility could be located at the Cedar Hills Landfill site, resulting in no change to established waste transfer patterns.
- King County is served by two railroads (BNSF and Union Pacific) and thus could export waste from one of two intermodal facilities. However, King County would have to establish a new waste export program for itself.
- King County's base EfW scenario was a 3,000 ton per day (90-100 megawatt) facility, with an option to add another 1,000 ton per day combustion train. This is roughly twice Snohomish County's average daily tonnage.
- Solid waste disposal and recycling programs could significantly change over the 50 year time horizon of the study.

Because EfW facilities are extremely capital intensive, it would be difficult to draw reliable conclusions about feasibility unless Snohomish County conducted its own study based on its own unique features.

Issues for a Countywide System

Snohomish County already has a reliable and cost-effective solid waste disposal system that rail-hauls waste to a privately owned landfill in eastern Washington for disposal. In the future, however, the County may choose to consider other methods to dispose of some or all its solid waste. The motivation to do so may include a variety of factors such as landfill disposal costs, climate change, energy prices, materials markets, regulatory changes, and environmental concerns. The options for solid waste disposal are largely limited to landfilling, EfW, or a combination of recycling, composting and EfW technologies (such as mechanical/biological treatment, see page 7). Under some future conditions, an EfW facility disposing of the County's waste stream could provide an economically viable and sustainable alternative to waste export and landfilling.

Across the U.S., EfW technologies were first considered as a response to either declining landfill capacity or the increasing cost of landfilling. Landfill capacity is not a problem in the Pacific Northwest, where several remote regional mega-landfills dispose of waste from numerous cities and counties. However, EfW technologies could still be considered for inclusion in an integrated solid waste management system.

The potential benefits of a large or countywide EfW approach include:

- **Changes in the Viability of Waste Export by Rail**: While rail-haul has enabled reliable waste disposal for decades, there is no guarantee that sufficient rail capacity will continue to be available at historically acceptable prices. Over the long run, the demand for rail transportation might grow along with population. While the major freight railroads (BNSF and Union Pacific) are making investments to add capacity and improve service to customers in Washington State, their business practices and investment priorities are also heavily influenced by the railroads' national-level needs and price competition. In addition, changes in quantities and types of commodities

shipped, in global economics, regulations, and climate can also influence available rail capacity.

- **Waste Diversion**: EfW technologies are another potential technique for diverting non-recyclable wastes from landfills, to supplement traditional programs such as curbside recycling and yard waste composting. Many EfW technologies involve a pre-processing step to remove materials such as glass and metals that are non-degradable or non-combustible, hence deleterious to the conversion process. This pre-processing provides an opportunity to recover additional recyclables from discarded MSW. Rather than compete with recycling, EfW technologies can complement existing recycling programs.

- **Energy Recovery**: The ability to generate energy such as steam or electricity, or a fuel that can be burned to generate steam or electricity, is an added economic benefit in a time of high fuel prices.

- **Displacement of Fossil Fuels**: The use of solid waste can reduce the amount of fossil fuel used to generate electricity in a region, contributing to climate change benefits.

- **Reduced Air Emissions**: The use of some EfW technologies could potentially reduce the emissions of NO_x, SO_x, and particulates compared with some EfW technologies or traditional fossil fuel-fired power plants.

- **Reduced Carbon Emissions**: Carbon dioxide (CO_2) emissions from fossil fuel-fired and methane (CH_4) emissions from landfills are greenhouse gases. Methane has a global warming potential of about 21 times that of CO_2. The use of an EfW technology could reduce carbon emissions through increased recycling, diversion of organics from landfills, and displacement of fossil fuels.

- **Local Control**: EfW technologies provide an opportunity to manage solid waste locally instead of transporting it to a distant landfill. This could lead to additional stability.

- **Job Creation**: In general, landfill disposal creates the smallest number of jobs, whereas recycling and composting create more jobs[2], typically at least part of which are local jobs. EfW technologies would create more jobs and other economic benefits than landfilling, in part due to the increased recycling that might take place.

- **Reduced Transportation Costs**: Sending MSW to a local EfW facility reduces the cost and other impacts of transporting MSW to a regional disposal site.

- **Preservation of Landfill Capacity:** Landfill capacity not used for "convertible" MSW can be saved for future disposal of materials that truly cannot be recycled or

[2] Various studies have estimated that recycling creates 10.2 to 16.1 new jobs per 1,000 tons of additional recycling (CIWMB 2001).

converted into energy or useful byproducts. In addition, EfW technologies typically generate relatively small amounts of non-recyclable residuals, and these are more likely to be inert than unprocessed MSW.

- **System Reliability and Diversity**: Use of an EfW technology could allow the recovery of energy from MSW in a manner not currently practiced by Snohomish County's solid waste system. It would provide some diversity in terms of disposal capability. If multiple facilities were built in different parts of the County, they could reduce overall waste transportation costs and provide distributed generation of electricity. This could in turn contribute to the redundancy and robustness of both the solid waste system and the electric power system.

Potential drawbacks of an EfW approach by or in Snohomish County include:

- **Economies of Scale**: To operate an EfW facility economically and sustainably would require the long-term commitment of a significant portion of the municipal waste stream. Current contractual commitments by Snohomish County (through the waste export contract) and the cities (through the interlocal agreements), and flow control measures that govern wastes from unincorporated areas, result in most of the solid waste in Snohomish County being committed to the waste export system through at least 2028.

- **Low Energy Prices**: Energy prices in the Pacific Northwest are currently relatively low and appear to be stable, making EfW systems less cost-effective. In addition, many government agencies and other organizations are faced with goals for increasing the amount of "green" energy that they use, and EfW is not currently classified as a renewable energy source and so is not in a good position to compete in the energy market.

- **Ash Disposal Costs**: The incineration of solid wastes creates ash that typically needs to be disposed in a landfill, often in a special cell of the landfill. The cost of ash disposal diminishes the economic benefits and reliability of an EfW system.

- **Competition with Waste Diversion**: An EfW system can be seen as competing with or be confused with recycling programs. A recent study for Ecology (Ecology 2020) did not find current local evidence of this, but environmental organizations or the general public may still be concerned about this. There have been past cases where proposed EfW systems have been viewed as eliminating the need for curbside recycling (despite the very different outcomes of each approach), and so this issue would need to be approached cautiously for any future EfW projects. There is also confusion currently with EfW systems (especially for the production of alternative fuels) being equivalent to recycling, despite the clear regulatory distinctions between the two approaches.

- **Public Acceptance and Political Feasibility**: Past efforts to implement EfW systems in the U.S. have been undermined by public outcry and a lack of political support. In the past, much of this was driven by concerns about toxic air pollutants

being released by incineration of waste. While this situation seems to have calmed down significantly in the past decade, it is possible that this could become a problem for any future proposals.

- **Unproven Technologies**: The basic approaches for WTE have been tested and proven to work in many locations, especially currently in Europe, but many of the other EfW technologies previously listed in this technical memo have not been proven on a large scale.

ALTERNATIVES

Alternative A – Monitor Progress of EfW Technologies

Although EfW technologies have a limited track record in the U.S., vendors continue to develop their equipment and processes at pilot-scale and small commercial plants. Because of the many potential advantages and benefits noted above, it would be worthwhile for Snohomish County to monitor the progress and success of these efforts. In the future, it may be beneficial to conduct a detailed technical and economic feasibility study of one or more EfW technologies to determine its/their suitability to handle a portion of the County's MSW and produce energy, fuel, or other useful byproducts.

RECOMMENDATIONS

The following recommendation is being made with regard to energy from waste:

E1) The County should continue to monitor developments and progress in EfW including new technologies, pilot projects, facility procurements and operating track records, and other projects in the region.

Snohomish County would be the lead agency for this recommendation. E1 would require a minimal amount of additional Solid Waste Division staff time, since Division personnel are already routinely exposed to information about new developments and practices in the solid waste industry. If results appear promising, the County may at some point in the future wish to explore EfW in more depth, perhaps in the next solid waste planning period. Should the County choose a new technology it should be one with years of proven efficient operation. Adequate staff resources and budget would need to be approved to conduct a comprehensive feasibility study and cost-benefit analysis for an EfW technology.

REFERENCES

CIWMB 2001. *The Economic Impact of Waste Disposal and Diversion in California*. Prepared by the University of California for the California Integrated Waste Management Board. April 2001.

Ecology 2020. *Waste-to-Energy as a Tool for Solid Waste Management*. Prepared by the University of Washington Evans School of Public Policy & Governance. June 2020.

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OUTREACH AND EDUCATION

SUMMARY

Outreach and education are a critical element of waste diversion programs, serving to both inform people of the opportunities that exist for waste reduction and recycling and then motivating them to act. Outreach and education programs should encourage people and businesses to avoid producing waste in the first place and inform them about access to recycling and composting programs. People should also be encouraged to properly dispose of their wastes.

This tech memo addresses how best to implement various outreach and educational messages. It does not address outreach and educational efforts specific to program implementation. Outreach and education for specific programs and areas of focus are addressed in their corresponding technical memos. In addition, an overview of the plans to reduce recycling contamination can be found in the Contamination Reduction and Outreach Plan (see Attachment H).

The recommendations in this technical memo address the roles and responsibilities for public education efforts, the need for the Solid Waste Division to define outreach priorities, how to go about outreach for a more culturally diverse audience, and the need to find alternative funding sources for public education efforts.

BACKGROUND

The solid waste system is performing the same function it did thirty-five years ago – providing the county's citizens and businesses with environmentally safe waste disposal methods. Currently, however, this function is being performed in a very different manner. The system is now involved with not just disposal but also waste processing, transport, planning, engineering, recycling and waste prevention, moderate risk waste management, environmental regulation, compliance at operating and closed facilities, debris management planning, and contract monitoring. Furthermore, there is an increasing emphasis on sustainability, which goes far beyond the field of solid waste management.

Goals and Policies for Outreach and Education

- Goal 2: Ensure efficient services for a growing and changing customer base.
- Policy 2-6, Outreach and Education: Meet required educational components mandated by the State of Washington.
- Policies for most of the other technical memos are related because public education has the potential to support all other aspects of solid waste management.

Regulations for Outreach and Education

Regulations affect outreach and education in several different ways, which are discussed below by sector/responsible agency.

The Washington State Department of Ecology (Ecology): Public education is seen as an important support tool for the waste hierarchy and other mandated programs. The State has a few regulations specific to public education:

RCW 70A.205.005 (6)(c): "It is the responsibility of county and city governments to assume primary responsibility for solid waste management and to develop and implement aggressive and effective waste reduction and source separation strategies."

RCW 70A.205.005 (15): "Comprehensive education should be conducted throughout the state so that people are informed of the need to reduce, source separate, and recycle solid waste."

RCW 70A.205.010 (1): the primary responsibility for adequate solid waste handling is assigned to local government.

RCW 70A.205.045 (7)(iv): states that the waste reduction and recycling element of the solid waste plan must include "programs to educate and promote the concepts of waste reduction and recycling."

RCW 70A.205.045 (10): addresses how to combat contaminants in recycling. Ecology worked with stakeholders to develop a statewide Contamination Reduction and Outreach Plan (CROP), and counties are required to adopt this plan or develop their own CROP.

RCW 70A.205.070: addresses Ecology's roles in providing education and outreach, as well as technical assistance for planning.

RCW 70A.500.060 and 70A.500.120: requires that the manufacturers of electronics provide a promotional campaign to encourage the use of the product stewardship program (E-Cycle Washington) and requires that Ecology and local governments also promote the program.

RCW 70A.505.030: states that this mercury lights product stewardship program shall include production and distribution of point-of-sale educational materials to retailers of mercury-containing lights and point-of-return educational materials to collection locations.

RCW 70A.515.040 and 70A.515.050: requires that the implementation of the paint stewardship program include promotion of paint stewardship and development of educational and informational material. All producers of architectural paint selling in Washington will participate in an approved state paint stewardship plan through membership in and funding of a stewardship organization.

The Washington Utilities and Transportation Commission (UTC): UTC rules regarding waste collection companies includes a requirement (WAC 480-70-361) that garbage haulers publicize recycling and other services at least annually.

Local Government: Snohomish County and some of the cities have set their own service level requirements or executed contracts that sometimes include outreach and education.

Contracted Haulers: In cities that contract with haulers, the haulers also implement contractual requirements and service level ordinances that in many cases include performing outreach and education.

EXISTING PROGRAMS AND ACTIVITIES

Snohomish County has implemented programs for outreach and education by assessing the need for educating children, the general public, business and institutions concerning waste reduction, pollution prevention, and recycling/composting. The County maintains communications about these programs with private parties, other subdivisions within the county, other relevant county and city governments, and state and federal agencies. The cities, waste collection companies and others have also conducted programs to educate their residents and customers on similar issues.

A summary of current activities by agency and private companies is provided below.

Snohomish County

Snohomish County delivers educational information through a variety of portals including traditional paper handouts, signage, social media (Twitter, Facebook, and Nextdoor), the Solid Waste Call Center, and the County's website (https://www.snohomishcountywa.gov/207/Solid-Waste).

As of mid-2020, information available on the website includes:

- Near real-time (with a one to two minute delay) camera images of the queue lanes at all facilities.
- Construction and demolition debris program and education materials.
- Solid Waste account/credit information.
- Education materials on curbside collection, hazardous waste, recycling, and waste restrictions.
- General facility information.
- Fees.

A comparison of the web statistics between 2019 and 2020 (through July 20) emphasize the success and usefulness of the Division's web presence (see Table 1).

An example of how the County is utilizing social media was highlighted during the COVID-19 pandemic response for the weekend of June 27-28, 2020. The County was able to educate on program details, new service hours, and issue reminders about masks and social distancing, reaching 3,214 Twitter followers, 11,145 Facebook and 13,586 Nextdoor views.

Table 1. Number of Visits to Snohomish County Websites				
	2019		2020	
Solid Waste Web Page	Pageviews	Unique Pageviews	Pageviews	Unique Pageviews
Main Page	70,332	50,386	203,425	156,934
Facilities	131,203	111,707	191,521	157,437
Check the Lines	3,249	2,645	23,640	16,648
Recycling	50,538	41,887	72,564	59,805
C&D	1,251	1,010	6,983	5,774
Hazardous Waste	42,465	35,626	57,827	45,371

Source: Snohomish County records.

Some of the brochures and flyers available (as of mid-2020) on the Snohomish County website include:

- Secure Your Load
- How to Prevent and Report Illegal Dumping
- Pharmaceutical Waste Collection Locations
- Where Does Our Garbage Go? (English and Spanish versions)
- How to be a Salmon Friendly Gardener
- Resource Guide for Educators

As digitally dependent as society is becoming, the Solid Waste Call Center has set volume records for 2020. In 2019, the Call Center answered 17,505 phone calls. Typical questions include: what hours are you open, do you take a specific material or how do I dispose of a certain product. Due to the uncertainty with the COVID-19 pandemic and its effects on solid waste in Snohomish County, the call volume spiked to 23,118 inquiries for just the first six months of 2020 (January through June). The total number of calls for 2020 was 35,231.

This approach to outreach reflects the resources normally available to the Solid Waste Division for education, although at times special campaigns may be warranted.

State Programs

Ecology offers two-year non-competitive grants, the Local Solid Waste Financial Assistance grants (LSWFA), to all of the counties based on population. Snohomish County spends a majority of the grant money on the Moderate Risk Waste program. Ecology has also offered Waste Reduction and Recycling Education (WRRED) grants, which is a competitive grant program that provides funding to qualified local governments and non-profit organizations for local or statewide education programs designed to help the public with litter control, waste reduction, recycling, and

composting. A match of 25% of the state funding is required. In addition to funding, Ecology houses the 1-800-RECYCLE hot line and provides numerous brochures, publications and workshops to the public and recycling coordinators.

In recent years, Ecology has launched and maintains several statewide campaigns including the product stewardship program for e-waste, fluorescent lights and paint. These programs included advertising campaigns that target all areas of the state. Ecology, as well as the manufacturers, deliver outreach through media ads, billboards and signs at the collection points.

Haulers

The haulers are active in promoting their recycling and yard debris services, and helping distribute messages on recycling and sustainability in general. The hauler's websites address their recycling and other services. The haulers send out annual recycling guidelines and calendars to residents. They also send these to new customers. At least one of the haulers invites residents to tour their recycling facility. All of the haulers continue to improve and update their brochures for curbside collection and recycling.

G-certificated haulers work with the UTC and Snohomish County on the implementation of revenue sharing agreements. The agreements, described in more detail in the Recycling technical memorandum, provide for a variety of education activities for solid waste customers, such as increasing recycling outreach activities; new coordinated communication plans and educational materials; recycling outreach in Spanish to the Latino community; addition of food waste to yard debris collection programs; characterization studies of recyclables, residuals and contaminants; reporting of recycling and disposal data; efforts to increase collection service customers; expansion of curbside to include additional materials; multifamily customer outreach; and improving performance at material recovery facilities, including technology and equipment additions and upgrades.

Other Private Companies

Many different private companies are involved in educational efforts about waste reduction and recycling. Naturally, these efforts generally focus on the specific products manufactured or sold by the companies. For instance, many local grocery stores provide a small credit to customers that bring their own bag. The retailers also sell reusable shopping bags. There may be changes in these activities when the state law banning plastic bags at grocery stores is implemented in 2021.

Several private companies provide information on their services. One example of this is the Call2Recycle battery recycling program. Call2Recycle broadcasts on their website, in retail stores and in mass media to promote the collection and recycling of rechargeable batteries. Private efforts are sometimes also implemented through a consortium approach, where several companies join forces to promote the recycling of their product.

With the recent focus on green technology and carbon footprint, many private companies are evaluating their carbon footprint and, in some cases, publicizing the results. This helps to draw attention to personal and household carbon footprints (sustainability).

Non-Profit and Charitable Organizations

The Washington Green Schools provides education and outreach throughout the state to elementary school students on recycling, waste prevention, energy and sustainability topics. Schools can review the Green Schools website and go online to register their school for participation. The Washington State University (WSU) Extension staff train volunteers who provide outreach on recycling, waste reduction and composting.in the County. Habitat for Humanity promotes their collection and sale of reusable building construction and household items. The Washington Conservation Corp works with AmeriCorps volunteers who educate on environmental practices. These volunteers receive an education award upon finishing their year of service.

PLANNING ISSUES

Short-Term Planning Issues

Current planning issues related to outreach and education include:

- Continue to develop alternative funding sources for waste reduction efforts.
- The need to have common region-wide messages.
- The need for addressing inclusiveness and diversity in communication and public involvement strategies.
- The need to do more education using non-English materials.
- Determine new methods to convey information to the public.
- Define what the Division outreach and education programs should look like.

Long-Term Planning Issues

Emerging long-term issues related to outreach and education include:

- The increasing emphasis on sustainability raises questions about what is the appropriate message and who should take the lead on public education.
- The need for better measurement of the results of outreach and education efforts.

ALTERNATIVES

Alternative A – Stay Engaged in Regional Efforts

Snohomish County are already involved in regional discussions about a variety of solid waste topics. Continuing this involvement will allow more consistent messages in the region about recycling and other issues, and also allow these messages to be distributed more effectively. Distributing more consistent messages in the region will reduce confusion for residents and businesses in the Puget Sound region and lead to more effective results for getting the message to the target audiences.

At a minimum, this effort should involve staff from Snohomish County, King County, Seattle, and other cities in Snohomish and King Counties. Staff from Pierce County, Tacoma, Skagit County, and private organizations could also be invited. One goal of the coordination could be to incorporate solid waste issues into the broader context of similar messages. For example, waste reduction and reuse could be briefly mentioned as part of the solution when discussing global warming. Similarly, litter prevention could be tied into pollution concerns for the Puget Sound. The costs of this approach would only be the staff time for planning and coordination of regional meetings.

Alternative B – Identify Alternative Financing Sources for Public Education

Current public education and outreach efforts are funded primarily by grants and service charges (as part of the services provided by haulers and cities). Should the County or others choose to expand their education and outreach programs, additional funding may be needed. Alternative funding sources may also be needed if the LSWFA funds are restricted or eliminated due to the State budget crisis or other problems. Alternative funding mechanisms, such as fees or taxes placed on certain goods or services that create a disproportionate amount of waste or use a disproportionate amount of resources, could also help influence consumer behavior and call attention to problem areas. Possible alternatives for new or additional funding could include:

- **Other grants**: other grants monies are available from federal agencies, private foundations, non-profit organizations and others. Although grants are an attractive method, applying for a grant can be a time-consuming and potentially fruitless effort, plus grants may lack long-term stability.

- **Collection or disposal rate surcharges**: the County can attach surcharges to the disposal tipping fee to pay for education and other programs, and the cities can attach surcharges to collection contracts that they have executed with haulers (or to their own rates in the case of municipal collection systems). Both of these approaches are currently in use for other programs, however, and there would be some resistance to further increasing collection or disposal costs.

- **Service fees**: a surcharge could also be attached to service fees charged by haulers and others, or additional funds could be generated by embedding the cost of education into a fee for recycling or other service. This is also already done to some

extent, and as with the above example there would be some resistance to the idea of further increasing collection costs.

- **Other fees, surcharges and taxes**: a variety of other taxes or fees could be implemented, but none of these are considered to be politically feasible at this time.

Alternative C – Washington State University Extension Service Partnership

Snohomish County could extend and enhance the existing partnership with the WSU Extension Service to provide continuing educational services on solid waste topics and Division priorities. The WSU Extension service will collaborate with the Solid Waste Division to develop new educational components and establish program preferences to align with Division priorities. The County has found good results in waste reduction and recycling outreach through the work of WSU Extension staff and volunteers.

Alternative D – Extend Recycling Outreach to a Culturally-Diverse Audience

Public education and promotional efforts could target a diverse cultural audience, as appropriate to the topic and locality being addressed. In Snohomish County, 20.6% of the population speaks a language other than English in their homes and slightly more than one-third of these (7.6% of the total population) speaks English less than "very well" (U.S. Census Bureau 2020). Of this 7.6%, 37% speak Asian and Pacific Islander languages, 33% speak Spanish, 22% speak other Indo-European languages, and the remaining 8% speak other languages. The children in these families are likely receiving education about environmental issues in school, but the adults may not be as well-informed. Hence, this alternative focuses primarily on educating the adult members of these families, through printed and electronic materials in non-English languages.

In the past, Snohomish County conducted outreach in non-English languages with funding from the Revenue Sharing Agreements, but this funding is limited. WSU has incorporated some outreach to culturally diverse audiences in their waste reduction and recycling materials.

Alternative E – Define Division Program Priorities

The Division manages a variety of solid waste-oriented programs but has not recently collaborated on establishing outreach and education priorities. Planning staff will convene and develop guidance for education priorities. This endeavor could also be considered a continuous improvement project, which is described in the Administration and Regulation technical memo.

RECOMMENDATIONS

The following recommendations are being made for outreach and education programs:

O&E1) Snohomish County should participate in a regional effort to provide more consistent messages for solid waste programs and issues.

O&E2) Greater efforts will be made to extend recycling outreach to a diverse audience.

O&E3) Continue partnership with the WSU Extension Service to provide educational services to Snohomish County that align with Division priorities.

O&E4) Alternative funding sources for public outreach and education should be explored.

O&E5) Division staff should define educational program priorities.

Snohomish County should be the lead agency for most of these recommendations. Cities, service groups, haulers and other private companies will promote local programs, including reaching out to a more diverse audience.

The cost for all recommendations will consist primarily of County staff planning and coordination. O&E2 may lead to increased costs for cities and service providers. Most of these recommendations should be conducted on an on-going or as-needed basis.

REFERENCES

U.S. Census Bureau 2020. Snohomish County data from U.S. Census Bureau website, https://www.census.gov/quickfacts/fact/table/snohomishcountywashington,US/POP815218, April 30, 2020.

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ADMINISTRATION AND REGULATION

SUMMARY

This technical memo addresses the administrative and regulatory activities at the local, regional, state and federal levels and how they impact and define solid waste programs in Snohomish County.

The recommendations made in this technical memo address regional collaboration and standardization for solid waste issues, continuous improvement initiatives, county code review/alignment, the need to annually examine the effectiveness of solid waste programs in Snohomish County, and the need to update the interlocal agreement.

BACKGROUND

The solid waste management system in Snohomish County is an integrated collection of facilities and programs that are intended to operate as a cohesive system. Achieving this requires the cooperation and coordination of government agencies on several levels and the involvement of many private companies. The various facilities and programs are not only intended to satisfy the statutory requirements that private and public sector participants are responsible for fulfilling, but altogether the system is intended to provide waste management services in the most cost-effective and environmentally responsible manner possible.

Goals and Policies for Administration and Regulation

Goals and policies specific to administration and regulation include:

- Goal 2: Ensure efficient services for a growing and changing customer base.
- Policy 2-7, Administration and Regulation: Ensure that administrative services and regulatory activities provide adequate support for policies and programs undertaken by the Division.
- Policies from other technical memorandums: All of the other policies are related in some way to administrative and regulatory activities as delineated in this Plan.

EXISTING PROGRAMS AND ACTIVITIES

Administrative responsibility for solid waste handling systems in Snohomish County is currently divided among several agencies and jurisdictions in local, county, regional and state government. Enforcement and regulatory responsibilities are assigned to cities, counties, or jurisdictional health departments, depending on the specific activity and

local preferences. Each organization involved in the Snohomish County solid waste management system is described below.

Snohomish County Solid Waste Division

The Washington State Solid Waste Management Act, Chapter 70A.205 RCW, assigns local government the primary responsibility for managing solid waste. Solid waste handling, as defined in RCW 70A.205.015, includes the "management, storage, collection, transportation, treatment, utilization, processing, and final disposal of solid wastes, including the recovery and recycling of materials from solid wastes, the recovery of energy resources from solid wastes or the conversion of the energy in solid wastes to more useful forms."

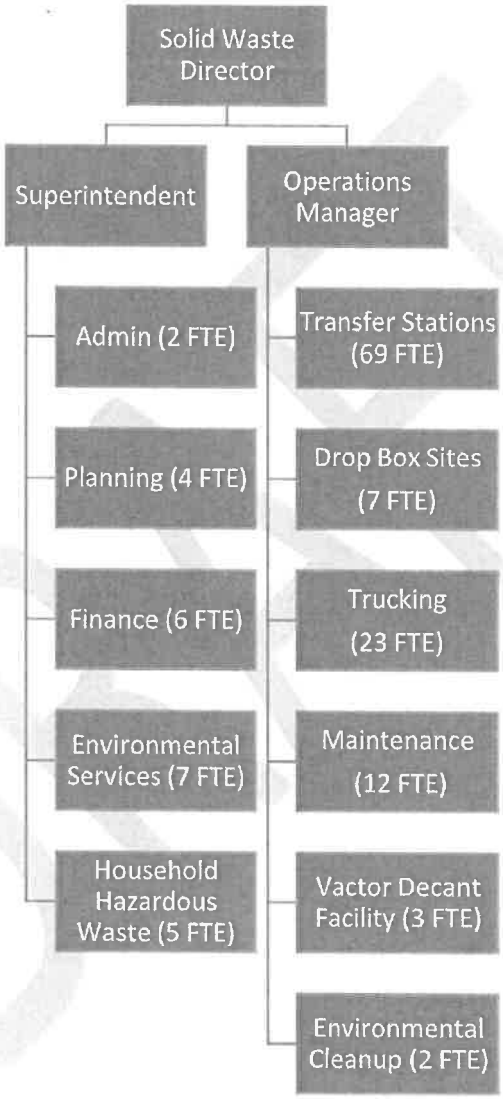
Chapter 36.58 RCW authorizes Snohomish County to develop, own, and operate solid waste handling facilities in unincorporated areas of the county, or to accomplish those activities by contracting with private firms. The County may regulate tipping fees, hours of operation, facility access, and waste acceptance policies at each of its facilities. The County also has the authority and responsibility to prepare comprehensive solid waste management plans for unincorporated areas and for jurisdictions that agree to participate with the County in the planning process. Through interlocal agreements, all of the cities and towns in Snohomish County have agreed to participate in the planning process. The interlocal agreements also require that all waste collected by or in the cities must go to a Snohomish County disposal facility.

Snohomish County exercises its solid waste responsibilities through the Public Works Department, and specifically through the Solid Waste Division. The specific administrative functions performed by the Solid Waste Division include:

- Administering, staffing, and operating four transfer stations, three drop box sites, a household hazardous/moderate risk waste collection facility, a vactor waste decant facility, and various recycling and organics collection programs.
- Monitoring, providing post-closure maintenance, and providing financial assurance for closed solid waste facilities.
- Conducting public education programs for waste reduction and recycling.
- Administering grants, contracts and various agreements.
- Planning and implementation of various programs including disaster debris management, environmental clean-up, litter crew and alternatives to burning.
- Regional collaboration and coordination with Federal, State, local, municipal, and public/private stakeholders in the solid waste industry.
- Maintaining the *Comprehensive Solid and Hazardous Waste Management Plan* (Plan) as adopted relating to public health, safety, and sanitation, and providing regulations to govern the storage, collection, transfer, transportation, processing, use, and final disposal of solid waste by all persons in Snohomish County.
- Providing staff support for the Solid Waste Advisory Committee (SWAC).

The Solid Waste Division is staffed by about 150 employees and most are involved in the operation of transfer and disposal facilities. Figure 1 illustrates the Solid Waste Division organizational structure as of October 2020.

Figure 1
Snohomish County Solid Waste Division Organizational Structure by Function



The Solid Waste Division is funded primarily by the fees collected at the drop box sites and transfer stations. Fees charged at the County's solid waste facilities are established in the solid waste service fee schedule approved through a County Council motion. The County also receives grant monies from the Washington Department of Ecology (Ecology) for solid waste management planning activities and other projects. The budget for the Solid Waste Division is shown in Table 1.

Table 1. Snohomish County Solid Waste Budget

	2017	2018	2019	2020
Expenditures				
Debt Payments	$3,438,716	$3,432,333	$3,443,500	$3,437,767
Capital Expenses	$4,195,750	$276,807	$4,333,000	$8,325,000
Administration	$4,317,073	$4,690,607	$4,851,310	$5,087,582
Planning	$767,618	$607,529	$815,919	$828,863
Household Hazardous Waste	$ 832,612	$901,722	$1,113,690	$1,268,518
Operations	$16,801,726	$18,695,897	$19,268,819	$20,693,353
Waste Export	$29,893,805	$28,127,977	$30,540,570	$31,630,665
Environmental Services Section	$1,324,613	$1,390,555	$1,825,633	$1,999,464
Vactor / Sweepings	$210,231	$450,001	$538,030	$824,180
Total	$61,782,144	$58,573,428	$66,730,471	$74,095,392
Revenues				
Waste Disposal	$57,407,569	$60,073,230	$61,377,109	$62,729,880
Other Revenue[1]	$3,769,205	$3,391,253	$3,515,053	$3,742,053
Fund Balance	$3,064,603	$4,467,015	$1,838,309	$7,623,459
Total	$64,241,377	$67,931,498	$66,730,471	$74,095,392

Notes: All figures are in dollars. The 2017 and 2018 figures are actual amounts, and the 2019 and 2020 figures are budgeted amounts.

1. Other Revenue includes vactor fees, yard waste fees, investment interest, intermodal rent and leases, and Ecology grants.

One important program for the Solid Waste Division is the Environmental Cleanup program (ECUP), which was implemented in 2000. ECUP's mission is to remove solid and hazardous waste illegally dumped on public lands, mitigate sites where illegal dumping frequently occurs and educate the public on the variety of alternatives to unlawfully dumping material throughout Snohomish County.

Now 20 years old, the ECUP program and staff have developed a reputation for exemplary customer service, response to emerging community issues and are an integral component of the Snohomish County solid waste system. ECUP activities include: illegal dump cleanup, roadside litter collection, abandoned vehicle towing and processing, junk vehicle affidavit inspection services, and recreational vehicle (RV), camper, travel trailer and boat recycling and disposal. An offshoot of the ECUP program that was established in 2017 is the Clean Sweep Litter Program. The Clean Sweep Litter Program is Snohomish County's response to residents' increasing concerns about litter issues. A five-member crew of county employees, named the Litter Wranglers, responds to resident calls and emails by working the roadsides and collecting the trash in areas with excessive litter. Results of the successful program are highlighted in Table 2. The 2020 Litter Wrangler program was suspended due to the COVID-19 pandemic.

Table 2. Clean Sweep Litter Program Results		
Year	Miles Cleaned	Litter Bags Collected
2017	445.7	4,749
2018	607.7	5,878
2019	805.1	6,398

Source: Snohomish County records.

Much of the solid waste activities, especially for regulation and enforcement, are directed by the County Code. The sections of Title 7 of the County Code that are relevant to solid waste include:

- 7.34 – establishes the Solid Waste Advisory Committee (see the following section).
- 7.35 – establishes a comprehensive county-wide program for solid waste handling, recovery and/or reclamation. This requires effective control of all non-exempted solid waste generated and collected within Snohomish County.
- 7.41 – adopts operating rules and disposal fees for Snohomish County solid waste facilities.
- 7.42 – establishes minimum service levels for recycling and waste collection in the unincorporated areas.

Snohomish County Solid Waste Advisory Committee (SWAC)

The formation of the Snohomish County Solid Waste Advisory Committee (SWAC) is governed by Chapter 7.34 of the County Code and also by state law. The SWAC is an advisory body and does not have the authority to implement programs. As shown in state law:

> "Each county shall establish a local solid waste advisory committee to assist in the development of programs and policies concerning solid waste handling and disposal and to review and comment upon proposed rules, policies, or ordinances prior to their adoption. Such committees shall consist of a minimum of nine members and shall represent a balance of interests including, but not limited to, citizens, public interest groups, business, the waste management industry, and local elected public officials. The members shall be appointed by the county legislative authority" (RCW 70A.205.110 (3)).

The SWAC meets regularly to exchange information on solid waste and resource recovery issues, provide policy recommendations to Snohomish County and review and provide comments on plans concerning solid waste handling and disposal. Meetings are held at least quarterly and are open to the public. The Snohomish County Boards and Commissions website provides additional information about the SWAC. SWAC

meetings were temporarily suspended in 2020 due to the COVID-19 pandemic and resumed in early 2021, at which point monthly meetings were held to review this Plan.

Snohomish Health District

The Snohomish Health District (SHD) is responsible for enforcing solid waste regulations and issuing permits for solid waste facilities. Permits are required for all solid waste facilities in accordance with Chapter 173-350 WAC and Chapter 173-351 WAC. Permitted solid waste facilities include, but are not limited to, landfills, transfer stations, recycling processing, composting, and petroleum-contaminated soil (PCS) remediation sites. The SHD inspects all permitted solid waste facilities at least once per year. The SHD also reviews permit applications to ensure that proposed facilities meet all applicable laws and regulations, conforms to the approved solid waste management plan, and complies with all zoning requirements.

The Environmental Health Section of the SHD investigates complaints concerning the following activities:

- **Illegal dumping**: garbage and/or other solid waste dumped on private or public property without the owner's permission.
- **Garbage**: improper storage, handling, and disposal practices that attract flies or rodents. This includes uncontained garbage, or garbage not removed weekly.
- **Rodent/Vector problems**: conditions that are attracting or feeding rodents or other vectors, causing a neighborhood infestation.
- **Hazardous waste**: storage, handling, or disposal practices that allow toxic chemicals to be released to surface water, groundwater or soil.
- **Initial investigations for chemical releases**: the Health District works in cooperation with Ecology to investigate releases or potential releases of chemicals to the environment.

Snohomish County Roads Division

The Snohomish County Public Works, Roads Division (Roads) administers the Adopt-a-Road program. The Adopt-a-Road Program is a roadside clean-up campaign designed to remove litter along county roadways, enhance the quality of the environment, and promote community pride. The program establishes a partnership between volunteer groups and Snohomish County Public Works. Community groups sign up to remove litter along "adopted" sections for county road. In recognition of their efforts, Public Works installs two Adopt-A-Road signs with the group's name along their adopted section of road, and these are installed after the group's first clean-up event.

Roads provides safety training for group leaders, safety training materials for volunteers, safety equipment, and supplies for clean-up events. Individuals, families, civic organizations, service clubs, churches, businesses, and other organizations can participate in the program.

Additionally, Roads is a business partner with Solid Waste and the Litter Wrangler roadside cleanup program. As the litter crew collects trash along the roadside, Roads crews will collect the material and transport it to the nearest transfer station for disposal. Roads also pays for 33% of the Clean Sweep program costs.

Cities and Towns

There are 20 incorporated cities and towns in Snohomish County, including one city (Bothell) that is partly in King County. RCW 35.21.152 allows cities to develop, own, and operate solid waste handling systems and to provide for solid waste collection services within their jurisdictions. Most of the cities contract with a hauler to collect garbage within their city, while garbage collection routes outside the city borders are regulated by the Washington Utilities and Transportation Commission (UTC). Fees charged for collection services generally cover the expenses of the system, although some cities also charge a "utility tax" that helps fund other city functions. More detailed information about garbage collection in individual cities is shown in the Waste Collection Technical Memo.

Most of the cities and towns also have some form of code enforcement program for properties that accumulate junk such as wood, inoperable cars, car parts, appliances, and furniture. Snohomish County has taken the lead in educating contractors doing work within municipalities on requirements associated with waste disposal in Snohomish County. Any enforcement is typically done through issuing permits and references that builders must comply with the disposal requirements delineated in County Code.

Washington State Department of Ecology

The Solid Waste Handling Standards (Chapter 173-350 WAC) were promulgated by Ecology under the authority granted by Chapter 70A.205 RCW. In addition, Chapter 173-351 WAC, Criteria for Municipal Solid Waste Landfills, contains the current standards for municipal solid waste landfills. The Model Litter Control and Recycling Act (RCW 70A.200.060) prohibits depositing garbage on any property not properly designated as a disposal site, including junk vehicles. There is also the waste reduction, recycling, and litter control account that has been created through a tax levied on wholesale and retail businesses, and the monies from this fund have been used for education, increased litter clean-up efforts, and contracts to eligible county entities for illegal dump clean-up activities.

The Community Litter Control Prevention (CLCP) program provides funds to the counties for litter cleanup activities. For the most recent funding cycle, mid-2019 through mid-2021, Snohomish County received $299,200 from this program, including $78,000 for a curtain trailer for ECUP. This is a reduction in funding from the 2012-2013 grant cycle when the County received $1.3 million dollars per biennium.

Under the Model Toxics Control Act (Chapter 70A.305 RCW), grants are available to local governments for solid waste management plans and programs, hazardous waste management plans and programs, and remedial actions to clean up existing hazardous

waste sites. Solid and hazardous waste planning and programs are funded through the Local Solid Waste Financial Assistance program administered by Ecology's Solid Waste Management Program. The state rule that governs this program is WAC 173-312 – Local Solid Waste Financial Assistance. The *2019-2021 Local Solid Waste Financial Assistance Guidelines* (Ecology publication #19-07-009) outlines the Local Solid Waste Financial Assistance program and the fund that supports the program. Cleanup of existing hazardous waste sites is funded through Remedial Action Grants, described in Ecology's *Remedial Action Grants and Loans Program Guidelines* (Ecology publication #20-09-055).

Ecology also responds to complaints regarding hazardous material spills or releases.

Washington Utilities and Transportation Commission (UTC)

The Washington Utilities and Transportation Commission (UTC) regulates privately-owned utilities and companies that provide public services such as electric power, telephone, natural gas, private water, transportation, and waste collection. The UTC's authority over solid waste collection is established in Chapter 81.77 RCW and Chapter 480-70 WAC.

The UTC regulates residential and non-residential garbage collection services, primarily in unincorporated areas. Cities are permitted by state law to choose their form of waste collection regulation. Most of the cities in Snohomish County contract with a private hauler for garbage collection services (or collect it with city crews as in the case of Marysville), and only a few rely on the UTC to regulate a private garbage hauler as if they were an unincorporated area. UTC authority does not extend to companies operating under contract with any city or town, or to any city or town that conducts their own solid waste collection. This regulatory system was set up by the State Legislature in the 1960's to ensure that every household or business, no matter how remote, is offered garbage collection service.

The UTC regulates solid waste collection companies by granting "certificates of convenience and necessity" that permit collection companies to operate in specified service areas. It also regulates solid waste collection, under the authority of RCW 81.77.030, by:

- Fixing and altering collection rates, charges, classifications, rules, and regulations.
- Regulating accounts, service, and safety of operations.
- Requiring annual reports and other reports and data.
- Supervising collection companies in all matters affecting their relationship to their customers.
- Requiring compliance with local solid waste management plans and related implementation ordinances.
- Requiring collection companies to use rate structures consistent with state waste management priorities.
- Enforcing illegal transportation of solid waste for disposal.

In 2019, the UTC implemented a renewed campaign to enforce transportation carriers and the illegal hauling of solid waste. Reports of illegal hauling of solid waste material may be submitted via the website at: https://www.utc.wa.gov/regulatedIndustries/transportation/TransportationDocuments/Non-Permitted%20Carrier%20Report.pdf.

Solid waste companies operating in the unincorporated areas of the county must comply with this Plan (see RCW 81.77.040).

This Plan contains a cost assessment prepared according to the *Cost Assessment Guidelines for Local Solid Waste Management Planning* (UTC 2019). RCW 70A.205.65 grants the UTC 45 days to review the plan's impact on solid waste collection rates charged by solid waste collection companies regulated under RCW 81.77, and to advise the County and Ecology of the probable effects of the Plan's recommendations on those rates.

Puget Sound Clean Air Agency

The Puget Sound Clean Air Agency (Clean Air Agency) is a special-purpose, regional agency chartered by state law in 1967 (Chapter 70A.15 RCW). Its jurisdiction covers King, Kitsap, Pierce and Snohomish counties, and it is governed by a Board of Directors that is comprised of elected officials from each of the four counties, a representative from the largest city in each county, and one member representing the public-at-large. The Clean Air Agency also has an Advisory Council comprised of individuals representing large and small businesses, non-regulated business, education, transportation, health, tribes, fire officials, the environmental community, ports and the public-at-large.

Clean Air Agency regulations apply to all areas of Snohomish County except for Tulalip Tribal lands, which are guided by the Federal Air Rules for Reservations (FARR) regulations.

Environmental Protection Agency (EPA)

At the federal level, the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Solid Waste Disposal Act Amendments of 1980 (42 U.S.C. 6901-6987), is the primary body of legislation dealing with solid waste. Subtitle D of RCRA deals with non-hazardous solid waste disposal and requires the development of a state comprehensive solid waste management program that outlines the authorities of local, state and regional agencies. Subtitle D requires that the state program must prohibit "open dumps" and must provide that all solid waste is disposed in an environmentally-sound manner.

Tulalip Indian Nation

The Tulalip Tribes of Washington is a federally-recognized Indian Nation and their reservation occupies 22,000 acres located north of Everett and the Snohomish River

and west of Marysville, Washington. The Tribe's population is over 4,900 and growing, with 2,700 living on the Tulalip Indian Reservation. The Tribe is governed by a Tribal Council made up of elected members. The Council holds regular meetings and handles the business affairs of the Tribe. The Tulalip Nation has inherent authority to govern all activities as they pertain to solid waste management within the boundaries of the Tulalip Indian Reservation.

PLANNING ISSUES

Near-Term Planning Issues

Current planning issues related to administration and regulation include:

- Educating Snohomish County residents and business on current solid waste and recycling issues.
- Supporting Solid Waste operations so they may continue to run fiscally responsible and efficient solid waste services for the Snohomish County community.
- Staffing issues related to supporting the programs necessary for an effective solid waste program.
- Updating and promoting the use of technology to support Division activities and programs.
- Implementing continuous improvement initiatives across the Division.
- Evaluating alignment of Division programs with Snohomish County Code.

Long-Term Planning Issues

Long-term issues related to regulation and administration include:

- Align and standardize regional response and efforts for dealing with solid waste issues.

ALTERNATIVES

Alternative A – Regional Collaboration and Standardization on Solid Waste Issues and Programs

Snohomish County is involved with regional and statewide efforts to increase program consistency and collaborate on ways to address solid waste issues. County staff regularly meet with staff from other county, city and state agencies to compare and improve solid waste and recycling programs. Continuing this involvement can provide a number of benefits and be used to address a number industry-related issues. The individual technical memorandums as part of this comprehensive plan update outline specific collaborative efforts for various topics.

Alternative B – Continuous Improvement (CI)

Snohomish County has implemented an ongoing effort to analyze and improve existing workflow and processes, evaluate programs and make adjustments as needed to a variety of solid waste initiatives. In the Solid Waste Division, this may include review and evaluation of administrative, planning, fiscal or operational-centric workflows. The Division has identified several CI projects. The Division will implement projects already identified and continue to seek new projects. Planning staff will train supervisors and select staff in how to recognize potential CI projects and follow through on their implementation. Examples of current CI projects include:

- New web pages to provide better customer service.
- Changing point of sale vendors to reduce credit card service charges.
- Adding new containers to collect small propane tanks at transfer station recycle areas.
- Evaluating how cooking oil is collected and processed.

Alternative C – Define and Prioritize Solid Waste Activities

As part of an annual review process, the Division can develop actionable workplans to help design and strategize for implementing realistic and effective programs. These improvements could also be part of an annual process for tracking progress in implementing this Plan's recommendations. An annual report could be prepared by the Solid Waste Division and presented to the County Council. This annual report could include the following:

- Prior year's goals and accomplishments.
- Quantitative / measurable results.
- Upcoming year's goals and expected results.
- Recommendations for any Plan updates or modifications over the next 5 years.

Additionally, the outcomes from the workplans and project can be reported to SWAC.

Alternative D – Evaluate Alignment of Division Programs with Snohomish County Code (SCC)

As solid waste programs continually evolve with changing markets, mandates and a variety of other factors, the SCC does not necessarily stay current with the industry or the direction of Division management. The Division should review existing programs and related SCC references to make sure they align with current program parameters. For example, the review could update several SCC entries including:

- SCC 7.35.020, Definitions of solid waste related terms and activities.
- SCC 7.35.125, Disposal of Solid Waste.
- SCC 7.37.030, Grants to certain not for profit charitable organizations.

- SCC 7.41.020, Solid waste service fee schedule.
- SCC 7.42.040, Services to be provided regarding residential collection of solid waste and recyclables in unincorporated areas of the county.

Alternative E – Renew the Interlocal Agreement

The current interlocal agreement for solid waste management, which was executed in 2004 by Snohomish County and all of the cities and towns, expires December 31, 2023. This agreement has served the county and municipalities well, and should be continued.

RECOMMENDATIONS

The following recommendations are being made for administrative and regulatory programs:

A&R1) Snohomish County SWD should implement division-wide continuous improvement projects and report back to SWAC on implemented improvements or operational changes.

A&R2) Snohomish County SWD should review programs and activities annually to explore program modifications that could increase the effectiveness of waste prevention, recycling, greenhouse gas reduction and other programs.

A&R3) Snohomish County SWD will collaborate and coordinate program endeavors with regional partners to increase standardization and improve responses to solid waste issues.

A&R4) Snohomish County SWD will review existing county code, how it relates to current endeavors, and suggest/implement appropriate changes to align with Division programs.

A&R5) Snohomish County SWD will work with the cities to renew the Interlocal Agreement for solid waste management.

Snohomish County is the administrative and regulatory lead for the solid waste system in the county, in coordination with Federal, State, regional and local agencies. Cities, service groups, haulers and other private companies will operate within these systems.

All of the recommendations should be implemented, or continue to be conducted, over the next five to ten years.

REFERENCES

UTC 2019. *Cost Assessment Guidelines for Local Solid Waste Management Planning*, Washington Utilities and Transportation Commission, October 2019.

APPENDICES

A Glossary

B Moderate Risk Waste Plan

C Solid Waste Facility Siting

D Waste Quantities and Composition

E UTC Cost Assessment Questionnaire

F SEPA Checklist

G Interlocal Agreements

H Contamination Reduction and Outreach Plan

I Resolutions of Adoption

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GLOSSARY

The following definitions are provided for various terms used in the *Snohomish County Comprehensive Solid and Hazardous Waste Management Plan*. Items marked with an asterisk (*) are from Chapters 7.35 and 7.41 of the Snohomish County Code.

Note: See also Snohomish County Codes (especially Chapters 7.35 and 7.41) and State law (especially RCW 70.95.030 and WAC 173-350-100) for additional definitions related to solid waste management. In the case of any inconsistencies, Snohomish County Code, and then State law should take precedence over the below definitions.

Anaerobic digester: a facility that processes livestock manure, biosolids, and/or other organics, using microorganisms in a decomposition process within a closed, oxygen-free vessel to produce methane and residual solids.

ARTS: Airport Road Recycling and Transfer Station, one of the transfer stations owned and operated by Snohomish County (see also "CWRTS," "NCRTS" and "SWRTS").

Biodiesel: a type of diesel fuel derived from vegetable oils or animal fats rather than petroleum, used in vehicles and other compression-ignition engines.

Biomedical waste: infectious and potentially injurious waste originating from a medical, veterinary, or intermediate care facility, or from home use.

Biosafety level 4 disease waste: includes wastes contaminated with blood, excretions, exudates, or secretions from humans or animals who are isolated to protect others from highly communicable infectious diseases that are identified as viruses assigned to Biosafety Level 4 by the Centers for Disease Control.

Biosolids: includes sludge from the treatment of sewage at a wastewater treatment plant and semisolid waste pumped from a septic system that has been treated to meet standards for beneficial use.

Cardboard: recyclable kraft liner cartons with corrugated inner liners, as typically used to ship materials. This generally does not include waxed cardboard or paperboard (cereal boxes, microwave and similar food boxes, etc.).

CERCLA: Comprehensive Environmental Response, Compensation and Liability Act.

CESQG: see conditionally exempt small quantity generators.

CFC: chlorofluorocarbon, a chemical used in refrigerators and similar appliances.

Combustion: the process of burning something.

*Commercial: a category of solid waste brought to a Snohomish County solid waste disposal system facility for disposal by a company, corporation, business, firm, association, sole proprietorship, partnership, municipality, political subdivision, or government entity.

Commingled: recyclable materials that have been collected separately from garbage by the generator, but the recyclable materials have been mixed together in the same container (see also single stream and source-separated).

*Composting: the controlled microbial degradation of organic waste yielding a nuisance-free soil amendment product.

Conditionally exempt small quantity generators (CESQGs): a dangerous waste generator whose dangerous wastes are conditionally exempt from regulation under chapter 70.105 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).

*Construction, demolition and land-clearing waste: any recyclable or non-recyclable waste that results from construction, remodeling, repair or demolition of buildings, roads, or other structures, or from land-clearing for development, and that is removed from the site of construction, demolition or land clearing.

CROP: Contamination Reduction and Outreach Plan.

Curbside recycling: the act of collecting recyclable materials directly from residential generators, usually after the recyclable materials have been placed at the curb (or at the side of the street if no curb exists in the area) by the residents.

CWRTS: Cathcart Way Recycling and Transfer Station, the fourth transfer station in Snohomish County, is opened to accept waste only when one of the other stations is temporarily closed for maintenance or repair.

*Disposal site: an approved site or sites where any final treatment, utilization, processing or deposition of solid waste is permitted and occurs. This includes, but is not limited to, transfer stations and intermodal facilities (included as part of the disposal system of the county), sanitary landfills, incinerators, composting plants, and the location of a facility for the recovery of energy resources from solid wastes or the conversion of the energy in such wastes to more useful forms or combinations thereof.

Drop Box Site: Previously known as Neighborhood Recycling and Disposal Centers. These serve a similar function as transfer stations but are smaller and serve mainly self-haul customers in rural areas. MSW is placed directly into an open-top container by the customer.

Ecology: the Washington State Department of Ecology (also "Ecology").

EfW: energy from waste; typically, steam or electricity derived from burning waste.

EPA: the United States Environmental Protection Agency; the federal agency responsible for promulgation and enforcement of federal environmental regulations.

E-Waste: electronics, including TVs, computers and monitors.

Feedstock: a waste or other material used to supply or fuel a machine or industrial process.

Ferrous metals: materials that are predominantly (over 75% by weight) made of iron. Includes cans and various iron and steel alloys that contain enough iron such that they adhere to magnets. For recycling purposes, this generally does not include paint cans or other containers that may contain hazardous residues.

Flow Control: The process of ensuring that garbage, including the residuals from processing recyclable materials and construction and demolition wastes, generated in Snohomish County is disposed of through the Snohomish County system. Since Snohomish County receives no local taxes or general fund revenues to maintain its solid waste programs, it is important to keep disposal fees for waste generated in Snohomish County in the local solid waste system to cover the cost of these community programs and services. In addition to providing transparency about which materials are recycled or disposed of at a landfill, flow control promotes recycling and ensures landfill-disposed materials are properly handled and disposed in the county solid waste system. Disposal fees paid at county recycling and transfer stations help fund programs like the county's Household Hazardous Waste Program, Environmental Clean-up Team, education and outreach, closed landfill management, disaster debris planning, solid waste planning, and abandoned vehicle removal. See SCC 7.35.125 for more detail.

*Garbage: material that includes all putrescible wastes, except sewage and body wastes, including vegetables, animal offal and carcasses of dead animals, but not including recognized industrial by-products, and shall include all such substances from all public and private establishments and from all residences.

GHG: greenhouse gases, including carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

Green building: methods for designing and constructing buildings so as to reduce energy and water consumption, to reduce materials consumed in the construction process, and to provide other environmental benefits.

Groundwater: water present in subsurface geological deposits (aquifers).

HDPE: high-density polyethylene, a type of plastic commonly used in milk, detergent, and bleach bottles and other containers.

Hog fuel: wood waste that is reduced in size to facilitate burning.

Household hazardous waste (HHW): wastes that would be classified as hazardous due to their nature or characteristics, except that the wastes are generated by households.

IMEX: Industrial Materials Exchange, an on-line and catalog service designed to help businesses find markets for industrial by-products, surplus materials and waste.

Incentive rates: a rate structure for certificate (franchise) areas that incorporates the cost of recycling into the cost of garbage collection, such that customers who recycle can then be charged a lower monthly fee as an incentive.

*Incineration, incinerate or incinerated: the controlled combustion of solid waste that yields satisfactory nonputrescible residues and air effluents.

*Incinerator: a furnace and associated building designed to burn solid wastes under controlled conditions of more than 50-pounds-per-hour capacity.

*Industrial waste: waste by-products of manufacturing and/or processing operations (does not include hazardous wastes generated by these industries).

Inert waste landfill: a type of landfill that only handles inert wastes (such as concrete, asphalt, glass, and a few other materials), as regulated under Chapter 70A.205 RCW and WAC 173-350-410.

*Intermodal container: any fully enclosed or open-top container designed and destined for rail shipment that is closed and sealed with a security identification tag and is not opened during transit or at the intermodal facility.

*Intermodal facility: any facility at which intermodal containers of waste are transferred from trucks for rail shipment and at which the containers are not opened for further treatment, processing or consolidation of the waste prior to final disposal. Any intermodal facility currently in use by Snohomish County or hereafter created or contracted by it, is part of the Snohomish County solid waste disposal system.

Leachate: water or other liquid within a solid waste handling unit that has been in contact with solid waste or has been contaminated due to contact with landfill gas.

LDPE: low-density polyethylene, a type of plastic commonly used for some types of packaging and products.

LEED: Leadership in Energy and Environmental Design, a standard applied to green building projects.

LQG: large quantity generator.

LSWFA: Local Solid Waste Financial Assistance, grant funds that are provided by Ecology to support solid and hazardous waste activities.

Mixed paper: a mix of various types of recyclable paper, including materials such as "junk mail," magazines, books, paperboard (non-corrugated cardboard), and colored printing and writing papers.

*Moderate risk waste (MRW): a) hazardous waste that is generated in smaller quantities than those regulated by the Department of Ecology under the Dangerous Waste Regulations (Chapter 173-303 WAC); less than 2.2 pounds (1 kg) of extremely hazardous waste per month, and less than 220 pounds (100 kg) of dangerous waste per month; and/or b) any household-generated hazardous waste, such as oil-based paints, solvents, thinners, pesticides, corrosives, cleaners, auto maintenance products and cosmetics.

MQG: medium quantity generator.

MRW: see moderate risk waste, above.

MSW: municipal solid waste (see also "solid waste").

NCRTS: North County Recycling and Transfer Station, one of the transfer stations in Snohomish County (see also "ARTS," "CWRTS" and "SWRTS").

Non-ferrous metals: materials predominantly made of copper, lead, brass, tin, aluminum, and other metals except iron.

PBTs: persistent, bioaccumulative toxins are chemicals that pose a unique threat to human health and the environment in Washington State. They remain in the environment for long periods of time, are hazardous to the health of humans and wildlife, can build up in the food chain, can be transported long distances and readily move between air, land and water media.

PET: polyethylene terephthalate, a type of plastic. Commonly used to refer to 2-liter beverage bottles, although other containers are also increasingly being made from this material, including containers for liquid and solid materials such as cooking oil, liquor, peanut butter, and many other food and household products.

Product stewardship: also known as "producer responsibility" or "extended producer responsibility" (EPR), product stewardship is a strategy designed to address the environmental impacts of products through their entire lifecycle, including end-of-life management (prevention, reuse, recycling and disposal).

Public education: a broad effort to present and distribute public information materials.

Puget Sound Clean Air Agency: the Puget Sound Clean Air Agency is an agency with regulatory and enforcement authority for air pollution issues in King, Kitsap, Pierce and Snohomish Counties.

RCRA: Resource Conservation and Recovery Act.

RCW: Revised Code of Washington.

RDC: Recycling Development Center.

*Reclamation: the process conducted at a reclamation site which consists of hand and/or mechanical segregation of source separated recyclable solid waste for sale and reuse. Materials which can be removed through reclamation include but are not limited to paper, metal, glass, plastics, aggregates and wood waste processed for feedstock, for new products or as hog fuel and used for energy recovery. Reclamation does not include combustion of solid waste, preparation of a fuel from solid waste (other than hog fuel), use of solid waste as alternative daily cover or use of solid waste as an industrial boiler fuel.

*Reclamation site: a facility compliant with local, state and federal regulation used for the processing or the storage of reclaimed material. Reclamation sites do not include locations or facilities where wastes are initially generated, such as businesses, construction sites or demolition sites.

*Recyclable materials: those solid wastes that are separated from other wastes for anaerobic digestion, composting, recycling or reuse, including but not limited to papers, metals, glass, plastics, aggregates, fabrics, yard debris, food waste, manures, wood waste and other materials that are identified as recyclable material in the Snohomish County comprehensive solid waste management plan, and are recycled. Wood waste processed as hog fuel and used for energy recovery shall be considered a recyclable material for purposes of this chapter.

Recycling or Recycled: the transformation or remanufacturing of recyclable waste materials into usable or marketable materials for use other than landfill disposal, alternative daily (landfill) cover, industrial waste stabilizer, combustion or incineration.

Reusable items: items that may be reused (or easily repaired), including things such as small electronic goods, household items such as dishes, and furniture.

SDS: Safety Data Sheets.

Self-haul waste: waste that is brought to a landfill or transfer station by the person (residential self-haul) or company (non-residential or commercial self-haul) that created the waste.

SEPA: State Environmental Policy Act.

Septage: a liquid or solid material consisting of settled sewage solids combined with varying amounts of water and dissolved materials. This waste is pumped from septic tanks, cesspools, portable toilets, pit toilets, RV holding tanks, and similar systems.

SHD: Snohomish Health District.

Single stream: refers to the practice of placing all recyclable materials together in one container for curbside collection (see also commingled and source-separated)

*Small quantity generator (SQG): a business which generates less than 220 pounds of hazardous waste or 2.2 pounds of extremely hazardous waste per month and does not accumulate more than 2,200 pounds of hazardous waste (see also conditionally exempt small quantity generators).

*Solid waste: all putrescible and non-putrescible wastes, whether in solid or in liquid form, except liquid-carried industrial wastes and sewage, and including garbage, rubbish, ashes, industrial wastes, swill, construction, demolition and land-clearing wastes, abandoned vehicles or parts thereof, discarded home and industrial appliances, manure, digested sludge, vegetable or animal solid and semi-solid wastes, dead animals, and other discarded solid and semi-solid materials. Municipal solid waste (MSW), a subset of solid waste, refers to wastes normally collected from residential households, commercial businesses, and containers.

Solid Waste Advisory Committee (SWAC): a group assisting Snohomish County with the development of this solid waste management plan, composed of representatives from the general public, private industry, and the cities.

*Solid waste disposal system facility: a facility owned and operated by the solid waste division or a facility operated under contract with the solid waste division which performs activities identified as being part of the solid waste disposal system in the Snohomish County comprehensive solid waste management plan, which includes, but is not limited to, county owned and operated transfer stations and neighborhood recycling and disposal centers (drop boxes) and the county's contracted intermodal facilities.

*Source-separation: the segregation of recyclable materials from other solid waste for the purpose of recycling, conducted by or for the generator of the materials on the premises at which they were generated. Source separation does not require that different types of recyclable materials be separated from each other.

*Special wastes: those solid wastes which require special handling either due to their posing a potential health hazard, or due to their bulky or abrasive nature which could damage transfer equipment, and which are designated as "special wastes" by the authorized designee.

SQG: see small quantity generator.

SWAC: see Solid Waste Advisory Committee.

SWRTS: Southwest Recycling and Transfer Station, one of four transfer stations in Snohomish County (see also "ARTS," "CWRTS" and "NCRTS").

*Transfer station: a staffed, fixed, supplemental, collection/transportation/disposal facility, used by collection agents, or other persons or route collection vehicles to deposit solid wastes into the larger transfer vehicle for transport to a disposal site. This does not include a detachable container or solid waste drop box. Any transfer station currently in use by Snohomish County, or hereafter created by it, is part of the Snohomish County solid waste disposal system. MSW is typically placed onto a tipping floor or pit by the customer.

UGA: Urban Growth Area, see the Snohomish County Comprehensive Plan for more details.

WAC: Washington Administrative Code.

Waste reduction or waste prevention: reducing the amount or type of solid waste that is generated. Also defined by state rules to include reducing the toxicity of wastes.

White goods: term used to refer to large appliances, such as refrigerators, stoves, dishwashers, water heaters and similar consumer products.

*Wood waste: means solid waste consisting of wood pieces or particles generated as a by-product or waste from the manufacturing of wood products, handling and storage of raw materials and trees and stumps. This includes but is not limited to sawdust, chips, shavings, bark, pulp, hog fuel, and log sort yard waste, but does not include wood pieces or particles containing chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenate.

WSDA: Washington State Department of Agriculture.

WTE: waste-to-energy.

WUTC: Washington Utilities and Transportation Commission.

Yard debris: refers to plant material, including, but not limited to, grass clippings, leaves, branches, brush, flowers, roots, windfall fruit, vegetable garden debris, and weeds commonly created in the course of maintaining yards and gardens, and through horticulture, gardening, landscaping, or other similar activities.

MODERATE RISK WASTE PLAN

SUMMARY

This document is the updated plan for moderate risk waste (MRW) management in Snohomish County.

This *Moderate Risk Waste Plan* (MRW Plan) provides several recommendations for the MRW management system in Snohomish County, including both new activities as well as refinements to existing programs. New activities being recommended include the implementation of continuous improvement initiatives and investigating a possible user fee at the MRW Facility. Recommendations for existing activities include refinements to public education programs and continuing the partnership with WSU, investigating barriers to MRW Facility usage, increased collaboration with regional and statewide MRW efforts, and reviewing and updating the MRW Facility's O&M manual.

INTRODUCTION

This MRW Plan has been prepared to provide an update of Snohomish County's plans and programs for MRW. This MRW Plan was prepared as part of the update of the *Snohomish County Comprehensive Solid and Hazardous Waste Management Plan*. As part of the solid waste plan, some of the basic requirements for this MRW Plan are fulfilled by parts of the solid waste plan, including information on the general background of the planning area, the identification and approvals by participating jurisdictions, the public participation process, and compliance with the State Environmental Policy Act (SEPA).

Definition of Moderate Risk Waste

Moderate risk waste (MRW) refers to waste materials that have characteristics similar to hazardous wastes, but are generated in relatively small quantities by individual households and in small quantities by businesses. In other words, these wastes are flammable, corrosive, toxic, reactive, and/or persistent (Chapter 70A.300 RCW, WAC 173-303-070). Federal law does not currently regulate these wastes as hazardous, but allows each state to adopt stricter regulations for hazardous waste from households and small quantity generators.

Washington State has chosen to regulate these materials. The Washington State Department of Ecology (Ecology) created a waste classification called MRW that includes household hazardous waste (which is generated by residential sources) and Conditionally Exempt Small Quantity Generator waste (which is generated by businesses, but in quantities below the current threshold for hazardous waste regulations). A State law adopted in 1991 also added used oil to the list of materials to be addressed by MRW programs.

Snohomish County Code (SCC 7.41.050) requires MRW to be brought to the proper facilities and not be disposed with solid wastes.

Household Hazardous Waste (HHW): The Hazardous Household Substances List developed by the Department of Ecology is shown in Table 1 (Ecology 2010). When generated in a residence, these products may become household hazardous wastes when they are discarded, if they are flammable, corrosive, toxic, reactive, or persistent. (NOTE: Table 1 is not all-inclusive as there are other wastes not on the list that may also be HHW.)

Table 1. Hazardous Household Substances List

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

Table 1. Hazardous Household Substances List, continued

Substance or Class of Substance	Flammable	Toxic	Corrosive	Reactive
Group 5: Hobby and Recreation, continued				
Photo Processing Chemicals	X	X	X	X
Glues and Cements	X	X	X	
Inks and Dyes	X	X		
Glazes		X		
Chemistry Sets	X	X	X	X
Pressurized Bottled Gas	X	X		X
White Gas	X	X		X
Charcoal Lighter Fluid	X	X		
Batteries		X	X	X
Group 6: Persistent Bioaccumulative Toxins (PBTs)				
Mercury				
CFLs and Fluorescent Tubes				
Auto Switches				
Thermometers		X (all)	X (all)	
Barometers				
Thermostats				
Button Cell Batteries				
Lead				
Lead-Acid Car Batteries				
Fishing Weights				
Unused Lead Shot		X (all)		
Unused Traffic Paint				
Unused Art Supplies (for stained glass and lead pottery glaze)				
Polybrominated Diphenyl Ether (PBDEs)				
Televisions				
Computers		X (all)		
Other Electronic Products				
Polycyclic Aromatic Hydrocarbons (PAHs)				
Roofing Sealant				
Pavement Sealant		X (all)		
Used Motor Oil				
Polychlorinated Biphenyl (PCBs)				
Caulking (manufactured prior to 1979)		X (all)		
Light Ballasts (manufactured prior to 1979)				
Group 7: Miscellaneous				
Ammunition	X	X	X	X
Asbestos		X		
Fireworks	X	X	X	X
Marine Aerial Flares	X	X		
Pharmaceuticals		X		
Non-Controlled Substances		X		
Sharps				
Personal Care Products	X	X	X	

Source: *Guidelines for Developing and Updating Local Hazardous Waste Plans*, prepared by the Washington State Department of Ecology, Appendix F, February 2010.

Conditionally Exempt Small Quantity Generator (CESQG) Waste: Many businesses and institutions produce small quantities of hazardous wastes. The list of these hazardous wastes is the same as for HHW (see Table 1). Conditionally exempt small quantity generators (CESQGs) may produce hazardous waste at rates less than 220 pounds per month or per batch (or 2.2 pounds per month or per batch of acutely or extremely hazardous waste) and accumulate less than 2,200 pounds of hazardous waste on-site (or 2.2 pounds of acutely or extremely hazardous waste). Extremely hazardous wastes include specific pesticides and other poisons that are more toxic or persistent than other hazardous wastes. At amounts above these limits, the businesses become medium (MQG) or large (LQG) quantity generators and must comply with the reporting and other requirements for hazardous waste management and disposal. CESQGs are conditionally exempt from State and Federal regulation, meaning that they are exempt only as long as they generate less waste than the threshold amounts and properly manage and dispose of their wastes.

Used Oil: Washington State law (Chapter 70A.224 RCW) requires that local governments manage used oil in conjunction with their MRW programs and submit annual reports to Ecology.

Goals and Policies for MRW

Current Goals and Policies: Current goals and policies specific to MRW include:

- Goal 2: Ensure efficient services for a growing and changing customer base.
- Policy 2-8, Moderate Risk Waste: Continue efforts to reduce the generation and toxicity of moderate risk waste, and to ensure that convenient, cost effective and sustainable options for its safe management are available.
- Related policies from technical memorandums in the solid waste plan include:
  - Policy 1-3, Waste Prevention: Continue to offer and develop programs that encourage waste prevention.
  - Policy 2-1, Recycling: Continue to offer and develop programs that encourage recycling.

Beyond Waste Plan Goals for MRW: Ecology is required by law (RCW 70A.300.300 and RCW 70A.205.210) to develop and update the statewide hazardous waste and solid waste plans. In 2004, Ecology simultaneously updated the *1994 State Hazardous Waste Management Plan* and the *1991 State Solid Waste Management Plan*. The updated plans were published together as the Beyond Waste Plan in November 2004. The Beyond Waste Plan was updated in 2009 and 2015.

The Beyond Waste Plan's 30-year vision states: "We can transition to a society where waste is viewed as inefficient, and where most wastes and toxic substances have been eliminated. This will contribute to economic, social and environmental vitality." The Beyond Waste Plan recognizes that "waste generation in Washington continues to increase, and that toxic substances are more prevalent in our everyday lives now than they were just few years ago." It explains why it is important to move beyond waste and

concludes "to lower the risks to people and the environment, Washington needs to shift to an approach that will significantly reduce wastes and toxic substances over time."

The Beyond Waste plan is divided into five sections, and each section presents goals and actions that can be taken over the next five years:

- Managing Hazardous Waste and Materials
- Managing Solid Waste and Materials
- Reducing Impacts of Materials and Products
- Measuring Progress
- Providing Outreach and Information

The Beyond Waste plan also incorporates the concept of sustainable materials management, which has been adapted from recent work by the U.S. Environmental Protection Agency (EPA). Sustainable materials management looks at the full life cycle of materials, from the design and manufacturing phase, to the use phase, and then to the end-of-life phase when the material is either disposed or recycled. Materials management still focuses on recycling and disposal issues, but in looking at production methods and the use of materials, this approach can help identify more sustainable ways to design products that use less energy, water and toxics. This is important because the adverse environmental impacts of extraction, production and use can be far greater than those associated with disposal when the product becomes a waste. According to the EPA, a materials management approach is essential to conserving natural resources to meet both today's needs and those of future generations.

The Beyond Waste Plan adopted the following goals for managing hazardous wastes and materials (Ecology 2015):

HWM 1: Hazardous waste generators will significantly reduce chemical use, waste, emissions, and costs by successfully implementing effective pollution prevention plans and other actions.

HWM 2: Pollution prevention planning facilities and other industries will use cleaner, more sustainable manufacturing processes and produce less toxic and more sustainable products.

HWM 3: LQGs and MQGs will comply with the dangerous waste rules and remain in compliance.

HWM 4: Communication about compliance issues will improve, so it will be easier for facilities to make corrections.

HWM 5: The Local Source Control Partnership, and other small business dangerous waste and stormwater pollution technical assistance programs, will be expanded. Fewer environmental issues will be found at facilities visited by staff.

HWM 6: All treatment, storage, and disposal facilities (TSDs) will comply with regulations and operate safely.

HWM 7: By 2020, 95 percent of corrective action sites permitted by Ecology will safely manage environmental contamination.

HWM 8: In the next five years, Ecology will issue permits for all sites and facilities that reflect current operations and ensure facilities comply with permit conditions.

HWM 9: Parties interested in permitted facilities and corrective action sites will know where to find current information.

HWM 10: Dangerous waste facilities and used oil processors will offer safe recycling.

HWM 11: Until toxic substances are phased out of products, and use of hazardous materials declines, MRW collection will be maximized.

HWM 12: MRW locations and programs will provide increased services for residents, businesses, and underserved communities.

HWM 13: Facilities that collect MRW will be properly permitted (if required) and in compliance with applicable laws and rules.

Each of these goals is accompanied by two to five objectives ("actions").

Regulations for MRW

MRW is regulated by local, State and Federal laws that govern proper handling and disposal of these wastes.

Federal Regulations: The primary Federal laws relating to hazardous waste are the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Hazardous Materials Transportation Security Act. Other Federal legislation such as the Universal Waste Rule and the Mercury-Containing and Rechargeable Battery Management Act establish rules for specific types of hazardous waste. Asbestos and a few other materials are regulated via the Toxic Substances Control Act.

a. **Resource Conservation and Recovery Act (42 U.S.C. s/s 6901 et seq.)**: The Resource Conservation and Recovery Act (RCRA) establishes responsibility and authority for managing hazardous waste. Subtitle C of the law establishes requirements for generators, transporters, and operators of hazardous waste treatment, storage and disposal facilities. Hazardous wastes must be tracked from the time they are generated until the time they are disposed using a manifest system. Subtitle D of RCRA establishes minimum requirements for construction and operation of solid waste disposal facilities. It seeks to ensure that landfills receiving household hazardous waste and small quantity generator waste meet minimum design and construction standards. Ecology has been delegated the authority to enforce the provisions of RCRA.

b. **Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. s/s 9601 et seq.)**: CERCLA, also known as the Superfund act, provides the Environmental Protection Agency with the authority to clean up disposal sites contaminated with hazardous waste. The legislation enables the agency to identify

responsible parties and assess liability for cleaning up individual sites. The Superfund Amendments and Reauthorization Act establishes requirements related to emergency response planning and community notification of chemical releases.

c. **Toxic Substances Control Act**: The Toxic Substances Control Act of 1976 (TSCA) provides EPA with authority to require reporting, record keeping and testing, and establishes restrictions relating to chemical substances and/or mixtures. TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, and lead-based paint. Certain substances are generally excluded from TSCA, such as food, drugs, cosmetics and pesticides.

d. **Hazardous Materials Transportation Law (HM-181)**: In 1974, the Hazardous Materials Transportation Act gave the Department of Transportation (DOT) the authority to regulate the movement of substances that pose a threat to human health and safety, property, or the environment. In 1990, the Transportation Uniform Safety Act became law. The goal of this act was to create a uniform system for transporting hazardous materials and to make U.S. regulations on hazardous material packaging and transportation consistent with United Nations standards. This law led to promulgation of the Hazardous Material Regulation 181 (HM-181). This regulation governs the packing, shipping, and labeling of hazardous materials and waste in transportation. This law also has requirements for generator and shipper training.

e. **Enhancing Hazardous Materials Transportation Security (HM-232)**: HM-232, which went into effect March 25, 2003, amended the hazardous materials transportation rules to require that persons who transport, or offer for transportation, certain types of hazardous materials develop and implement a security plan. This rule also requires that employees be provided with security awareness training. This rule applies to Snohomish County's MRW Facility due to the types and quantities of wastes collected and shipped. The intent of the security plan is to prevent theft of flammable or explosive materials that could be used in acts of terrorism.

f. **Occupational Safety & Health Administration (OSHA)**: Various OSHA rules provide for worker safety protection in activities related to hazardous waste management. One of the primary rules is contained in 29 CFR Part 1910. Subpart H (Part 1910.120) of this rule addresses requirements for training and safety for workers in RCRA facilities, and also for workers involved in clean-up and emergency response activities.

State Regulations: One of the primary State laws that directly affects MRW is the Hazardous Waste Management Act (Chapter 70A.300 RCW) and the associated rules (Chapter 173-303 WAC and WAC 173-350-360). A few of the more significant State laws are summarized below.

a. **Hazardous Waste Management Act (Chapter 70A.300 RCW)**: The Hazardous Waste Management Act addresses state and local hazardous waste management plans, rules for hazardous waste generation and handling, criteria for siting hazardous waste management facilities, and local zoning designations that permit

hazardous waste management facilities. The Hazardous Waste Management Act also establishes waste management priorities for hazardous wastes. In order of decreasing priority, the management priorities are:

- waste reduction
- waste recycling
- physical, chemical, and biological treatment
- incineration
- solidification/stabilization/treatment
- landfill

This waste hierarchy is a key element in determining the compliance of this MRW Plan with State requirements.



MRW Waste Management Hierarchy, from *Guidelines for Developing and Updating Local Hazardous Waste Plans*, Ecology 2010.

b. **Dangerous Waste Regulations**: Rules implementing the Hazardous Waste Management Act are codified in the Dangerous Waste Regulations (Chapter 173-303 WAC). This regulation defines dangerous waste materials and establishes minimum handling requirements. State rules specifically exclude household hazardous waste and conditionally exempt small quantity generator wastes from the Dangerous Waste Regulations. The Dangerous Waste Regulations have been amended several times over the years, most recently in 2019.

c. **Ban on Disposal of Automobile Batteries**: The Solid Waste Management Act (Chapter 70A.205 RCW) prohibits the disposal of automobile batteries and requires retail vendors to accept used batteries for recycling.

d. **Ban on Disposal of Mercury Lighting**: Legislation passed in 2010 (Chapter 70A.505 RCW and Chapter 173-910 WAC) prohibits the disposal of mercury lighting with solid wastes.

e. **Paint Stewardship Program**: A new product stewardship program for paint went into effect in April 2021 per a State law recently adopted (Chapter 70A.515 RCW). This program will reduce the volumes and costs for the MRW facilities operated by Snohomish County and other counties in Washington.

Local Regulations: Local regulations can be more stringent than Federal and State regulations. Snohomish County has adopted local regulations that are more stringent in some ways. The following local regulations pertain to MRW.

a. **Snohomish Health District Sanitary Code Chapter 2.15, Solid Waste Handling Regulations:** The Snohomish Health District (SHD) Sanitary Code section

pertaining to MRW handling (Section 2.15.210) prohibits HHW or CESQG waste from being placed into the solid waste collection system (or into septic systems, stormwater systems or otherwise released into the environment). This regulation allows for the disposal of MRW at permitted facilities and product take-back centers.

b. **Snohomish Health District Sanitary Code Chapter 2.20**: SHD has fully incorporated Washington's Solid Waste Handling Standards (Chapter 173-350 WAC) into their Sanitary Code, as Chapter 2.20. WAC 173-350-360 provides handling and management standards related to MRW facilities.

c. **Snohomish County Code 7.41.050**: The Snohomish County Code (SCC) includes definitions and restrictions regarding hazardous waste and moderate risk waste. SCC 7.41.050 prohibits the disposal of moderate risk waste and hazardous waste except at facilities designated for those wastes, and also prohibits the disposal of pharmaceutical wastes at solid waste facilities, including expired, unused or contaminated drugs and vaccines.

d. **Snohomish County Public Works Solid Waste Division Waste Acceptance Policy**: The Waste Acceptance Policy does not allow for the disposal of the following as garbage: household hazardous waste, business-generated hazardous waste, computer monitors, televisions, computers, cell phones, separated circuit boards and other cathode ray tube devices, pressurized canisters and tanks, appliances that use chlorofluorocarbons (CFCs), asbestos and asbestos-containing materials, and liquid wastes.

EXISTING PROGRAM ELEMENTS

Evaluation of Current MRW and Oil Programs

1. HHW Collection Program: Snohomish County operates a facility to collect and properly dispose of household hazardous wastes. The MRW Facility is located in Everett. The County has also recently conducted community roundup events in Darrington and Sultan for the collection of household hazardous waste. Households may bring accepted items free of charge to the MRW Facility or to the roundup events. Many additional locations for the collection and proper disposal/recycling of select materials are also provided by retailers, manufacturers and other businesses throughout the County. The primary collection methods are described further below:

a. **MRW Collection Facility**: The MRW Facility accepts a wide variety of hazardous waste, and a complete list of the currently-acceptable items is shown on Snohomish County's website. In 2019, the MRW Facility served 14,808 residential customers and collected 1,505,568 pounds (752.8 tons) of materials (including some non-hazardous materials but not including motor oil, oil filters and antifreeze). The MRW Facility also accepts waste from small businesses, but for a fee and only by appointment (see later section for more details). Table 2 provides more details about the wastes collected.

Table 2. MRW Quantities Collected by Snohomish County in 2019 (pounds)					
Waste Type	**HHW**	**CESQG**	**Roundups**	**Totals**	**Disposal Method**
Hazardous Materials:					
Batteries;					
Household	63,956	9,278	286	73,520	Recycled
Automotive	165,645	0	1,406	167,051	Recycled
Ni-Cd	14,420	562	13	14,995	Recycled
Flammable Liquids	125,464	21,567	1,399	148,430	Energy recovery
Fluorescent Tubes and CFLs	84,681	10,988	302	95,971	Recycled
Paint;					
Latex[1]	376,478	38,854	0	415,332	Reused or disposed
Oil Based	193,134	46,932	0	240,066	Energy recovery
Other Hazardous Wastes	90,680	27,156	5,565	123,401	Varies
Waste Oil and Related Materials;					
Used Oil		862,159		862,159	
Used Oil Filters		37,030		37,030	
Antifreeze		122,168		122,168	
Total Hazardous Wastes	**1,114,458 (2,135,815 with oil and antifreeze)**	**155,337**	**8,971**	**2,300,123 pounds, or 1,150 tons**	
Non-Hazardous Materials:					
Non-Regulated Liquids	11,170	38,898	0	50,068	Disposed
Non-Regulated Solids	97,929	12,506	0	110,435	Haz. waste disposal
Used Cooking Oil (Biodiesel)	46,157	759	53	46,969	Recycled
Propane Tanks	105,683	0	0	105,683	Recycled
Other Materials Recycled, Reused	130,171	308	208	130,687	Reused or recycled
Total Non-Hazardous	**391,110**	**52,471**	**261**	**443,842**	
Grand Totals, All Materials	**2,526,925 (with oil and antifreeze)**	**207,808 pounds**	**9,232 pounds**	**2,743,965 pounds, or 1,372 tons**	

Notes: The above data is from the annual reports to Ecology prepared by Snohomish County. The amount of waste oil includes materials collected at the MRW facility, transfer stations and the drop boxes, but not other (private) sites in the county.

b. **Hazardous Waste Roundup Events**: Households may bring hazardous waste items to scheduled roundup events for free. No business waste is accepted at the roundups. Roundups have been held in Darrington and Sultan in recent years. These events served a total of 156 residential customers in 2019, ranging from 30 in Darrington to 126 in Sultan. The total amount of waste collected at these events in 2019 was 9,232 pounds (see Table 2 for more details on the types of wastes collected).

c. **Snohomish County Transfer Stations**: Limited quantities of certain hazardous wastes are accepted for recycling from households, free of charge, at Snohomish County transfer stations and drop box sites. These items currently include antifreeze, batteries, fire extinguishers, fluorescent tubes and compact fluorescent bulbs, motor oil, oil filters, and propane tanks.

2. Public Education: The County conducts several activities to educate residents about proper handling and disposal of HHW. These include information provided on their website and the distribution of brochures that address specific topics such as pharmaceuticals. The County has also worked with local haulers to help provide clear MRW management instructions to customers through their websites.

3. Small Business Technical Assistance: Many of the activities conducted by Snohomish County to educate residents about HHW also serve to educate businesses about CESQG wastes. There are also specific activities that target businesses.

If a business accumulates more than the eligible CESQG amounts, the business may become a fully-regulated generator of hazardous waste. Snohomish County Solid Waste staff can provide other hazardous waste management and disposal options, including a list of vendors who will pick up hazardous wastes from the business.

4. Small Business Collections: State and Federal law requires businesses to properly manage and dispose of chemical waste. Business hazardous wastes include items such as dyes, paints, inks, thinners, sludges, solvents, pesticides, chemicals, acids, and caustics. The MRW Facility is open to CESQG businesses by appointment only. A fee is charged for the service. Businesses must have their Safety Data Sheets (SDS) and be ready to identify the class of hazardous wastes they are disposing. A business may qualify as a CESQG if:

- the business generates less than 220 pounds of hazardous waste per month or accumulates less than 2,200 pounds of hazardous waste at one time.
- the business generates less than 2.2 pounds of acutely or extremely hazardous waste per month, or accumulates less than that amount at any one time.

In 2019, the MRW Facility served 543 CESQGs and collected a total of 207,808 pounds (103.9 tons) from these generators (not including oil, oil filters and antifreeze). See Table 2 for details on the types of wastes collected.

5. Enforcement: The Snohomish Health District is the lead agency for the enforcement of solid waste and MRW management issues in Snohomish County. They enforce MRW regulations via complaint investigations and via permitting of MRW facilities. Many of these complaints involve illegal dumping or improper storage and disposal of wastes, such as batteries, used oil, gasoline, paint and paint-related chemicals.

While SHD serves as the lead enforcement agency, they also work cooperatively with the Division to provide various education and outreach programs dealing with MRW management. Additionally, SHD provides public education to homeowners and CESQGs. Homeowner education is delivered as part of their complaint investigation process. CESQG technical assistance is also conducted as part of their complaint investigation process. In addition, a business-oriented Pollution Prevention Assistance program focuses on solid and hazardous waste management, pollution prevention, and storm water issues.

To accomplish specific regulatory and public outreach objectives, SHD created a grant-funded program. Accomplishments include adoption of countywide MRW regulations; educational outreach intended to reduce the amount of MRW generated; and outreach geared toward proper handling and disposal of MRW. For example, SHD has a program that permits and inspects MRW collection facilities to ensure that there is no threat to public health or the environment. Permitted MRW facilities, as of mid-2020, include the Port of Edmonds, Pristine Environmental Services, Refined Solutions (processors of dental amalgam), and the Snohomish County MRW Facility.

In the case of illicit disposal, Ecology may manage spills or releases through WAC 173-303-050, -145, and/or -960.

6. Used Oil and Automotive Fluids Collection and Education: Automotive fluids and batteries cannot be disposed as garbage and must be handled properly. These materials must be taken to a proper handler, such as the County's MRW Facility or a reputable business. Many private businesses such as auto parts stores or service stations provide recycling services for car batteries, used motor oil, oil filters, and antifreeze. Battery retailers will accept car batteries from customers and the public.

7. Other Program Elements: Other important aspects of the MRW program include various activities and issues:

a. **Toxicity Reduction and Waste Prevention**: Reducing or eliminating toxicity in products or the use and disposal of toxic products is not only important to protect human health and the environment, but it can save manufacturers, customers, rate payers and the County significant costs for managing hazardous materials. When able, the County participates in state and nationally convened processes to address toxicity reduction.

b. **Financing the MRW Program**: The cost of operating the MRW Facility is covered by Local Solid Waste Financial Assistance (LSWFA) funds from Ecology, with a minimum of 25% matching funds provided by Snohomish County. Fees charged to

CESQGs defray a portion of the cost of disposing of their waste. Product stewardship programs provide funds for handling some MRW at other locations and offset some costs that would otherwise be incurred by the Division.

c. **Governance Structure**: The Snohomish County Solid Waste Division is the lead agency for collection and education programs for MRW, and operates a facility to collect and properly dispose of MRW. The Snohomish Health District is the lead agency for the enforcement and compliance activities for solid waste and MRW management issues in Snohomish County, and also conducts some education for MRW.

d. **Agricultural Waste Collection**: The Washington State Department of Agriculture (WSDA) conducts agricultural chemical waste collections annually, but none have been held in Snohomish County recently. Locations for events are determined by the number of requests. The closest events in the past year (2019) have been in Seattle and Mount Vernon. Participants must sign up in advance to bring wastes to these collection events, but there is no cost to participate.

Inventory of Generators and Facilities

RCW 70A.300.350(1)(a) requires MRW plans to contain an assessment of the quantities, types, generators and fate of MRW in each jurisdiction. Not all of the necessary data to conduct a complete assessment is currently available, but the data that is available on the number of potential generators is summarized in Table 3. At first glance, the data in Table 3 may appear to indicate that only a low number of MRW generators (4.7% of the residential households and 2.7% of the potential non-residential generators) bring their wastes to the MRW Facility or to the roundups. That conclusion would actually be incorrect, however, due to several factors:

- Not every household and business is an MRW generator, or at least not in every year. For residential sources especially, products may be stored for several years before the resident does a "clean-up" or determines that the material is no longer useful and is thus an MRW.
- An unknown number of households and businesses use other product stewardship, take-back or drop-off sites for the more common wastes (electronics, oil, batteries, antifreeze, mercury lighting and devices, and other MRW).
- An unknown number of CESQGs and large-quantity generators use the services of private collection companies for their hazardous wastes instead of the MRW Facility.

Hazardous Waste Inventory

Ecology's guidelines for MRW plans require that the following pieces of information be addressed (Ecology 2010). The following information helps provide a full inventory of

Table 3. Characteristics of MRW Generators			
	Residential Generators	Businesses and Institutions	Comments
Number of Households or Businesses	316,948[1]	20,228[2]	Not all residents and businesses are generators of MRW.
Number of Customers using the MRW Facility and Roundups in 2019	14,964	543	These figures are not adjusted for multiple trips to the MRW Facility or Roundups by the same customer.
Number of Participants for Other Programs	Unknown	Unknown	An unknown number of people are recycling electronics, oil, batteries, mercury lighting, and other MRW materials through various other product stewardship, take-back and drop-off programs, and an unknown number of businesses are disposing of wastes through that and private collection services.

Notes:
1. The number of households (2019) includes one-unit dwellings (209,279), two+ units (88,064) and mobile homes/special units (19,605) (OFM 2020).
2. The number of businesses is a third quarter 2019 figure from the Washington State Employment Security Department's web page https://esd.wa.gov/labormarketinfo/covered-employment (ESD 2020).

hazardous waste management in a community, by addressing dangerous waste generators (i.e., large-quantity generators), contaminated sites, transporters and processing facilities, and locations where hazardous waste facilities are allowed to be sited ("zone designations"). For most of the following items, however, the actual information is both lengthy and subject to change. Rather than attempt to show all of the information here, the following provides a summary and also sources for updated information.

Dangerous Waste Generators: Ecology's records (Ecology 2020a) show that the following numbers of businesses and institutions in Snohomish County are registered as hazardous waste generators as of June 2020:

- 53 large-quantity generators
- 59 medium-quantity generators
- 155 small-quantity generators[1]
- 80 non-generating sites and transporters with active EPA or state identification numbers, but who did not generate waste in the most recent year.

[1] This figure includes only those small-quantity generators that have chosen to get an EPA identification number (which is not required for CESQGs), and the actual number of CESQGs is much higher than this figure.

Remedial Action Sites: Ecology's list of confirmed and suspected contaminated sites in Snohomish County can be found at https://apps.ecology.wa.gov/tcpwebreporting/ . The sites are listed in five categories and the following figures are current as of May 22, 2020 (Ecology 2020b):

1. **Brownfield Sites** – 4 sites. Brownfield sites are abandoned or under-utilized properties where potential liability due to environmental contamination and clean-up costs complicate redevelopment.

2. **Environmental Covenants Register** – 34 sites. This registry is a list of sites that have residual contamination after the clean-up has been completed. These sites have environmental covenants or deed restrictions limiting the types of uses on the property.

3. **Leaking Underground Storage Tanks** – 572 records. This report contains information on Underground Storage Tank facilities that require clean-up and their clean-up history.

4. **State Cleanup Sites**:

a) Confirmed and Suspected Contaminated Sites – 496 records. This report contains information about sites that are undergoing clean-up and sites that are awaiting further investigation and/or clean-up.

b) No Further Action Sites – 614 records. This data set contains information about sites previously on the Confirmed and Suspected Contaminated Site list (above) that have received a No Further Action decision. These sites may have deed restrictions or environmental covenants.

5. **Regulated Underground Storage Tanks** – 1,165 records. Washington State regulates active storage tanks on different properties, including gas stations, industries, commercial properties, and governmental entities.

Hazardous Waste Services (Transporters and Facilities): A large number of private companies provide transportation and disposal services for a wide range of materials. According to data from Ecology, there were 87 companies registered to transport dangerous waste in Snohomish County in 2020 (Ecology 2020a).

Zone Designations: As part of the development of the original MRW plans, local jurisdictions were required by State law (RCW 70A.300.370) to designate zones within their borders where hazardous waste facilities would be permitted to operate and to notify Ecology of those designations. In Snohomish County, that was done as part of the 1993 plan and those designations are presumed to be in effect still. Cities that have been incorporated since that time, however, may not be in compliance with this requirement.

PLANNING ISSUES

General Planning Issues

The existing service gaps and other issues connected to the specific components that are required to be addressed by local moderate risk waste management programs are addressed below.

- Most of the MRW collected in Snohomish County is handled through product stewardship, take-back, or other business-provided services. The materials with the highest rates of diversion from solid waste disposal are those materials for which there are many widespread collection opportunities. Developing similar programs for a wider range of MRW would help increase the diversion of these wastes from disposal.

- Implement continuous improvement projects at the MRW facility to streamline existing or stagnant workflows.

- Current and ongoing efforts to inform the public about opportunities for proper disposal of MRW appear to be adequate based on the quantities of materials being collected. More education will be needed for new programs.

- Business collection services are currently being provided through the MRW Facility and other opportunities, including private contractors. These programs appear to be working well for many of the materials. In addition, as with residential generators, regular reminders about disposal requirements and opportunities are helpful for maintaining the current level of compliance.

- Enforcement is currently being conducted on a complaint-based system and there are no known problems with this approach.

- The recovery of used oil, antifreeze and automotive batteries appears to be very good and few service gaps or other issues appear to exist for these wastes.

Long-term Planning Issues

- Significant improvement has been made in recent years in reducing or eliminating toxicity in products or the use and disposal of toxic products, but more could be done in this area.

- The County's current MRW collection activities are funded primarily by the LFSWA grant program administered by Ecology, and in the long term the MRW program may need an alternative funding source if LFSWA grants become unavailable.

- The increased use of product stewardship programs could help provide new funding methods and address other MRW management issues. The new product stewardship program for paint, for instance, will eliminate (or at least provide an

alternative funding source for) 24% of the materials currently handled by the MRW Facility (see Table 2). As more product stewardship programs are developed, the County will need to determine to what extent, if any, they can and will participate in those programs (through the MRW Facility or other means). As a central location being used for other materials, the MRW Facility (and by extension, the mobile collection events) can provide a good opportunity to collect materials for a product stewardship program. Those programs will, however, need to make sense for the County (i.e., not create unreasonable demands on finances or operations).

ALTERNATIVES

Alternative A – Public Education for Household Hazardous Waste

Household hazardous waste education programs focus on identifying household products that contain hazardous ingredients, promoting safer alternatives, and explaining how to dispose unwanted products that contain hazardous substances. The Division could review the existing outreach and update material as needed. In addition, rather than solely continuing an independent education program for moderate risk waste, Alternative A attempts to incorporate the message into other programs that also benefit from proper household hazardous waste management. Other programs that have common objectives include programs that deal with storm water, groundwater, municipal wastewater treatment, and on-site sewage systems. By coordinating the message with other resource protection and waste management programs, the message would be repeated, and attention would be focused on the multiple benefits of the higher-priority management practices.

Alternative B – Continuous Improvement (CI)

Snohomish County has implemented an ongoing effort to analyze and improve existing workflow and processes, evaluate programs and adjust as needed to a variety of solid waste initiatives. In the Moderate Risk Waste facility, this may include a review and evaluation of administrative, planning, fiscal or operational-centric workflows. The Division has identified several CI/MRW oriented projects including:

- Adding new containers to collect small propane tanks at transfer station recycle areas.
- Evaluating how cooking oil is collected and processed.
- Enhancing MRW facility access to the Internet for research and data entry.
- Re-evaluating the phone tree structure and adjust the customer service model.

Alternative C – User Fees at the MRW Facility

A nominal fee could be charged, such as $5.00 per visit or a fee per item, for the use of the MRW Facility or mobile collection events. Similar fees are charged in many areas of the state. The CESQGs using the MRW Facility already pay a fee, so this alternative

applies only to the residential customers at that facility (and at the mobile collection events). A fee such as this would help educate the public that there is a cost for this service and that the use of less-toxic products would be less expensive. On the other hand, a fee could discourage participation in HHW programs and reduce proper disposal of HHW.

Alternative D – Increased Promotion of MRW Facility

Use of the MRW Facility could be increased by publicizing it more, and by emphasizing the importance of proper disposal of even a small amount of toxic material. Any publicity should target specific audiences or issues. Target audiences should include those types of people that may be generating MRW but that aren't using the facility as much as other groups. Once a target audience is defined (residential and/or commercial, specific gender and age groups, etc.), a variety of methods could be implemented to increase the awareness of the MRW Facility.

The County could also review the possible barriers and benefits for potential users of the MRW Facility. Some barriers could include that they do not find it convenient, they do not know the hours or location, they do not want to spend any money or do not know that it is free (for residential users), they do not want to transport just a small quantity of toxics, they do not know how to transport their waste products, or there are language barriers. The County could get a measure of the magnitude of these barriers by conducting a brief survey of people in the target audience to ask them what prevents them from using the MRW Facility. Once the barriers are assessed, the County could promote an appropriate message via a variety of methods:

- social media postings.
- tokens, coupons, or vouchers, distributed by direct mail or utility bill inserts (although already free to residential users, this could be an effective way to get some people's attention).
- posting MRW facility information at local libraries, schools, universities, city halls, county offices, transfer stations, public facilities, and locations serving other ethnic groups.
- more promotion of the MRW facility on the Snohomish County and other websites.
- radio ads.
- press releases.

The preferred strategy will depend on the target audience and the nature of the participation barriers.

Alternative E – Coordination and Collaboration with Regional Jurisdictions

Snohomish County can become more involved with regional and statewide efforts to manage HHW. County staff should meet regularly with staff from other county, city and state agencies to compare and improve HHW programs. Continuing this involvement

can provide a number of benefits in managing regional HHW.

Alternative F – Washington State University Extension Service Partnership

Snohomish County could continue the existing partnership with the WSU Extension Service to provide continuing educational services on HHW topics. The WSU Extension service will collaborate with the Solid Waste Division to develop new educational components and establish program preferences to align with Division priorities. The County has found good results in waste reduction and recycling outreach through the work of WSU Extension staff and volunteers.

Alternative G – Operations and Maintenance (O&M) Manual Update

The Division could review and update the MRW Facility's O&M manual to align with current programs and equipment standards and practices.

RECOMMENDATIONS

The following recommendations are being made for MRW programs:

MRW1) Public education programs for household hazardous wastes will be conducted through collaboration with other agencies and groups.

MRW2) Implement MRW oriented continuous improvement projects and report back to SWAC on implemented improvements or operational changes.

MRW3) Explore user fees for residential customers of the MRW Facility and mobile collection events.

MRW4) A promotional campaign will be implemented to identify and address barriers that are preventing greater usage of the MRW Facility.

MRW5) Engage in regional and statewide coordination and collaboration efforts.

MRW6) Continue partnership with the WSU Extension Service to provide educational services specific to the MRW facility and HHW.

MRW7) Review and update the MRW Facility's O&M manual to align with current programs and equipment standards and practices.

Snohomish County is the lead agency for most of the above recommendations, although MRW1 and MRW5 depend on collaboration with other departments and agencies or with the private sector.

None of the recommendations require new capital investments, and the costs for most are limited to additional staff time and some expenses for outreach materials. For the schedule, most of the recommendations can and should be implemented over the next six years.

More information about the lead agencies, budget and schedule for the above recommendations are shown in the following implementation plan.

IMPLEMENTATION PLAN

Schedule and Financing for Implementation

The proposed implementation schedule and agency with the primary responsibility for each recommendation is shown in Table 4. The entities shown as having responsibility for implementation are the primary agencies responsible for this, but it should be understood that these agencies will need assistance from others (especially the municipalities and private companies such as waste collection firms).

Table 4. Six-Year Implementation Schedule

Recommendation	Implementation Responsibility	Year of Implementation					
		2021	2022	2023	2024	2025	2026
MRW1) Public education programs for HHW will be conducted through collaboration with other agencies and groups.	County	Ongoing					
MRW2) Implement MRW oriented continuous improvement projects and report back to SWAC on implemented improvements or operational changes.	County	Ongoing					
MRW3) Explore user fees for residential customers of the MRW Facility and mobile collection events.	County		X	X			
MRW4) A promotional campaign will be implemented to identify and address barriers that are preventing greater usage of the MRW Facility.	County				X	X	
MRW5) Engage in regional and statewide coordination and collaboration efforts.	County	Ongoing					
MRW6) Continue partnership with the WSU Extension Service to provide educational services specific to the MRW facility and HHW.	County	Ongoing					
MRW7) Review and update the MRW Facility's O&M manual to align with current programs and equipment standards and practices.	County	Ongoing					

Notes: County = Snohomish County, primarily the Solid Waste Division but may include the Snohomish Health District and other County departments.

Table 5 shows the approximate budget for the activities recommended in this plan.

Because this MRW Plan is being updated during a pandemic and the timing and extent of the economic recovery are currently unknown, it is particularly difficult to project waste generation and the resultant need for additional facilities and programs. Ongoing monitoring of various developments and possible future amendments will allow this MRW Plan to continue to serve Snohomish County beyond the next six years if desired.

Monitoring Future Performance

Moderate risk waste management in Snohomish County will continue to evolve based on changes in population and other demographic factors; the local, state, and national economy; regulations; and advancements in waste handling and recycling. Snohomish County staff will continue to monitor these factors and other changes that may occur, with the intent of developing new programs or changing existing programs to meet the needs of the county's residents and businesses. Snohomish County staff will also continue to stay informed on new regulations being developed on the state and national levels. New developments will be shared and discussed with the SWAC, as appropriate. Significant changes in MRW programs will be addressed through amendments to this MRW Plan.

Snohomish County staff will also monitor the tonnages of wastes collected at the MRW Facility and through other methods (using the annual data collected by Ecology and other sources as available) as indicators of the effectiveness of collection programs. Any large increases or decreases in specific wastes or collection tonnages will be investigated if those changes cannot be easily explained by program changes or other known factors.

Future Amendments to MRW Plan

As part of the *Snohomish County Comprehensive Solid and Hazardous Waste Management Plan*, the schedule and approach for amending this MRW Plan should be the same as the Solid Waste Management Plan. This does not, however, prevent the following steps from being taken:

- This MRW Plan could be separated from the Solid Waste Management Plan in the future if this was deemed advantageous.
- This MRW Plan could be amended separately in the future if necessary. For instance, the implementation section of this plan could be amended to reflect changes in plans, funding or priorities, or changes that occur for reasons outside of the County's control.

Implicit in the development and adoption of this plan is the understanding that emergency actions may need to be taken by the County in the future for various reasons, and that these actions can be undertaken without needing to amend this plan beforehand. In this case, Snohomish County staff will endeavor to inform the SWAC and other key stakeholders as soon as feasibly possible, but not necessarily before new

Table 5. Six-Year Implementation Budget for Additional Costs (in $1,000's)							
Recommendation	Year of Implementation						
	2021	2022	2023	2024	2025	2026	Funding Source
MRW1) Public education programs for HHW will be conducted through collaboration with other agencies and groups.	Existing costs plus small amount of additional staff for coordination with others.						Existing funding
MRW2) Implement MRW oriented continuous improvement projects and report back to SWAC on implemented improvements or operational changes.	Staff time						Existing funding
MRW3) Explore user fees for residential customers of the MRW Facility and mobile collection events.	Staff time						Existing funding
MRW4) A promotional campaign will be implemented to identify and address barriers that are preventing greater usage of the MRW Facility.				15	15		Solid waste tipping fees
MRW5) Engage in regional and statewide coordination and collaboration efforts.	Existing costs plus small amount of additional staff for coordination with others.						Existing funding
MRW6) Continue partnership with the WSU Extension Service to provide educational services specific to the MRW facility and HHW.	15	15	15	15	15	15	Solid waste tipping fees
MRW7) Review and update the MRW Facility's O&M manual to align with current programs and equipment standards and practices.	Staff time						Existing funding
Total Costs	15	15	15	30	30	15	

Notes: All figures are in thousands of dollars.

actions are implemented. If an emergency results in permanent and significant changes to the Snohomish County waste management system, an amendment to this plan will be prepared. If, however, the emergency actions are only undertaken on a temporary or short-term basis, an amendment will not be considered necessary. Any questions about what actions may be considered "temporary" or "significant" will be brought to the SWAC for their advice. If emergency actions have temporary or significant budget or service impacts, the County Council will be advised. Any future modifications to the list of materials handled by the MRW Facility and by the roundups, as well as the frequency (including cancellation altogether) and locations of the roundups, are not considered sufficiently significant to require an amendment to this MRW Plan.

REFERENCES

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Ecology 2015. Washington Department of Ecology, *Moving Washington Beyond Waste and Toxics,* June 2015 (Publication #15-04-019).

Ecology 2020a. Washington Department of Ecology, information provided by email from Megan Warfield to Rick Hlavka, June 17, 2020.

Ecology 2020b. Washington Department of Ecology, Toxics Cleanup Program Web Reporting, https://apps.ecology.wa.gov/tcpwebreporting/, May 2020.

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OFM 2020. *Postcensal Estimates of Housing Units, April 1, 2010 to April 1, 2019* (https://www.ofm.wa.gov/washington-data-research/population-demographics/population-estimates/april-1-official-population-estimates), Office of Financial Management, May 2020.

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SOLID WASTE FACILITY SITING

INTRODUCTION

Solid waste management plans (SWMP's) in Washington State typically have included information related to the siting of solid waste disposal facilities. Historically, this dates back to the late 1980s when there was considerable concern about the proper siting of new state-of-the-art solid waste landfills to replace old, unlined landfills and dumps. Information about a county's geography, geology, soils, slopes, seismic hazard areas, groundwater, surface water (rivers, creeks, and lakes), flooding, land use, and air emissions was previously included in a SWMP because these conditions are most relevant to siting a new landfill.

Snohomish County currently sends the county's municipal solid waste (MSW) to a privately owned and operated landfill in central Washington, and has no immediate plans to develop an MSW landfill in the county. It is equally unlikely that a private entity would wish to construct a solid waste landfill in Snohomish County, in part because there are already three very large, privately-owned regional MSW landfills in Oregon and Washington. These three landfills are in low-rainfall areas that are better suited for landfills than Snohomish County, and together provide sufficient competition such that there would be little economic motivation for either the County or a private entity to consider siting an MSW landfill within Snohomish County.

Some of the factors for siting a disposal facility would also be relevant to other types of solid waste facilities such as transfer stations, inert waste landfills, construction and demolition (C&D) waste processing facilities, recycling facilities, composting facilities, and energy from waste (EfW) facilities. Hence, this technical memo provides information about siting solid waste facilities in general.

SOLID WASTE FACILITY SITING PROCESS

New or improved technology or materials markets may motivate the proposed development of other types of solid waste facilities such as inert waste landfills, recycling or waste processing facilities, solid waste transfer stations or other facilities.

State Regulations

If the County or a private entity were to propose development of a solid waste facility, it would be evaluated using Washington state rules such as the Solid Waste Handling Standards (Chapter 173-350 WAC).

Snohomish County Regulations

Snohomish County standards such as the County Code and the *Snohomish County Comprehensive Plan*, as well as municipal, zoning, and land use codes, would apply to

solid waste facility siting. All of these other documents provide a more up-to-date source for information about siting factors and considerations (and hence are hereby incorporated by reference).

The *Snohomish County Comprehensive Plan*, most recently amended in 2016, serves as a guide to the county's future growth and development through 2025. The Comprehensive Plan includes the following five sections:

- General Policy Plan
- Future Land Use Map
- Transportation Element
- Capital Facilities Plan
- Park and Recreation Element

The Capital Facilities section of the General Policy Plan identifies solid waste facilities as an "essential public facility" and states that a process for the siting of these and other facilities will be established though the county's development regulations (see Goal CF 12 and related policies). The Capital Facilities section also contains goals and policies that commit to ensuring that an adequate number and distribution of facilities are available to encourage the proper disposal of solid and hazardous wastes (see Objective CF 4.B).

Summary of Siting Process Steps

In general, the siting process for a solid waste facility would include the following steps:

1. **Site Identification**: For a public facility, the process of identifying sites may include soliciting nominations from citizens and interested parties, identification of major landholders and City/County properties, and other activities to initially identify as many sites as practical. For a private site, the site selection process may consist primarily of an inventory of sites currently owned or available for purchase.

2. **Broad Site Screening**: This step typically involves evaluating potential sites for "fatal flaws," such as unsuitable neighboring land use, distance from the point of waste generation, site size, steep slopes, floodplain area, wetlands, surface water or shorelines. For a public site, the goal should be to retain up to 12 sites after this step is completed. For a private facility or other cases where there may be only a few sites to begin with, only one or two sites need to survive this evaluation.

3. **Detailed Site Ranking**: After sites with fatal flaws have been eliminated, the remaining sites should be evaluated against more detailed criteria such as the availability of utilities (water, sewer, and electricity), traffic impacts and road access, and other factors affecting the ability to develop and use the site. For a public effort, no more than four sites should remain after this step is completed.

4. **Detailed Site Evaluation**: The final step in evaluating potential sites involves a detailed investigation to assess environmental impacts, in accordance with the State

Environmental Policy Act (SEPA). This includes significant public involvement to ensure that stakeholders and citizens have sufficient input to the process. This step should result in the recommendation of a preferred site.

5. **Siting Decision**: Finally, the decision to proceed with a recommended site should be based on environmental, engineering, financial and political factors, and then more detailed plans can be developed and the permitting process can begin.

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WASTE QUANTITIES AND COMPOSITION

SUMMARY

This appendix provides information on waste disposal amounts, waste generation rates (current and projected), waste composition, and recovery rates for recycled materials. This data is used in the *Snohomish County Comprehensive Solid and Hazardous Waste Management Plan* (the "Plan") to assess the need for new programs or determining the impact of a proposed new program.

INTRODUCTION

The data in this appendix is organized chronologically:

- past disposal amounts
- current data on recycling levels, waste composition and recovery rates
- projected future amounts of garbage and recycling

Data provided in this appendix is used throughout this Plan, but primarily to assess the potential impact of new or expanded programs.

PAST DISPOSAL QUANTITIES

Historical Disposal Amounts

The amounts of wastes disposed in the past 22 years in Snohomish County are shown in Table 1. The waste tonnage figures shown are only for municipal solid waste (MSW) brought to County facilities and does not include wastes brought to other facilities or recycling tonnages.

Population and Waste Disposal Rates

Current and future population levels are an important factor to consider for solid waste management plans. People create solid waste and in general, the more people there are (now and in the future), the more waste is created. The amount of waste disposed is also influenced by employment levels, other economic factors and recycling rates. Hence, Snohomish County population data is also shown in Table 1, and this data is used to calculate a waste disposal rate. This rate should not be confused with a waste generation rate (which is addressed later in this appendix). The waste generation rate is actually a better measure of the amount of waste produced, since it takes into account all of the wastes produced (regardless of whether the waste materials are

Table 1. Historical Waste Disposal Amounts			
Year	Waste Disposed, TPY	Population	Waste Disposal Rate, tpy/person
1998	397,461	576,165	0.69
1999	419,741	591,590	0.71
2000	434,754	606,024	0.72
2001	438,529	617,860	0.71
2002	440,007	629,290	0.70
2003	422,852	639,940	0.66
2004	443,964	648,780	0.68
2005	462,955	661,350	0.70
2006	507,122	676,130	0.75
2007	518,820	689,310	0.75
2008	456,744	699,330	0.65
2009	419,129	705,890	0.59
2010	403,585	713,340	0.57
2011	395,379	717,000	0.55
2012	394,631	722,900	0.55
2013	411,770	730,500	0.56
2014	430,128	741,000	0.58
2015	452,771	757,600	0.60
2016	484,912	772,860	0.63
2017	509,209	789,400	0.65
2018	526,344	805,120	0.65
2019	528,761	818,700	0.65
2020	560,525	841,998	0.67

Sources: Waste tonnage data is from Snohomish County records, and includes only the outbound wastes handled and processed by county facilities. Population data is from the Office of Financial Management (OFM 2019).
Waste disposal rates are expressed in terms of tons per year (tpy) per person.

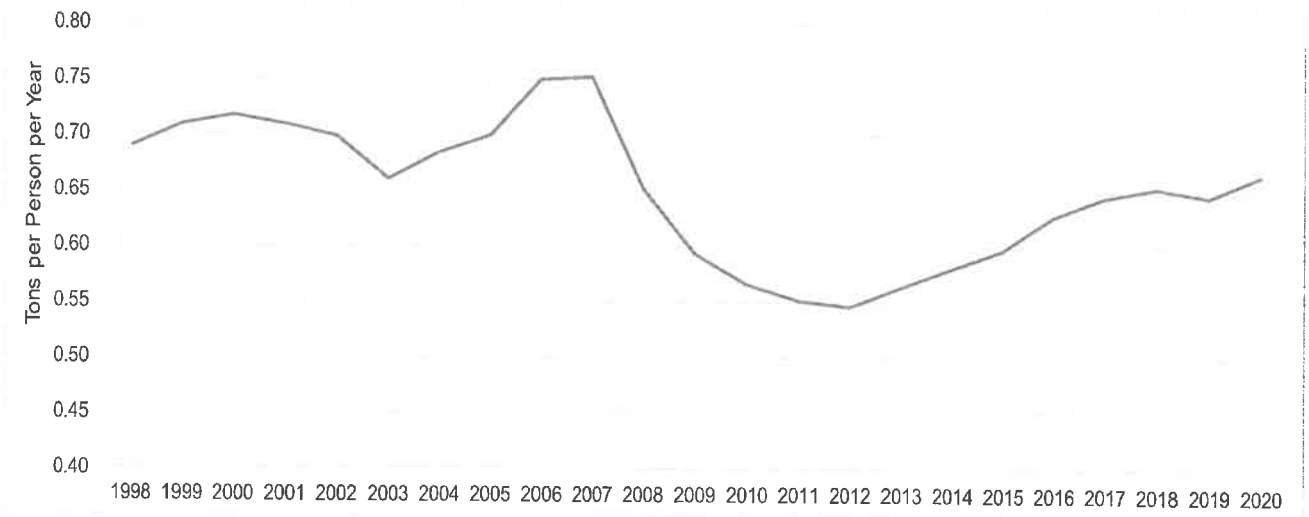
recycled or disposed). Figure 1 shows how the per capita disposal rate (in terms of tons of waste per person per year) has changed in the past 23 years through the county system.

CURRENT RECYCLING AND DISPOSAL DATA

Current Recovery Rate

The Washington Department of Ecology (Ecology) gathers data annually on the amounts of materials recycled and disposed in Washington State. This analysis begins with annual reports on recycled and disposed quantities submitted by a wide variety of private companies, government agencies, non-profit organizations and others. The annual reports are mandatory for companies and agencies engaged in activities

Figure 1
Historical Per Capita Disposal Rates



Source: Based on the waste disposal rates shown in Table 1.

that require a solid waste permit, but there are many waste diversion activities that do not require permits and so reporting in many cases is voluntary. Hence, the level of cooperation and accuracy of reporting can vary significantly from year to year.

Much of the focus on data collection by Ecology in the past targeted the calculation of a "recycling rate," or in other words the percentage of municipal solid wastes (MSW) that were diverted to recycling and composting programs and facilities. In this plan, MSW is the term generally used for solid wastes handled by the County's system of transfer stations and disposal. Non-MSW wastes include other wastes handled outside of that system, such as contaminated soils sent directly to a landfill. Beginning with the 2017 data, Ecology shifted their focus to the determination of a "recovery rate" and increased the types of materials counted towards the recycling rate or recovery rate. The recovery rate is a broader term that includes both materials diverted to other uses that are not defined as recycling, such as wood burned for energy, and non-MSW wastes.

Data for the past three years from Ecology's annual recycling survey is shown in Table 2. Data for the year 2017 is the most recent data available at this time. A three-year average is shown to avoid some of the fluctuations that may be caused by non-reporting issues, and to show the trends that might exist for some of the materials. The data shown in Table 2 reflects the increased types of materials counted towards the recycling rate for 2017, and data for 2015 and 2016 has been reconfigured to be consistent with Ecology's new approach. This new approach is the primary reason for the increase in Snohomish County's recycling rate, which has gone from 48.8% in 2009 to 63.9% in 2017. Most of this increase is due to construction and demolition (C&D) materials, which previously were not counted in the recycling rate. As shown in Table 2, the

Table 2. Recycled and Composted Quantities by Material				
Material	Annual Tons			Three-Year Average
	2015	2016	2017	
Construction and Demo. (C&D) Mtl.				
Asphalt and Concrete	296,634	268,270	323,197	296,034
Gypsum	434	2,259	9,287	3,993
Land Clearing Debris	59,619	42,567	28,277	43,488
Roofing Materials	3,418	320	0	1,246
Wood	42,977	28,037	27,100	32,705
Other C&D	62,143	70,105	106,023	79,424
Glass				
Glass (Containers)	13,194	14,357	14,020	13,857
Metals				
Aluminum Cans	885	756	757	799
Appliances/White Goods	140	4,122	3,649	2,637
Other Ferrous	123,477	103,946	141,232	122,885
Other Non-Ferrous	19,561	11,254	20,444	17,086
Steel (Tin) Cans	1,067	1,181	968	1,072
Moderate Risk Wastes				
Antifreeze	334	265	204	268
Batteries, Auto Lead Acid	778	912	864	852
Batteries (all other)	96	108	30	78
Electronics	3,971	5,468	4,762	4,734
Light Bulbs	105	201	99	135
Oil Filters	108	202	179	163
Used Oil	5,820	6,305	6,258	6,128
Organics				
Agricultural Organics	1,000	2,000	2,000	1,667
Meats, Fats, and Oils	16,990	2,390	1,945	7,108
Food and Yard Debris, Mixed	73,791	65,457	74,413	71,220
Yard Debris	33,540	49,212	53,141	45,298
Other Food Waste	55,381	12,310	16,842	28,178
Other Organics	10,890	18,731	12,641	14,087
Paper				
Cardboard	40,162	49,512	33,151	40,942
High Grade	3,260	3,632	5,657	4,183
Mixed Paper	16,178	26,487	25,226	22,630
Newspaper	23,137	18,856	15,927	19,307
Plastic				
HDPE	993	1,255	966	1,071
LDPE	408	1,479	409	765
PET	1,196	1,459	1,195	1,283
Other Plastics	416	750	844	670
Other				
Textiles	2,978	3,348	3,441	3,256
Tires	3,721	2,765	3,691	3,392
Miscellaneous	91	44	45	60
Total Recycled Materials	918,894	820,322	938,883	892,700

Note: All data is from the annual recycling survey conducted by Ecology (Ecology 2020).

amount of C&D materials measured by Ecology in 2017 was 493,884 tons, which is over half (52.6%) of the total amount of materials classified as recyclable by Ecology for that year.

Additional materials tracked by Ecology's annual survey are shown in Table 3. This table shows materials that are not counted as recycling because the materials are used for energy production. This includes materials processed by anaerobic digestion, which Ecology began tracking in 2017.

Table 3 also shows the materials monitored for reuse. The figures for reuse should be viewed with caution as there are many more tons of a wide variety of materials that are being managed through reuse than are tracked by the Ecology survey. The reuse figures shown in Table 3 represent only a small fraction of the types and amounts of materials being handled through food banks, charities, building material operations, garage sales and online services such as Craigslist, eBay, and many others. In addition, Ecology only recently began tracking these materials.

Table 3. Recovered and Reused Material

Material	Annual Tons			Three-Year Average
	2015	2016	2017	
Recovered Materials				
Food Waste Anaerobically Digested	0	0	1,313	438
Other Organics Anaerobically Digested	0	0	4,229	1,410
Used Oil Burned for Energy	566	1,413	0	660
Tires Burned for Energy	57	480	160	232
Wood Waste Burned for Energy	9,484	3,917	12,258	8,553
Total Additional Recovery	**10,106**	**5,811**	**17,959**	**11,292**
Reused Materials				
Clothing and Household Items	819	3,705	2,856	2,460
Construction and Demolition Mtl.	112	118	26	85
Food	0	358	0	119
Tires	619	457	255	444
Wood	79	17	0	32
Total Reuse	**1,628**	**4,832**	**3,137**	**3,199**

Note: All data is from the annual recycling survey conducted by Ecology (Ecology 2020).

Composition of Waste Disposed

Composition data is useful for designing solid waste handling and disposal programs. A waste composition study was conducted for Snohomish County in 2008 and 2009 (Snohomish County 2009). This study divided the waste stream into five categories based on source of waste (see below) and into 81 categories of materials. A summary of the results of this study is shown in Table 4.

Table 4. Solid Waste Composition in Snohomish County						
Type of Material	Annual Average by Waste Generator, % by Weight					Total Waste Stream
	Single-Family	Multi-Family	Res. Self-Haul	Non-Res. Self-Haul	General Non-Res.	
Recyclable Paper	10.4	18.9	9.7	3.1	11.7	11.3
Compostable Paper	5.7	4.2	1.1	0.1	7.7	4.9
Other Paper	2.2	1.2	1.5	1.3	3.2	2.2
Plastic Bottles	1.7	2.5	1.0	0.2	1.4	1.4
Plastic Bags, Film	6.0	4.7	1.9	1.3	7.0	5.0
Other Plastics	5.1	4.4	6.3	3.7	10.5	7.0
Metals	7.0	5.2	11.8	4.9	6.0	7.2
Recyclable Glass	2.1	4.9	2.9	0.2	1.9	2.4
Other Glass	0.4	1.1	2.5	3.3	0.8	1.2
Food Waste	26.2	17.7	5.5	0.6	13.1	14.6
Yard Debris	2.2	3.6	1.5	2.3	2.3	2.3
Disposable Diapers	5.7	4.5	1.4	0	0.6	2.5
Textiles	3.8	4.2	2.9	0.3	5.0	3.8
Furniture	0.8	1.3	6.6	8.0	0.4	2.4
Wood Waste	1.2	6.8	26.0	29.8	15.3	13.8
Const./Demolition	0.6	1.2	7.8	30.1	3.7	5.4
Animal Excrement	7.2	2.8	2.3	0	0.3	2.7
Other Special Wastes	0.9	2.2	1.9	0.2	1.0	1.2
Other Materials	10.9	8.6	5.5	10.7	8.1	8.6
Totals	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Recyclable Materials Subtotal	**33.1**	**44.0**	**31.6**	**12.2**	**35.3**	**33.4**

Source: From Table E–2 of the "*Snohomish County Waste Composition Study*" (Snohomish County 2009).
Notes: All figures are percentages by weight.
The recyclable materials subtotal includes recyclable paper, plastic bottles, plastic film and bags, metals, glass bottles, yard debris and textiles.

This study was conducted at the County's three main transfer stations (ARTS, SWRTS and NCRTS). Construction and demolition (C&D) wastes and other special wastes are included in the results only to the extent that these materials were disposed at the County facilities (in other words, the study does not include wastes disposed at C&D or inert landfills). Recycled and diverted materials are not included in these figures since the study only sampled wastes brought to the three main transfer stations for disposal purposes.

The specific types of generators examined by the waste composition study included:

- **Single-Family**: waste collected by garbage haulers from single-family homes.
- **Multi-Family**: waste collected by garbage haulers from apartment buildings.
- **Residential Self-Haul**: waste brought in by the homeowners and renters who generated it, typically using a car or pickup truck.

- **Non-Residential Self-Haul**: waste from businesses and institutions (government offices, churches, schools, etc.) which was brought to the disposal facility by an employee of that business or institution. A substantial amount of this waste stream consisted of loads of construction and demolition wastes.
- **General Non-Residential**: waste from all types of non-residential sources (commercial, industrial, or institutional) which was delivered by someone other than an employee (such as a garbage hauling company or municipality).

The composition of the waste stream can be expected to change in the future due to changes in consumption patterns, packaging methods, disposal habits, and other factors. These changes are very difficult to predict in the long term.

Waste Generation Rates

The information shown in Tables 2 and 3 can be combined with waste disposal data to calculate a recycling rate and a recovery rate for Snohomish County. The recovery rate, as indicated previously in this document, is a broader term that includes materials that are burned for energy and also includes non-MSW wastes in the calculation. The figures used for the calculation of the recycling and recovery rates are shown in Table 5.

Table 5. Waste Generation Rates

Material	Annual Tons			Three-Year Average
	2015	2016	2017	
Recycled/Diverted Amounts;				
Recycled	918,894	820,322	938,883	892,700
Other Recovery and Reuse	11,734	10,643	21,096	14,491
Total Recovery	930,628	830,965	959,979	907,191
Solid Waste Amounts;				
MSW, at County Facilities	452,771	484,912	509,209	482,297
MSW sent to Other Facilities	31,454	24,683	22,322	26,153
MSW Subtotal	484,225	509,595	531,531	508,450
Other Solid Wastes	807,981	407,691	291,221	502,298
All Solid Wastes	1,292,207	917,286	822,752	1,010,748
Recycling and Recovery Rate;				
Recycling Rate (Recycled and MSW only)	65.6%	61.7%	63.9%	63.7%
Recovery Rate (Total Recovery and All Solid Wastes)	42.0%	47.6%	53.8%	47.8%
Population	757,600	772,860	789,400	
Waste Generation Rate, tons per year per person				
MSW (MSW and Recycled Amounts)	1.86	1.72	1.86	1.81
All Wastes (All Wastes and Total Recovery)	2.94	2.26	2.26	2.49

Notes: Figures for MSW handled at County facilities are from Snohomish County records (see Table 1), all other tonnage figures are from Ecology's records.

The bottom row of Table 5 shows the waste generation rates based on MSW only and also for all types of wastes recovered and disposed.

In Snohomish County's case, the recovery rate is substantially lower than the recycling rate because there are significant amounts of non-MSW wastes generated in the county, but relatively low amounts of recovered and reused materials being reported. As can be seen in Table 5, the amounts of non-MSW wastes being disposed varied from 807,981 tons in 2015 to 291,221 tons in 2017. The majority of the non-MSW wastes were soils (contaminated and uncontaminated), and in 2015 there were also 441,511 tons of various types of construction and demolition debris reported as being disposed.

PROJECTED FUTURE WASTE QUANTITIES

Projecting future amounts of solid waste is a necessary part of planning for proper solid waste management. Projections for the future amounts of solid waste are an important starting point for ensuring that there will be adequate collection, transfer and disposal capacity for that waste, and also provides the basis for designing recycling and other waste diversion programs.

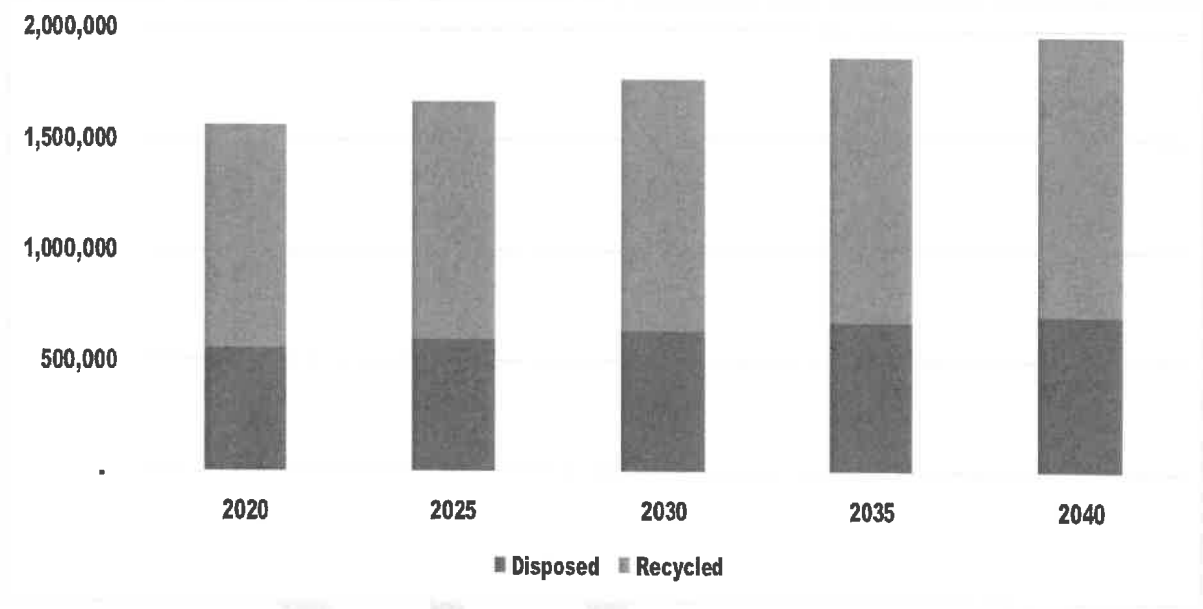
An uncertainty regarding future waste projections is the question about the "other solid wastes" that are not currently handled as part of the County system. Data from Ecology (see Table 5) shows highly variable amounts of this waste in the most recent three years for which data is currently available (2015-2017), with the three-year average (502,298 tons) almost equaling the amount of waste handled through the County system (508,450 tons). Much of the recent wastes that have fallen into the category of "other solid wastes" are contaminated and uncontaminated soils or other materials over which the County has little control and little opportunity for recycling or other waste diversion options. Furthermore, these wastes are not being handled as part of the County system, and so have no bearing on system capacity issues. Hence, the following analysis examines only the MSW types of wastes (MSW and those materials that count towards the recycling rate).

Table 6. Projected Solid Waste and Recycling Quantities for Snohomish County

	2020	2025	2030	2035	2040
Population	841,998	899,527	955,910	1,009,774	1,058,113
At 2017 Rates					
Recycled Amount, at 64%	1,002,314	1,070,797	1,137,915	1,202,035	1,259,578
MSW, disposed amount	563,802	602,323	640,077	676,145	708,512
Waste Generated, at 1.86 tpy/person	1,566,116	1,673,120	1,777,993	1,878,180	1,968,090

Table 6 shows projected waste quantities using the same waste generation rate as in 2017 (1.86 tons per person per year) and the same recycling rate (64%). In other words, the increasing amounts of waste and recycling shown in Table 6 are based solely on increasing population. Figure 2 also shows this information graphically.

Figure 2
Projected Recycling and Waste Quantities



Source: Based on figures shown in Table 6.

REFERENCES

Ecology 2020. Data from the Annual Recycling Survey, Washington Department of Ecology, email from Dan Weston to Rick Hlavka, January 22, 2020.

OFM 2019. *Projections of the Total Resident Population for Growth Management, 2017 GMA Projections*, Medium Series, Office of Financial Management, January 2019.

Snohomish County 2009. *Snohomish County Waste Composition Study.* Prepared by Green Solutions, April 2009.

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DRAFT

COST ASSESSMENT QUESTIONNAIRE
SNOHOMISH COUNTY COMPREHENSIVE SOLID AND HAZARDOUS WASTE MANAGEMENT PLAN

General Information

Plan prepared for the County of	Snohomish
Prepared by	Green Solutions
Contact telephone	360-897-9533
Contact email	rick@green-solutions.biz
Date	May 1, 2021

Years

Throughout this document:

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

Each year shall refer to:

✓ Calendar year January 1 – December 31

1. Demographics

1.1. Population

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

2021	2022	2023	2024	2025	2026
853,504	865,010	876,515	888,021	899,527	911,033

1.2. References and Assumptions

For Section 1.1.1, population projections are based on OFM data, medium-growth series, 2017 GMA projections.

2. Waste Stream Generation

Provide the information below related to solid waste and recycling.

2.1. Tonnage of Solid Waste Disposed

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

2021	2022	2023	2024	2025	2026
571,506	579,210	586,915	594,619	602,323	610,028

2.2. Tonnage of Recyclable Materials with a Market

2.2.1. Provide the tonnage of recyclable materials recycled in the base year and each of the following five years.

2021	2022	2023	2024	2025	2026
1,016,011	1,029,707	1,043,404	1,057,100	1,070,797	1,089,493

2.3. Tonnage of Recyclable Materials without a Market

2.3.1. Provide the tonnage of recyclable materials disposed of in the base year and each of the following five years.

2021	2022	2023	2024	2025	2026
0	0	0	0	0	0

2.4. References and Assumptions

For Sections 2.1.1 and 2.2.1, waste and recycling projections are based on population and the current (2017) per capita disposal and recycling rates (0.667 and 1.19 tons per person per year, respectively, see Tables 5 and 6 in Appendix D). For Sections 2.2.1 and 2.3.1, it is assumed that markets will improve by 2021 and subsequent years, and collection programs will be adjusted to avoid non-recyclable materials.

3. Collection Programs

3.1. Regulated Solid Waste Collection Programs

Provide information for each UTC-regulated solid waste collection company operating in your jurisdiction for the base year and each of the following five years.

UTC-Regulated Hauler Name Republic Services, Inc.
G-Certificate # G-12

	2021	2022	2023	2024	2025	2026
Residential						
# of customers	30,452	30,854	31,262	31,674	32,092	32,516
Tonnage collected	19,482	19,739	20,000	20,264	20,532	20,803
Commercial						
# of customers	2,208	2,237	2,267	2,297	2,327	2,358
Tonnage collected	34,762	35,221	35,686	36,157	36,634	37,118

UTC-Regulated Hauler Name Rubatino Refuse Removal, Inc.
G-Certificate # G-58

	2021	2022	2023	2024	2025	2026
Residential						
# of customers	20,611	20,883	21,158	21,438	21,721	22,007
Tonnage collected	19,279	19,534	19,791	20,053	20,317	20,586
Commercial						
# of customers	2,465	2,497	2,530	2,564	2,598	2,632
Tonnage collected	53,521	54,228	54,944	55,669	56,404	57,148

UTC-Regulated Hauler Name Sound Disposal, Inc.
G-Certificate # G-82

	2021	2022	2023	2024	2025	2026
Residential						
# of customers	1,689	1,711	1,734	1,756	1,780	1,803
Tonnage collected	3,325	3,369	3,413	3,458	3,504	3,550
Commercial						
# of customers	275	279	282	286	290	294
Tonnage collected	NA*					

NA = Not Available, commercial waste tonnages for Sound Disposal, Inc. are included with residential tonnage figures.

UTC-Regulated Hauler Name	Waste Management Northwest
G-Certificate #	G-237

	2021	2022	2023	2024	2025	2026
Residential						
# of customers	145,328	147,246	149,190	151,159	153,155	155,176
Tonnage collected	80,141	81,198	82,270	83,356	84,456	85,571
Commercial						
# of customers	8,768	8,884	9,001	9,120	9,240	9,362
Tonnage collected	138,815	140,648	142,504	144,385	146,291	148,222

3.2. Cost & Funding for Solid Waste Programs

Provide information for solid waste programs that have been implemented and/or proposed. Include costs and proposed funding mechanism. If these programs are discussed in the SWMP, provide the page number in the draft plan on which it is discussed.

Implemented			
Program	**Cost**	**Funding**	**Page #**
NA			

Proposed			
Program	**Cost**	**Funding**	**Page #**
Upgrade the Dubuque Road Drop Box facility	Unknown	Unknown	Pages 8 and 9 of the Transfer Tech Memo

3.3. References and Assumptions

For Section 3.1, the number of customers and tonnages collected are based on current figures (2019) and then projected based on population growth (1.32% annually).

For Section 3.2, it is understood that the information requested here is intended to be for countywide programs such as special taxes or fees, and not for basic services such as the cost of waste collection services or for existing activities. There are no implemented or proposed programs like that. The only applicable proposed activity that might result in additional costs for the solid waste collection system is the possible expansion of the Dubuque Road Drop Box. The plans for that site have not been finalized yet and so the costs of that upgrade are unknown at this time, but it is likely that all or part of that expense can be taken from reserve funds and thus may not immediately result in increased tipping fees.

4. Waste Reduction (Recycling and Organics)

4.1. Recycling

4.1.1. Regulated Recycling Collection Programs: Provide information for each UTC-regulated recycling company for the base year and each of the following five years.

UTC-Regulated Hauler Name Republic Services, Inc.
G-Certificate # G-12

	2021	2022	2023	2024	2025	2026
Residential						
# of customers	30,452	30,854	31,262	31,674	32,092	32,516
Tonnage collected	8,868	8,985	9,103	9,223	9,345	9,468
Commercial						
# of customers	1,368	1,386	1,405	1,423	1,442	1,461
Tonnage collected	8,279	8,389	8,499	8,612	8,725	8,840

UTC-Regulated Hauler Name Rubatino Refuse Removal, Inc.
G-Certificate # G-58

	2021	2022	2023	2024	2025	2026
Residential						
# of customers	20,611	20,883	21,158	21,438	21,721	22,007
Tonnage collected	5,207	5,276	5,345	5,416	5,487	5,560
Commercial						
# of customers	1,433	1,452	1,471	1,491	1,510	1,530
Tonnage collected	1,423	1,442	1,461	1,480	1,499	1,519

UTC-Regulated Hauler Name Sound Disposal, Inc.
G-Certificate # G-82

	2021	2022	2023	2024	2025	2026
Residential						
# of customers	1,689	1,711	1,734	1,756	1,780	1,803
Tonnage collected	1,014	1,028	1,041	1,055	1,069	1,083
Commercial						
# of customers	260	263	267	270	274	277
Tonnage collected	88	89	91	92	93	94

UTC-Regulated Hauler Name	Waste Management Northwest
G-Certificate #	G-237

	2021	2022	2023	2024	2025	2026
Residential						
# of customers	145,328	147,246	149,190	151,159	153,155	155,176
Tonnage collected	34,188	34,639	35,097	35,560	36,029	36,505
Commercial						
# of customers	4,944	5,009	5,075	5,142	5,210	5,279
Tonnage collected	19,498	19,755	20,016	20,280	20,548	20,819

4.1.2. Recyclable Materials: Provide a list of recyclable materials to be collected in accordance with the SWMP. For each item, indicate if there is an active market and if the revenues exceed the cost of processing.

Recyclable Material	**Active Market**	**Revenues > Processing Costs**
Cardboard	X Yes . No	X Yes ☐ No
Newspaper	X Yes ☐ No	☐ Yes X No
Other Paper	X Yes ☐ No	☐ Yes X No
Aluminum Cans	X Yes ☐ No	X Yes ☐ No
Tin Cans	X Yes ☐ No	X Yes ☐ No
Glass	X Yes ☐ No	☐ Yes X No
Plastic Bottles	X Yes ☐ No	X Yes ☐ No
Yard Debris	X Yes ☐ No	X Yes ☐ No
Food Wastes	X Yes ☐ No	X Yes ☐ No

4.1.3. Costs & Funding for Recycling

Provide information for recycling programs that have been implemented and/or proposed. Include costs and proposed funding mechanism. If these programs are discussed in the SWMP, provide the page number in the draft plan on which it is discussed.

	Implemented		
Program	**Cost**	**Funding**	**Page #**
Curbside and Drop-Off	Not available	Service charges	Pages 6 to 11 of the Recycling Tech Memo

	Proposed		
Program	**Cost**	**Funding**	**Page #**
Implement expanded education program	Unknown	Unknown	Pages 17 and 19 of the Recycling Tech Memo

4.2. Other Waste Reduction Programs (Organics, such as Yard Waste and Food Waste)

4.2.1. Regulated Organics Collection Programs: Provide information for each UTC-regulated company collecting organics operating in your jurisdiction for the base year and each of the following five years.

UTC-Regulated Hauler Name Republic Services, Inc.
G-Certificate # G-12

	2021	2022	2023	2024	2025	2026
Residential						
# of customers	19,553	19,811	20,073	20,338	20,606	20,878
Tonnage collected	13,558	13,737	13,918	14,102	14,288	14,477
Commercial						
# of customers	187	189	192	194	197	199
Tonnage collected	142	144	145	147	149	151

UTC-Regulated Hauler Name Rubatino Refuse Removal, Inc.
G-Certificate # G-58

	2021	2022	2023	2024	2025	2026
Residential						
# of customers	12,050	12,209	12,370	12,533	12,699	12,866
Tonnage collected	8,019	8,124	8,232	8,340	8,450	8,562
Commercial						
# of customers	31	31	32	32	32	33
Tonnage collected	1,966	1,992	2,018	2,045	2,072	2,099

UTC-Regulated Hauler Name	Sound Disposal, Inc.
G-Certificate #	G-82

	2021	2022	2023	2024	2025	2026
Residential						
# of customers	1,398	1,417	1,435	1,454	1,473	1,493
Tonnage collected	801	811	822	833	844	855
Commercial						
# of customers	33	33	34	34	35	35
Tonnage collected	54	55	56	57	57	58

UTC-Regulated Hauler Name	Waste Management Northwest
G-Certificate #	G-237

	2021	2022	2023	2024	2025	2026
Residential						
# of customers	75,345	76,340	77,348	78,369	79,403	80,451
Tonnage collected	50,131	50,792	51,463	52,142	52,830	53,528
Commercial						
# of customers	2,398	2,430	2,462	2,494	2,527	2,561
Tonnage collected	306	310	314	318	322	327

4.2.2. Costs & Funding for Organics Collection Programs

Provide information for programs for collecting organics that have been implemented and/or proposed. Include costs and proposed funding mechanism. If these programs are discussed in the SWMP, provide the page number in the draft plan on which it is discussed.

Implemented			
Program	**Cost**	**Funding**	**Page #**
Curbside and Drop-Off	Not available	Service charges	Pages 4 to 11 of the Organics Tech Memo

Proposed			
Program	**Cost**	**Funding**	**Page #**
NA			

4.3. References and Assumptions

For Sections 4.1.1 and 4.2.1, the number of customers and tonnages collected are based on current figures (2019) and then projected based on population growth.

For Section 4.1.2, the materials listed are the designated recyclable materials for residential curbside programs in Snohomish County (see Table 5 in the Recycling Tech Memo). The processing costs for these materials (except yard debris and food waste) is assumed to average $60 to $70/ton, and the revenues for each type of material are based on typical values published by RecyclingMarkets.net in early 2020.

For Sections 4.1.3 and 4.2.2, it is understood that the information requested here is intended to be for countywide programs and not for basic services such as the cost of collection services.

5. Disposal

5.1. Energy Recovery & Incineration (ER&I) Disposal Programs

Not applicable, the only significant ER&I facility in Snohomish County is a privately-operated co-generation plant (Hampton Lumber Mill). No new ER&I facilities are proposed.

5.2. Land Disposal Program

The only landfills operating in Snohomish County are a few small private inert waste landfills. See pages 2 to 3 of the Disposal Tech Memo for more details.

6. Administration Program

6.1. Costs & Funding for Administration Programs

Provide information for administration programs that have been implemented and/or proposed. Include costs and proposed funding mechanism. If these programs are discussed in the SWMP, provide the page number in the draft plan on which it is discussed.

Implemented			
Program	**Cost**	**Funding**	**Page #**
County administration and planning	$5,916,445	Ecology grants, tipping fees	Page 4 of the Admn. and Reg. Tech Memo

Proposed			
Program	**Cost**	**Funding**	**Page #**
NA			

6.2. References and Assumptions

The figure shown for the implemented cost in Section 6.1 is the sum of administration and planning costs for 2020, see the Administration and Regulation Tech Memo for more information.

7. Other Programs

7.1. Programs

For each program in effect or planned that does not readily fall into one of the previously described categories please fill in the following table.

Program	MRW Facility		
Page #	Appendix B		
Owner/Operator	Snohomish County		
UTC Regulations	☐ Yes ✓ No	☐ Yes ☐ No	☐ Yes ☐ No
Anticipated Costs	$1,300,000/year		

7.1.1. UTC Regulation Involvement

If UTC regulation is involved, please explain the extent of involvement.

NA

7.2. Costs & Assumptions of Other Programs

Provide information for other programs that have been implemented and/or proposed. Include costs and proposed funding mechanism. If these programs are discussed in the SWMP, provide the page number in the draft plan on which it is discussed.

Implemented			
Program	**Cost**	**Funding**	**Page #**
NA			

Proposed			
Program	**Cost**	**Funding**	**Page #**
NA			

7.3. References and Assumptions

NA

8. Funding Mechanisms

This section relates specifically to the funding mechanisms currently in use and the ones that will be implemented to incorporate the recommended programs in the draft plan. Because the way a program is funded directly relates to the costs a resident or commercial customer will have to pay, this section is crucial to the cost assessment process.

8.1. Facility Inventory

Facility Name	Type of Facility	Tip Fee per Ton (2021)	Transfer Cost	Location	Final Disposal Location	Total Tons Disposed (2020)[3]	Total Revenue Generated (2020)[3]
Airport Road Transfer Station	Transfer station	$105/ton plus tax	See Note 1	Everett	Roosevelt Regional Landfill	266,020	$26,873,132
Cathcart Way Transfer Station	Transfer station	$105/ton plus tax		Snohomish	Roosevelt Regional Landfill	3,261	$42,587
Dubuque Road Drop Box	Drop Box	$20/cubic yard		Snohomish	Roosevelt Regional Landfill	7,090	$805,089
Granite Falls Drop Box	Drop Box	$20/cubic yard		Granite Falls	Roosevelt Regional Landfill	2,105	$237,568
Intermodal Facility	Intermodal	NA		Everett	Roosevelt Regional Landfill	79,858	$5,190,768
North County Transfer Station	Transfer station	$105/ton plus tax		Arlington	Roosevelt Regional Landfill	121,772	$13,027,257
Southwest Transfer Station	Transfer station	$105/ton plus tax		Mountlake Terrace	Roosevelt Regional Landfill	157,519	$16,478,499
Sultan Drop Box	Drop Box	$20/cubic yard		Sultan	Roosevelt Regional Landfill	5,944	$650,915
MRW Facility	MRW facility	$0	$1,268,518[2]	Everett	Varies	1,215	$214,723

Notes:
1. The total operating costs for all transfer stations and drop boxes was $20,693,353 in 2020. Table 1 in the Administration and Regulation Tech Memo provides more details about the Snohomish County budget.
2. The figure shown for Transfer Cost for the MRW Facility is the total operating costs for 2020.
3. The total tons and revenues shown for the transfer stations and drop boxes include MSW, yard debris and clean wood.

8.2. Tip Fee Component

Tip Fee by Facility	Base Rate	Surcharge	Refuse Tax	B&O Tax	City Tax
All Transfer Stations	$105.00/ton	$0	$4.00/ton	$0	$0
All Drop Boxes	$19.30/cubic yard	$0	$0.70/cubic yard	$0	$0

8.3. Tip Fee Forecast

Tip Fee per Ton by Facility	2022	2023	2024	2025	2026	2027
All Transfer Stations	$109/ton	$109/ton	$109/ton	$109/ton	$109/ton	$109/ton
All Drop Boxes	$20/cubic yard	$20/cubic yard	$20/cubic yard	$20/cubic yard	$20/cubic yard	$20/cubic yard

Notes: Tipping fees have remained the same since 2006, but may change in the future due to inflation, large capital expenses or for other reasons.

Snohomish County
Public Works
Transportation and Environmental Services

3000 Rockefeller Ave., M/S 607
Everett, WA 98201-4046
(425) 388-3488
www.snoco.org

Dave Somers
County Executive

STATE ENVIRONMENTAL POLICY ACT

DETERMINATION OF NONSIGNIFICANCE (DNS)

Lead Agency: Snohomish County Public Works

Agency Contact:

Michael Smith, Project Specialist IV, Solid Waste Division
3000 Rockefeller Ave M/S 607, Everett, WA 98201-4046
Email: michael.smith@snoco.org
Telephone: (425) 388-7519

Agency File Number: RR8023

Project Name: Comprehensive Solid and Hazardous Waste Management Plan – 2021

Description of Proposal:

Snohomish County Public Works - Solid Waste Division currently operates three transfer stations and three drop box sites. A fourth transfer station (Cathcart) is utilized when one of the other stations is temporarily closed for maintenance or repair. The transfer stations are in the more urbanized areas of the County and provide service to the greatest number of residents, while the drop boxes are distributed throughout the more rural areas of the County. The waste collected at the transfer stations and drop box sites is compacted and trucked to an intermodal facility in Everett, from which it is shipped by rail to the Roosevelt Regional Landfill in Klickitat County. The Division also operates the Moderate Risk Waste (MRW) collection facility which offers free disposal of household hazardous wastes from Snohomish County residents. For a fee, it also accepts hazardous waste from commercial businesses that generate small quantities of hazardous waste.

To ensure that solid waste is collected, handled, recycled, and disposed of in an environmentally sound manner that protects public health, Washington State regulations require the county to have an approved comprehensive solid waste management plan. The proposed *Comprehensive Solid and Hazardous Waste Management Plan – 2021* updates the Snohomish County Comprehensive Solid and Hazardous Waste Management Plan. The Plan describes the management of all aspects of solid waste generated by residents and businesses in the county and will be adopted as both a Six-Year and Twenty-Year plan with goals and recommendations for solid waste management within Snohomish County.

The vision for this update of the Plan is to shift to a more sustainable future, where people are generating less waste and are handling the wastes that they do generate in an environmentally and sustainably sound manner emphasizing the concepts of reduce and reuse as opposed to focusing on recycling. This vision is the underlying concept for the two major goals of the Plan: 1) Support actions to reduce climate change and promote sustainability, and 2) Ensure efficient services for a growing and changing customer base. The goals are in turn reflected in the policies that are used in the Plan to consider additional programs and recommendations for enhancements to the solid waste system.

The Plan consists of background information and a summary of the recommendations, and a series of technical memorandums and appendices that address specific topics in detail, such as:

- Climate Change
- Energy from Waste
- Waste Prevention
- Recycling
- Organics
- Waste Collection
- Waste Transfer
- Waste Disposal
- Outreach and Education
- Administration and Regulation
- Moderate Risk Waste (MRW)

Chapter 70A.205 RCW requires the Plan to project the anticipated cost of solid waste construction and capital acquisition programs for a six-year period. The Division's capital programs are focused primarily on facility repair and maintenance projects and the purchase of a few additional pieces of equipment. Significant anticipated capital acquisitions and improvements for the next 6 years include:

- Sisco Landfill Closure
- Scale Automation Software Upgrade
- Drop Box Improvements
- North County Recycling and Transfer Station (NCRTS) Compactor Replacement
- Supervisory Control and Data Acquisition (SCADA) Modernization
- Airport Road Recycling and Transfer Station (ARTS) Scale Replacement
- Southwest Recycling and Transfer Station (SWRTS) Pavement Resurfacing

Solid waste management in Snohomish County will continue to evolve based on changes in population, demographics, the local, state, and national economy, regulations, and advancements in waste handling and recycling systems. Because this Plan is being developed during a pandemic and is still under the influence of international market and recycling uncertainties, it is particularly difficult to project waste generation and the resultant need for additional facilities and programs. It must be recognized that some amount of flexibility will be needed to see Snohomish County and their partners through the next few years and into the next twenty years.

Location of Proposal: The updated 2021 Comprehensive Solid and Hazardous Waste Management Plan will guide operations at all Snohomish County Solid Waste facilities and facilities and coordinate solid waste management throughout Snohomish County.

Threshold Determination: Snohomish County Public Works has determined that this proposal will not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed Environmental Checklist and Design Report. This information is available at:

https://snohomishcountywa.gov/5958/Comprehensive-Solid-Waste-and Hazardous-

Snohomish County Public Works has determined the requirements for environmental analysis, protection, and mitigation measures have been adequately addressed in the County's development regulations and comprehensive plan adopted under Chapter 36.70A RCW, and in other applicable local, state, or federal laws and rules, as provided by RCW 43.21C.240 and WAC 197-11-158. Our agency will not require any additional mitigation measures under Chapter 30.61 SCC.

This DNS is issued under WAC 197-11-340(2) on February 3, 2022. It will be published on February 9, 2022,

and the comment period will end at 5:00 PM PST on February 23, 2022. Send any comments to the Agency Contact.

RESPONSIBLE OFFICIAL:

Snyder, Kelly Digitally signed by Snyder, Kelly Date: 2022.02.03 10:46:54 -08'00'

2/3/22

Kelly A. Snyder, MPA, Public Works Director — Date
3000 Rockefeller Ave, M/S 607, Everett, WA 98201-4046
Telephone: (425) 388-6652, Email: kelly.snyder@snoco.org

Appeal Process: This DNS may be appealed pursuant to the requirements of SCC 30.61.300 and Chapter 2.02 SCC. There is a 14-day appeal period for this DNS that commences from the date of publication of notice. Any appeal must be addressed to the County Hearing Examiner, accompanied by a filing fee of $500.00, and be filed in writing. The appeal must be received by 5:00 PM PST on February 23, 2022.

The appeal must contain the items set forth in SCC 30.71.050(5). In addition, SCC 30.61.305(1) also requires that any person filing an appeal of a threshold determination made pursuant to Chapter 30.61 SCC shall file with the County Hearing Examiner, within seven (7) days of filing the appeal, a sworn affidavit or declaration demonstrating facts and evidence, that, if proven, would demonstrate that the issuance of the threshold determination was clearly erroneous.

Currently, in person filings are suspended due to COVID-19 safety protocols
Online filing instructions:
Appeals may be accepted electronically and paid for by credit card over the phone as follows:

- Scan the original signed copy of the appeal document.
- Send your appeal as an email attachment to epermittech@snoco.org. Please include a phone number where you can be reliably reached.
- Staff will call you to collect your credit card information and process your payment.
- Mail the original copy to: Snohomish County PDS, 3000 Rockefeller Ave M/S 604, Everett, WA 98201

Title VI and Americans with Disabilities Act (ADA) Information: It is Snohomish County's policy to assure that no person shall on the grounds of race, color, national origin, or sex, as provided by Title VI of the Civil Rights Act of 1964, as amended, be excluded from participation in, be denied the benefits of, or otherwise be discriminated against under any county-sponsored program or activity. For questions regarding Snohomish County Public Works' Title VI Program, or for interpreter or translation services for non-English speakers, or otherwise making materials available in an alternate format, contact the Department Title VI Coordinator via email at spw-titlevi@snoco.org or phone 425-388-6660. Hearing/speech impaired may call 711.

Información sobre el Titulo VI y sobre la Ley de Americanos con Discapacidades (ADA por sus siglas en inglés): *Es la política del Condado de Snohomish asegurar que ninguna persona sea excluida de participar, se le nieguen beneficios o se le discrimine de alguna otra manera en cualquier programa o actividad patrocinada por el Condado de Snohomish en razón de raza, color, país de origen o género, conforme al Título VI de la Enmienda a la Ley de Derechos Civiles de 1964. Comuníquese con el Department Title VI Coordinator (Coordinador del Título VI del Departamento) al correo electrónico spw-titlevi@snoco.org, o al teléfono 425-388-6660 si tiene preguntas referentes al Snohomish County Public Works' Title VI Program (Programa del Título VI de Obras Publicas del Condado de Snohomish), o para servicios de interpretación o traducción para los no angloparlantes, o para pedir que los materiales se hagan disponibles en un formato alternativo. Los que tienen necesidades comunicativas especiales pueden llamar al 711.*

DISTRIBUTION LIST:

Federal Agencies:

National Marine Fisheries Service- SEPA Review
Natural Resources Conservation Service
NOAA, National Marine Fisheries Service – North Puget Sound Branch

State Agencies:

Department of Ecology- SEPA Register, Solid Waste Management Program
Department of Archaeology & Historic Preservation

Tribal Governments:

Muckleshoot Tribe
Samish Indian Nation
Sauk-Suiattle Tribe
Skagit River System Cooperative
Snoqualmie Tribe
Stillaguamish Tribe of Indians
Suquamish Tribe
Swinomish Indian Tribal Community
Tulalip Tribes
Upper Skagit Indian Tribe

Cities:

Arlington - Public Works Director, Mayor, Communications Manager
Bothell - City Manager, Public Works Director
Brier - Mayor, Public Works Supervisor
Darrington - Mayor, Darrington Public Works
Edmonds - PW and Utilities Director, Mayor
Everett - Mayor, Chief of Staff, Communications Director, PW City Engineer, PW Information & Education
Gold Bar - Mayor, PW Director, Office Manager
Granite Falls - City Manage, PW Director, City Clerk
Lake Stevens - Mayor, Public Works Director, City Administrator, City Clerk
Lynnwood -Mayor, PW Director, PIO
Marysville - Mayor, Public Works Director, Communications Administrator
Mill Creek - Public Works Director, City Manager, Interim Director of Communications and Marketing
Monroe - Mayor, City Administrator, Public Works Director
Mountlake Terrace - City Manager, PW Director, City Clerk Community Relations
Mukilteo - Mayor, Interim Public Works Director, Executive Assistant
Snohomish - Mayor, Economic Development/Communications Manage, City Engineer
Stanwood - Public Works Director, City Administrator, Mayor
Sultan - City Administrator, Public Works Director, Mayor
Woodway - City Administrator, PW Director, Mayor

Other:

The Herald
Solid Waste Advisory Committee
Libraries: Everett Public Library and Sno-Isle Libraries
Snohomish County: Snohomish County Council, County Executive

Snohomish County



SEPA CHECKLIST

Snohomish County Comprehensive Solid and Hazardous Waste Management Plan

Snohomish County
Public Works
3000 Rockefeller Avenue
Everett, WA 98201

Prepared by:

Smith, Michael Project Specialist IV

Snohomish County Public Works-
Solid Waste Division

Phone: (425) (425) 388-7519
Michael.smith@snoco.org

January 2022

Purpose of Checklist:

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

SUMMARY

A. BACKGROUND

Name of proposed project:
Snohomish County Comprehensive Solid and Hazardous Waste Management Plan

Name of applicant:
Snohomish County Public Works Department
Solid Waste Division

Address and phone number of applicant and contact person:
Michael Smith, Project Specialist IV
Solid Waste Division
3000 Rockefeller Ave, MS 607
Everett, WA 98201
(425) 388-7519
Michael.smith@snoco.org

Date checklist prepared:
January 21, 2022

Agency requesting checklist:
Snohomish County Public Works

Proposed timing or schedule (including phasing, if applicable):
The Snohomish County Comprehensive Solid and Hazardous Waste Management Plan (Plan) provides recommendations and policies through 2041. The Plan and SEPA Environmental Checklist will be submitted to the Department of Ecology (Ecology) for review. If approved by Ecology, the Plan will then be submitted to the Snohomish County Council for review. If approved, the Snohomish County Council will adopt the Plan by motion. This process is expected to be completed spring 2022.

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

This Plan is written to be a dynamic document. Minor modifications, which do not affect the basic goals of the Plan, may be made throughout the lifetime of this document. Decisions to either undertake actions outside the Six-Year Implementation Schedule or that alter the Plan's Vision, major goals, or policies, will be defined as major plan revisions and require a

full approval process. In general, the Plan is reviewed every 6 years and is scheduled for a 2027 update.

List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.
Ten Technical Memorandums on related topics were prepared as part of this Plan. The memos prepared are: Climate Change and Sustainability, Waste Prevention, Recycling, Organics, Waste Collection, Transfer, Disposal, Energy from Waste, Outreach and Education, Administration and Regulation. The Appendices also include: Moderate Risk Waste Plan, Solid Waste Facility Siting, Waste Quantities and Composition, Contamination Reduction and Outreach Plan.

Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, please explain.
No.

List any government approvals or permits that will be needed for your proposal, if known.
State Law (RCW 70A.205.040) and guidelines issued by the Department of Ecology (Guidelines for Development of Local Comprehensive Solid Waste Management Plans and Plan Revisions) require the cities and towns to adopt the plan (or they must develop their own plans), require a public review period for a minimum of 30 days, require that the plan and a Cost Assessment Questionnaire be reviewed and approved by the Washington Utilities and Transportation Commission, and require Ecology and the Department of Agriculture to examine and comment on the preliminary draft plan. The Board of County Commissioners and the cities and towns must also adopt the final draft of the plan. After adoption by the County and cities, Ecology must approve the plan before it becomes effective.

The process for government approval will be:

- **Prepare and release the Preliminary Draft plan**
- **Public and agency comment period**
- **Address comments received and incorporate those into the Final Draft**
- **Adoption of Final Draft by cities and county**
- **Review and approval of the final daft by Ecology**

1. Give a brief, complete description of your proposal, including the proposed uses and the size of the project 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).

   Snohomish County Solid Waste Division currently operates three transfer stations and three drop box sites. A fourth transfer station (Cathcart) is utilized when one of the other stations is temporarily closed for maintenance or repair. The transfer stations are in the more urbanized areas of the County and

provide service to the greatest number of residents, while the drop boxes are distributed throughout the more rural areas of the County. The waste collected at the transfer stations and drop box sites is compacted and trucked to an intermodal facility in Everett, from which it is shipped by rail to the Roosevelt Regional Landfill in Klickitat County. The Division also operates the Moderate Risk Waste (MRW) collection facility which offers free disposal of household hazardous wastes from Snohomish County residents. For a fee, it also accepts hazardous waste from commercial businesses that generate small quantities of hazardous waste.

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- Climate Change
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- Waste Prevention
- Recycling
- Organics
- Waste Collection

- **Waste Transfer**
- **Waste Disposal**
- **Outreach and Education**
- **Administration and Regulation**
- **Moderate Risk Waste (MRW)**

Chapter 70A.205 RCW requires the Plan to project the anticipated cost of solid waste construction and capital acquisition programs for a six-year period. The Division's capital programs are focused primarily on facility repair and maintenance projects and the purchase of a few additional pieces of equipment. Significant anticipated capital acquisitions and improvements for the next 6 years include:

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- **Scale Automation Software Upgrade**
- **Drop Box Improvements**
- **North County Recycling and Transfer Station (NCRTS) Compactor Replacement**
- **Supervisory Control and Data Acquisition (SCADA) Modernization**
- **Airport Road Recycling and Transfer Station (ARTS) Scale Replacement**
- **Southwest Recycling and Transfer Station (SWRTS) Pavement Resurfacing**

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2. Location of 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/range if known. If a proposal would occur over a range of areas, provide the range or boundaries of the site(s). Provide 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.

   This plan applies to all solid waste management properties throughout Snohomish County.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one): **Not Applicable**

- ☐ FLAT
- ☐ ROLLING
- ☐ HILLY
- ☐ STEEP SLOPES
- ☐ MOUNTAINOUS
- ☐ OTHER (please describe): Click here to enter text.

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

Does Not Apply.

c. What general types of soil are found on the site (i.e., 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.

There are many different soil types in Snohomish County.

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

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.

Does Not Apply

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

Does Not Apply

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

Does Not Apply

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

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, please generally describe and give approximate quantities if known.

Does Not Apply

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

Does Not Apply

c. Proposed measures to reduce or control emissions or other impacts to air, if any:
Does Not Apply

3. Water

a. Surface Water:

1. Is there any surface water body on or in the immediate vicinity of the site (including year round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, please describe type and provide names. If appropriate, state what stream or river if flows into.
Does Not Apply.

2. Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.
Does Not Apply

3. Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.
Does Not Apply

4. Will the proposal require surface water withdrawals or diversions? Please give a general description, purpose, and approximate quantities if known.
Does Not Apply

5. Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
No.

6. Does the proposal involve any discharges of waste materials to surface waters? If so, please describe the type of waste and anticipated volume of discharge.
Does Not Apply

b. Groundwater:

1. Will groundwater be withdrawn from a well for drinking water of other purposes? If so, please give a general description of the well, proposed uses and approximate quantities withdrawn from the well.
No.

2. Will water be discharged to groundwater? Please give a general description, purpose, and approximate quantities if known.
Does Not Apply

3. Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (i.e., domestic sewage, industrial, containing the following chemicals..., agricultural, etc.).
Does Not Apply

4. Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.
   Does Not Apply

c. Water Runoff (including storm water):
   1. Describe the source of runoff (including stormwater) 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, please describe.
      Does Not Apply
   2. Could waste materials enter ground or surface waters? If so, please generally describe.
      No.
   3. Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, please describe.
      Click here to enter text.

d. Proposed measures to reduce or control surface water, groundwater, runoff water, and drainage impacts, if any:
   Does Not Apply

4. Plants

a. Check all types of vegetation below found on or in close proximity to the site: **Not Applicable**
   - ☐ deciduous tree: alder, maple, cottonwood, other
   - ☐ evergreen tree: fir, cedar, hemlock, pine, other
   - ☐ shrubs
   - ☐ grass
   - ☐ pasture
   - ☐ crop or grain
   - ☐ orchards, vineyards, or other permanent crops
   - ☐ wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other
   - ☐ water plants: water lily, eelgrass, milfoil, other
   - ☐ other types of vegetation present: Click here to enter text.

b. What kind and amount of vegetation will be removed or altered?
   None.

c. List threatened and endangered plant species known to be on or near the site.
   None.

d. List all noxious weeds and invasive species known to be on or near the site.
   None.

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

None.

5. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. **Does Not Apply**
b. **birds:** hawks, heron, eagle, songbirds, owls, ducks, woodpeckers
c. **mammals:** deer, bear, elk, beaver, opossum, raccoon, coyote, small rodents
d. **fish:** salmon, trout, herring, shellfish, other):
e. **other:** Click here to enter text.
f. List any threatened and endangered wildlife species known to be on or near the site.

Where federal threatened and endangered species are found, any future work associated with the plan's implementation will conform to the requirements of the Endangered Species Act administered by the US Fish and Wildlife Service and the National Marine Fisheries Service. Where state listed species or Priority Habitats and Species (PHS) are found, the Washington Department of Fish and Wildlife Priority Habitats and Species recommendations will be followed, when appropriate.

g. Is the site part of a migration route? If so, please explain.
Snohomish County lies within the Pacific Flyway for migratory birds which stretches between Alaska and South America. All migratory birds are protected by the Migratory Bird Treaty Act administered by the US Fish and Wildlife Service.

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

Does Not Apply.

i. Proposed measures to preserve or enhance wildlife, if any: **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? Please describe whether it will be used for heating, manufacturing, etc.

Does Not Apply.

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

Does Not Apply.

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:

A major goal of this Plan is to support actions which will reduce climate change and promote sustainability.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, please describe.

The Solid Waste Division has operated a Moderate Risk Waste (MRW) collection facility since 1996. This facility offers free disposal of household hazardous waste from Snohomish County residents and commercial businesses that generate small quantities of hazardous waste.

1. Describe any known or possible contamination at the site from present or past uses.
   Does Not Apply.
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.
   None.
3. Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or any time during the operating life of the project.
   Various chemicals and materials (acids, bases, batteries, paints, stains, aerosols) are temporarily stored at the MRW facility until the County's hazardous waste contractor is contacted for pick of the materials
4. Describe special emergency services that might be required.
   The MRW facility has been designed to contain minor spills if they occur. The staff is trained in emergency procedures. If a major spill of fire occurred staff would contact local emergency services.
5. Proposed measures to reduce or control environmental health hazards, if any:
   Improving solid waste collection will help reduce environmental health hazards by removing potential risks from the environment.

b. Noise:
   1. What types of noise exist in the area which may affect your project (i.e., traffic, equipment, operation, aircraft, other)?
      Does Not Apply.
   2. What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (i.e., traffic, construction, operation, other)? Indicate what hours noise would come from the site.
      Does Not Apply.

3. Proposed measures to reduce or control noise impacts, if any:
   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 use on nearby or adjacent properties? If so, please describe.
   Does Not Apply.

b. Has the site been used as working farmlands or working forestlands? If so, please describe. How much agriculture or forestland of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forestland tax status will be converted to non-farm or non-forest use?
   Does Not Apply

   1. Will the proposal affect or be affected by surrounding working farmland or forestland's normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:
      Does Not Apply.

c. Describe any structures on the site.
   Does Not Apply

d. Will any structures be demolished? If so, what?
   Does Not Apply.

e. What is the current zoning classification of the site?
   Does Not Apply.

f. What is the current comprehensive plan designation of the site?
   Does Not Apply.

g. If applicable, what is the current shoreline master program designation of the site?
   Does Not Apply.

h. Has any part of the site been classified critical area by the city or county? If so, please specify.
   Does Not Apply.

i. Approximately how many people would reside or work in the completed project?
   Does Not Apply.

j. Approximately how many people would the completed project displace?
   Does Not Apply

k. Proposed measures to reduce or control impacts to nearby agricultural and forestlands of long-term commercial significance, if any:
   Does Not Apply.

l. Proposed measures to ensure the proposal is compatible with existing projected land uses and plans, if any:

Does Not Apply

m. Proposed measures to avoid or reduce displacement, if any:

Does Not Apply.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

Does Not Apply.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Does Not Apply.

c. Proposed measures to reduce or control housing impacts, if any:

Dos Not Apply.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Does Not Apply.

b. What view in the immediate vicinity would be altered or obstructed?

Does Not Apply.

c. Proposed measures to reduce or control aesthetic impacts, if any:

Does Not Apply.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Does Not Apply.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

Does Not Apply.

c. What existing off-site sources of light or glare may affect your proposal?

Does Not Apply.

d. Proposed measures to reduce or control light and glare impacts, if any?

Does Not Apply.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

Does Not Apply.

b. Would the proposed project displace any existing recreation uses? If so, please describe.

Does Not Apply

c. Proposed measures to reduce or control impacts on recreating, including recreation opportunities to be provided by the project or applicant, if any:

Does Not Apply.

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, site, or local preservation registers located on or near the site? If so, please general describe.

There are several hundred recorded historical sites in Snohomish County. Some of these are listed on, or eligible for, national, state or local preservation registers. The Solid Waste Plan will not directly affect any of these sites.

b. Are there any landmarks, features or other evidence of Tribal 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.

There are many landmarks, features or other evidence of Tribal or historic use and occupation within Snohomish County. The Solid Waste Plan will not directly affect any of these locations.

a. Describe 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.

Any future site work associated with plan implementation would b screened by Snohomish County Public Works to determine site proximity to known archaeological and cultural sites.

b. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required:

Does Not Apply.

14. Transportation

a. Identify public streets and highways serving the site, or affected geographic area, and describe proposed access to the existing street system. Show on site plans, if any.

Does Not Apply.

b. Is the site or affected geographic area currently served by public transit? If so, please generally describe. If not, what is the approximate distance to the nearest transit stop?

Does Not Apply.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project proposal eliminate?

Does Not Apply.

d. Will the proposal require any new – or improvements to existing – roads, streets, pedestrian, bicycle, or state transportation facilities, not including driveways? If so, please generally describe (indicate private or public).

Does Not Apply.

e. Will the project or proposal use (or occur in the immediate of) water, rail, or air transportation? If so, please generally describe.

Solid waste from Snohomish County is transported by rail to the Roosevelt Regional Landfill in Klickitat County, Washington. The current waste export contract extends to 2028.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial or non-passenger vehicles). What data or transportation models were used to make these estimates?

Does Not Apply.

g. Will the proposal interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, please generally describe.

Does Not Apply.

h. Proposed measures to reduce or control transportation impacts, if any:

Does Not Apply.

15. Public Services

a. Would the project result in an increased need for public services (i.e., fire protection, police protection, public transit, health care, schools, other)? If so, please generally describe.

Does Not Apply

b. Proposed measures to reduce or control direct impacts on public services, if any.

Does Not Apply

16. Utilities Not Applicable

a. Check all utilities currently available at the site:

- ☐ Electricity
- ☐ Natural Gas
- ☐ Water
- ☐ Refuse Service
- ☐ Telephone
- ☐ Sanitary Sewer
- ☐ Septic System
- ☐ Other (please describe) Click here to enter text.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site of in the immediate vicinity which might be needed.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: 

Printed name and Digital Signature Michael B. Smith 

Position and Agency/Organization: Project Specialist IV, Snohomish County Solid Waste Division

Date Submitted: January 21, 2022

D. Supplemental sheet for non-project actions

(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment. When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1) How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

This proposal would not increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise.

Proposed measures to avoid or reduce such increases are:

Snohomish County Solid Waste Management will support efforts and actions by County and other agencies to reduce GHG emissions and to lessen and prepare for the impacts of climate change through various initiatives such as waste prevention, recycling, and energy-from-waste.

Snohomish County Solid Waste Management will continue efforts to reduce the generation and toxicity of moderate risk waste, and to ensure that convenient, cost effective and sustainable options for its safe management are available.

2) How would the proposal be likely to affect plants, animals, fish, or marine life?

This proposal would not affect plants, animals, fish, or marine life.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

Does not apply

3) How would the proposal be likely to deplete energy or natural resources?

This proposal would not deplete energy or natural resources.

Proposed measures to protect or conserve energy and natural resources are:

The County will continue to monitor developments and progress in energy-from-waste including new technologies, pilot projects, facility procurements and operating track records, and other projects in the region.

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?

This proposal would not affect environmentally sensitive areas or areas designated for governmental protection.

Proposed measures to protect such resources or to avoid or reduce impacts are:

Does not apply

5) How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

This proposal would not affect land use and shoreline use.

Proposed measures to avoid or reduce shoreline and land use impacts are:

Does not apply

6) How would the proposal be likely to increase demands on transportation or public services and utilities?

This proposal would not increase demand for transportation or public services and utilities.

Proposed measures to reduce or respond to such demand(s) are:

Snohomish County Solid Waste Management Division will provide a variety of equitable and efficient waste transfer services to County residences and businesses. The County will continue to offer and develop programs that encourage recycling, as well as continue to promote and expand the collection and non-landfilling of yard debris, wood waste, and food waste.

7) Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

This proposal would not conflict with local, state, or federal laws or requirements.

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Appendix G

INTERLOCAL AGREEMENTS

Interlocal Agreement between Snohomish County and its Cities and Towns regarding Solid Waste Management

Interlocal Agreement between Snohomish County and Everett regarding Solid Waste Management

Master Annexation Interlocal Agreement between the City of Bothell and Snohomish County concerning Annexation and Urban Development with the Bothell Municipal Urban Growth Area

Agreement between the City of Bothell and Snohomish County concerning Solid Waste Management

Interlocal Agreement between King County and Snohomish County related to Solid Waste Disposal

Amendment No. 1 to the Solid Waste Interlocal Agreement between King County and the City of Bothell

DRAFT

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SNOHOMISH COUNTY COUNCIL
Snohomish County, Washington

ORDINANCE NO. 07-147

RELATING TO MANAGEMENT AND DISPOSAL OF SOLID WASTE, AND APPROVING AN INTERLOCAL AGREEMENT BETWEEN SNOHOMISH COUNTY AND ITS CITIES AND TOWNS REGARDING SOLID WASTE MANAGEMENT PURSUANT TO CHAPTER 7.35 SCC

WHEREAS, in 1990 Snohomish County and the cities and towns located within the County, entered into 20-year interlocal agreements to participate in the County's Comprehensive Solid Waste Management Plan and the County's Solid Waste System, whereby the County would provide disposal sites and the cities and towns would designate those sites for the disposal of solid waste generated within their borders; and

WHEREAS, the Solid Waste System has proven beneficial to residents, businesses, the cities and towns, and the County in providing reliable, economical, and environmentally responsible solid and moderate risk waste recycling and disposal options; and

WHEREAS, the Solid Waste System has been augmented by the construction of a new Airport Road Recycling and Transfer Station and a totally upgraded Southwest Recycling and Transfer Station, and the debts associated with these facilities will not be paid off until 2023; and

WHEREAS, the County Executive has recommended that the County enter into a new 20-year interlocal agreement titled Interlocal Agreement Between Snohomish County and Its Cities and Towns Regarding Solid Waste Management, a copy of which is attached hereto as Exhibit A, to ensure that waste and associated revenues will continue to flow to the Solid Waste System until those debts are paid off;

NOW, THEREFORE, BE IT ORDAINED:

Section 1. The County Council approves and authorizes the Executive to sign the Interlocal Agreement Between Snohomish County and Its Cities and Towns

Regarding Solid Waste Management, substantially in the form attached as Exhibit A, as contemplated by SCC 7.35.030. 7.35.040, and 7.35.050.

PASSED this 16th day of January, 2008.

SNOHOMISH COUNTY COUNCIL
Snohomish County, Washington

Chairperson

ATTEST:
Barbara Sitonski
Clerk of the Council, Asst.

APPROVED

( ) EMERGENCY

( ) VETOED

DATE: 1/25/08

for County Executive

MARK SOINE
Deputy Executive

ATTEST:
Cora E. Palmer

Approved as to form only:

Deputy Prosecuting Attorney

EXHIBIT A

Exhibit A

CONFORMED COPY
200802130271 32 PGS
02/13/2008 11:13am $0.00
SNOHOMISH COUNTY, WASHINGTON

INTERLOCAL AGREEMENT BE[illegible]

SNOHOMISH COUNTY AND ITS CITIES AND TOWNS

REGARDING SOLID WASTE MANAGEMENT

WHEREAS, Snohomish County and each of the Cities and Towns executing this Agreement are authorized and directed by Chapter 70.95 RCW to prepare a Comprehensive Solid Waste Management Plan, and are further authorized by Chapter 39.34 RCW to enter into an Interlocal Agreement for the administration and implementation of said Plan; and

WHEREAS, Snohomish County prepared a Comprehensive Solid Waste Management Plan for the County and Cities and Towns of the county in 1990, and updated that Plan with the active involvement of the Cities and Towns in 2001; and

WHEREAS, the 2001 Plan update calls for significant improvements to and replacements for existing waste facilities, and the County has entered into a waste export contract that expires in 2013, and in light of these factors long term financial planning is desirable; and

WHEREAS, providing the most effective and efficient system for managing solid waste generated in Snohomish county, including its Cities and Towns, requires use of the solid waste disposal system established by the County and the Comprehensive Plan of the County to the fullest extent possible;

NOW, THEREFORE, Snohomish County and each of the Cities and Towns signing this Agreement agree as follows:

1. This Interlocal Agreement entirely replaces the previous Interlocal Agreement- Solid Waste Management that the parties entered into in 1990.

2. Definitions. For the purposes of this Interlocal Agreement, the following definitions apply:

2.1."City"/"Town" means a City or Town in Snohomish County, Washington that is a signatory to this Interlocal Agreement Between Snohomish County And Its Cities And Towns Regarding Solid Waste Management.

2.2."Comprehensive Solid Waste Management Plan" or "Comprehensive Plan" means the Snohomish County Comprehensive Solid Waste Management Plan issued in March 2002 and as amended from time to time.

2.3."County" means Snohomish County, Washington.

2.4."Interlocal Agreement" means this Interlocal Agreement Between Snohomish County and Its Cities and Towns Regarding Solid Waste Management.

2.5."Person" means an individual, firm, association, partnership, political subdivision, government agency, municipality, industry, public or private corporation, or any other entity whatsoever.

2.6. "Solid Waste" means all putrescible and nonputrescible 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, with the exception of wastes listed in WAC 173-304-015 as may be amended from time to time.

2.7."Solid Waste Handling" means the management, storage, collection, transportation, treatment, utilization, processing, and final disposal of Solid Wastes, including the recovery and recycling of materials from solid wastes, the recovery of energy resources from such wastes or the conversion of the energy in such wastes to more useful forms or combinations thereof, and as such term may be modified by amendments to RCW 70.95.030 (23).

2.8. "System" means all facilities for Solid Waste Handling owned or operated, or contracted for, by the County, and all administrative activities related thereto.

3. Responsibilities for Waste Disposal and System. For the duration of this Interlocal Agreement, the County shall have the following responsibilities:

3.1.The County shall continue to provide for the efficient disposal of all Solid Waste generated within unincorporated areas of the County and within each of the Cities and Towns signing this Agreement to the extent, in the manner, and by facilities as described in the Comprehensive Solid Waste Management Plan. The County shall not be responsible for disposal of nor claim that this Agreement extends to Solid Waste

that has been eliminated through waste recycling activities in conformity with the Comprehensive Solid Waste Management Plan.

3.2. The County shall provide for the disposal of household hazardous wastes generated by residential households located in jurisdictions party to this Agreement at the System's existing Moderate Risk Waste Facility, or in another reasonable and similarly convenient manner.

3.3. The County shall continue to operate the System in a financially prudent manner, minimize fee increases, and use System revenues only for System purposes.

3.4. The System shall continue to be comprehensive, and include educational and other programs, as defined by the Comprehensive Plan.

4. Comprehensive Plan. For the duration of this Interlocal Agreement, each City and Town shall participate in the Comprehensive Solid Waste Management Plan prepared and periodically reviewed and revised pursuant to chapter 70.95 RCW as may be amended from time to time, provided that any City or Town shall have the right to prepare or maintain its own comprehensive solid waste management plan and to

assess a solid waste fee on its own residents. For the duration of this Interlocal Agreement each City and Town, in conformity with RCW 70.95.080 (3), as may be amended from time to time, authorizes the County to include in the Comprehensive Solid Waste Management Plan provisions for the management of Solid Waste generated within its corporate limits.

5. City Designation of County System for Solid Waste Disposal. Each City and Town shall, to the extent permitted by law, designate the County System for the disposal of all Solid Waste generated within the corporate limits of that City or Town, and within the scope of the Comprehensive Plan, and authorize the County to designate a disposal site or sites for the disposal of such Solid Waste except for recyclable and other materials removed from Solid Waste by waste recycling activities in conformity with the Comprehensive Solid Waste Management Plan. This designation of the County System shall continue in full force until December 31, 2023. The designation of the County in this section shall not reduce or otherwise affect each City or Town's control over solid waste collection as permitted by applicable state law.

6. Enforcement. The County shall be primarily responsible for enforcement of laws and regulations requiring persons to dispose of Solid Waste at sites designated by the

County. Each City and Town shall cooperate with the County in its enforcement efforts, and by ordinance shall provide that any person that disposes of Solid Waste generated within that City or Town at a site other than a site designated by the County will be guilty of a misdemeanor, except where such disposal may be otherwise permitted by state law. To the extent legally possible, the County shall be responsible for bringing enforcement actions against persons violating state statutes or County ordinances relating to the disposal of Solid Waste at sites designated by the County. However, in instances in which the County lacks legal authority to bring an enforcement action, and any City or Town possesses that authority, the County may request that City or Town bring such enforcement action. The City or Town shall comply with any such request, or through the exercise of its authority under Chapter 35.21 RCW as may be amended from time to time, ensure that Solid Waste generated within the City or Town is disposed of at those sites designated by the County. The County shall pay as System costs all reasonable costs incurred by the City or Town in taking such enforcement or other actions that are requested in writing by the County.

7. Indemnifications.

7.1.The County shall indemnify and hold harmless and defend each City and Town against any and all claims by third parties arising out of the County's operations of

the System, and have the right to settle those claims by third parties, recognizing that all costs incurred by the County thereby are System costs which must be satisfied from disposal rates. In providing a defense for Cities or Towns, the County shall exercise good faith in that defense or settlement so as to protect the City's or Town's interests. The County's agreement to indemnify the Cities and Towns for any and all claims arising out of the County's operation of the System extends to all claims caused by the actions of officers or agents of the County, including but not limited to actions which constitute misfeasance, or intentional misconduct or wrongdoing, even if the cost of such claims is held by a court of competent jurisdiction to not be a proper cost to the System. For the purpose of this paragraph, "claims arising out of the County's operations" shall include claims arising out of the ownership, control or maintenance of the System, but shall not include claims arising out of the collection of solid waste within the Cities and Towns prior to its delivery to a disposal site designated by the County or other activities under the control of the Cites or Towns.

7.2.If the County acts to defend a City or Town against a claim, the City or Town shall cooperate with the County.

7.3. The County shall defend any City or Town against any challenge, whether judicially or before an administrative hearings panel, to the Comprehensive Plan elements adopted pursuant to this Interlocal Agreement.

7.4.For purposes of this section, reference to a City or Town and to the County shall be deemed to include the officers, agents and employees of any such party, acting within the scope of their authority.

8. Duration. This Interlocal Agreement shall continue to be in full force and effect until December 31, 2023, unless terminated as described in the following paragraph.

9. Revision, Amendment, Supplementation or Termination. This Interlocal Agreement shall be reviewed by the parties in conjunction with any review of the Comprehensive Solid Waste Management Plan. The terms of the Agreement may be revised, amended or supplemented, or the Agreement as a whole may be terminated only upon the written agreement of all signatories to this Agreement executed with the same formalities as the original. No revision, amendment, supplementation or termination shall be adopted or put into effect if it impairs any contractual obligation of the County.

10. Solid Waste Advisory Committee

Pursuant to RCW 70.95.165 (3) and RCW 39.34.030 (4), and Snohomish County Code section 7.34, a Solid Waste Advisory Committee shall continue operating as specified in Snohomish County Code. Each City or Town entering into this Agreement shall be represented equally on the Committee, and shall have at least one voting member.

11. Miscellaneous.

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

11.2 This Agreement is not entered into with the intent that it shall benefit any city or town not signing this agreement, and no other person or entity shall be entitled to be treated as a third party beneficiary of this Interlocal Agreement.

12. If any term or condition of this contract or the application thereof to any person(s) or circumstances is held invalid, such invalidity shall not affect other terms, conditions

or applications which can be given effect without the invalid term, condition or application. To this end, the terms and conditions of this contract are declared severable.

13. This Agreement may be executed in counterparts, each of which shall constitute an original, and all of which together shall constitute one and the same document.

14. Each of the individuals signing this Agreement on behalf of a municipality party to this Agreement, certifies that his or her signature has been authorized by appropriate action by ordinance, resolution or otherwise pursuant to the law of that municipality to bind the municipality to the terms of this Agreement.

This Interlocal Agreement has been executed by the parties shown below and is dated as of the _____day of_____, 2004.

SNOHOMISH COUNTY	CITY OF ARLINGTON
_____	_____
Aaron Reardon	Title_____
County Executive	
APPROVED BY	APPROVED BY
SNOHOMISH COUNTY	MOTION NO. _____
ORDINANCE NO. _____	Or ORDINANCE NO. _____

Approved as to form:

Carol J. Weibel 1-5-04

Carol J. Weibel
Deputy Prosecuting Attorney

or applications which can be given effect without the invalid term, condition or application. To this end, the terms and conditions of this contract are declared severable.

13. This Agreement may be executed in counterparts, each of which shall constitute an original, and all of which together shall constitute one and the same document.

14. Each of the individuals signing this Agreement on behalf of a municipality party to this Agreement, certifies that his or her signature has been authorized by appropriate action by ordinance, resolution or otherwise pursuant to the law of that municipality to bind the municipality to the terms of this Agreement.

This Interlocal Agreement has been executed by the parties shown below and is dated as of the 28th day of January, 2003.

SNOHOMISH COUNTY

MARK SOINE
Deputy Executive
for County Executive

APPROVED BY
SNOHOMISH COUNTY
ORDINANCE NO. _____

CITY OF ARLINGTON

Margaret Larson

Title _____

APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

COUNCIL USE ONLY
Approved: 1-16-08
Docfile: D-10

CITY OF BRIER

_____

Title Mayor

APPROVED BY

MOTION NO. at Council Mtg. 9-23-03

Or ORDINANCE NO. _____

TOWN OF DARRINGTON

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF EDMONDS

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF EVERETT

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

13. This Agreement may be executed in counterparts, each of which shall constitute an original, and all of which together shall constitute one and the same document.

14. Each of the individuals signing this Agreement on behalf of a municipal party to this Agreement, certifies that his or her signature has been authorized by appropriate action by ordinance, resolution or otherwise pursuant to the law of that municipality to bind the municipality to the terms of this Agreement.

This Interlocal Agreement has been executed by the parties shown below and is dated as of the 28th day of January, 2003.

SNOHOMISH COUNTY

COUNCIL USE ONLY
Approved: 1-16-08
Docfile: D-10

MARK SOINE
for Deputy Executive
County Executive

APPROVED BY
SNOHOMISH COUNTY
ORDINANCE NO. 07-147

BRIER

EDMONDS

MUKILTEO

SNOHOMISH

WOODWAY

Etc.

Wayne E. Kaser

APPROVED BY
MOTION ~~NO.~~ 9/23/03. Or
ORDINANCE NO. _____

CITY OF BRIER

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

TOWN OF DARRINGTON

Joyce A Jones

Title Mayor
APPROVED BY
MOTION NO. 7-14-04
Or ORDINANCE NO. _____

CITY OF EDMONDS

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF EVERETT

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF BRIER

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

TOWN OF DARRINGTON

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF EDMONDS

_____

Title MAYOR
APPROVED BY
MOTION ~~NO.~~ ON 1-20-04
Or ORDINANCE NO. _____

CITY OF EVERETT

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF GOLD BAR

Colleen Hawkins

Title Mayor

APPROVED BY

MOTION ~~NO.~~ 4/6/04

Or ORDINANCE NO. _____

CITY OF GRANITE FALLS

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

TOWN OF INDEX

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF EDMONDS

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF LAKE STEVENS

_____

Title_____

APPROVED BY

MOTION NO. _____

CITY OF GRANITE FALLS

Kyle Romach
Title Mayor
APPROVED BY
MOTION ~~NO.~~ ON MAY 25, 2005
Or ORDINANCE NO. _____

TOWN OF INDEX

_____
Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF EDMONDS

_____
Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF LAKE STEVENS

_____
Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF GOLD BAR

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF GRANITE FALLS

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

TOWN OF INDEX

_____

Title MAYOR
APPROVED BY
MOTION NO. N/A
Or ORDINANCE NO. N/A

CITY OF EDMONDS

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF LAKE STEVENS

_____

Title_____
APPROVED BY
MOTION NO. _____

13. This Agreement may be executed in counterparts, each of which shall constitute an original, and all of which together shall constitute one and the same document.

14. Each of the individuals signing this Agreement on behalf of a municipal party to this Agreement, certifies that his or her signature has been authorized by appropriate action by ordinance, resolution or otherwise pursuant to the law of that municipality to bind the municipality to the terms of this Agreement.

This Interlocal Agreement has been executed by the parties shown below and is dated as of the 27 day of August, 2003.

SNOHOMISH COUNTY	BRIER
	EDMONDS
	MUKILTEO
	SNOHOMISH
	WOODWAY
	Etc.

MARK SOINE
Deputy Executive
for
County Executive
1/28/08

MAYOR, TOWN OF INDEX

APPROVED BY
SNOHOMISH COUNTY
ORDINANCE NO. 07-147

COUNCIL USE ONLY
Approved: 1-16-08
Docfile: D-10

APPROVED BY
MOTION NO. n/a . Or
ORDINANCE NO. n/a

CITY OF GOLD BAR

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF GRANITE FALLS

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

TOWN OF INDEX

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF EDMONDS

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF LAKE STEVENS

Lynn E. Walty
Title Mayor
APPROVED BY minutes of
MOTION NO. 11-10-03

APPROVED AS TO FORM
LAKE STEVENS CITY ATTORNEY

CITY OF LYNNWOOD

_____ 9/1/14

Title MAYOR

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF MARYSVILLE

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF MILL CREEK

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF MONROE

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

Or ORDINANCE NO. _____

CITY OF LYNNWOOD

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

~~CITY~~ OF MARYSVILLE

Dennis L Kendall

Title Mayor
APPROVED BY City Council
~~MOTION NO.~~ June 28, 2004
~~Or ORDINANCE NO. _____~~

CITY OF MILL CREEK

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF MONROE

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

Or ORDINANCE NO. _____

CITY OF LYNNWOOD

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF MARYSVILLE

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF MILL CREEK

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF MONROE

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

Or ORDINANCE NO. _____

CITY OF LYNNWOOD

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF MARYSVILLE

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Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF MILL CREEK

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Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF MONROE

Donnetta Walser

Title Mayor 11/05/03
APPROVED BY
MOTION NO. x
Or ORDINANCE NO. _____

CITY OF MOUNTLAKE TERRACE

Connie L. Fessler

Title City Manager

COUNCIL CONSENT CALENDAR
JUNE 16, 2003

CITY OF MUKILTEO

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF SNOHOMISH

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF STANWOOD

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF SULTAN

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

1

CITY OF MOUNTLAKE TERRACE

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF MUKILTEO

Joe Marine

Title JOE MARINE, MAYOR

APPROVED BY 6.26.07

MOTION NO. AB 2007-68

Or ORDINANCE NO. _____

CITY OF SNOHOMISH

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF STANWOOD

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF MOUNTLAKE TERRACE

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF MUKILTEO

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF SNOHOMISH

_____

Title City Manager

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF STANWOOD

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF SULTAN

_____

Title_____

APPROVED BY

MOTION NO. _____

ATTEST:

By Torchie Corey

Torchie Corey, City Clerk

APPROVED AS TO FORM:

By Grant K. Weed

Grant K. Weed, City Attorney

1

CITY OF MOUNTLAKE TERRACE

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF MUKILTEO

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF SNOHOMISH

_____

Title_____

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. _____

CITY OF STANWOOD

Jennifer Tate

Title Mayor

APPROVED BY

MOTION NO. _____

Or ORDINANCE NO. 791

CITY OF MOUNTLAKE TERRACE

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF MUKILTEO

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Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF SNOHOMISH

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APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF STANWOOD

_____

Title_____
APPROVED BY
MOTION NO. _____
Or ORDINANCE NO. _____

CITY OF SULTAN

_____

Title Mayor
APPROVED BY
MOTION NO. 9/17/03

Or ORDINANCE NO. _____

TOWN OF WOODWAY

Carla A. Nichols

Title Mayor

APPROVED BY

MOTION NO. September 2, 2003

Or ORDINANCE NO. _____

1

RETURN NAME & ADDRESS
Snohomish County Council
attn: Barb Dikowski M/S 604
3000 Rockefeller Ave
Everett, WA 98201

200311070859 9 PGS
11-07-2003 02:41pm $0.00
SNOHOMISH COUNTY, WASHINGTON

Please print neatly or type information

Document Title(s)
Interlocal Agreement Between Snohomish County and Everett Regarding Solid Waste Mgmt

Reference Number(s) of related documents:

n/a

Additional Reference #'s on page ___

Grantor(s) (Last, First, and Middle Initial)

City of Everett

Additional Grantors on page ___

Grantee(s) (Last, First, and Middle Initial)

Snohomish County

Additional Grantees on page ___

Legal Description (abbreviated form: i.e. lot, block, plat or section, township, range, quarter/quarter)

n/a

Complete legal on page ___

Assessor's Property Tax Parcel/Account Number

n/a

Additional parcel #'s on page ___

The Auditor/Recorder will rely on the information provided on this form. The responsibility for the accuracy of the indexing information is that of the document preparer.

INTERLOCAL AGREEMENT BETWEEN SNOHOMISH COUNTY AND EVERETT REGARDING SOLID WASTE MANAGEMENT

WHEREAS, Washington counties, cities and towns are authorized and directed by Chapter 70.95 RCW to prepare a Comprehensive Solid Waste Management Plan, and are further authorized by Chapter 39.34 RCW to enter into an Interlocal Agreement for the administration and implementation of said Plan; and

WHEREAS, Snohomish County prepared a Comprehensive Solid Waste Management Plan for the County and Cities and Towns of the county in 1990, and updated that Plan with the active involvement of the Cities and Towns in 2001; and

WHEREAS, the 2001 Plan update calls for significant improvements to and replacements for existing waste facilities, and the County has entered into a waste export contract that expires in 2013, and in light of these factors long term financial planning is desirable; and

WHEREAS, providing the most effective and efficient system for managing solid waste generated in Snohomish county, including its Cities and Towns, requires use of the solid waste disposal system established by the County and the Comprehensive Plan of the County to the fullest extent possible;

NOW, THEREFORE, Snohomish County and the City of Everett agree as follows:

1. This Interlocal Agreement entirely replaces the previous Interlocal Agreement- Solid Waste Disposal that the parties entered into in 1990.

2. Definitions. For the purposes of this Interlocal Agreement, the following definitions apply:

2.1 "City"/"Town" means a City or Town in Snohomish County, Washington that is a signatory to this Interlocal Agreement or the Interlocal Agreement Between Snohomish County And Its Cities And Towns Regarding Solid Waste Management.

2.2 "Comprehensive Solid Waste Management Plan" or "Comprehensive Plan" means the Snohomish County Comprehensive Solid Waste Management Plan issued in March 2002 and as amended from time to time.

2.3 "County" means Snohomish County, Washington.

2.4 "Interlocal Agreement" means this Interlocal Agreement Between Snohomish County and Everett Regarding Solid Waste Management.

2.5 "Person" means an individual, firm, association, partnership, political subdivision, government agency, municipality, industry, public or private corporation, or any other entity whatsoever.

2.6 "Solid Waste" means all putrescible and nonputrescible 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, with the exception of wastes excluded by WAC 173-304-015.

2.7 "Solid Waste Handling" means the management, storage, collection, transportation, treatment, utilization, processing, transfer, and final disposal of Solid Wastes, including the recovery and recycling of materials from solid wastes, the recovery of energy resources from such wastes or the conversion of the energy in such wastes to more useful forms or combinations thereof, and as such term may be modified by amendments to RCW 70.95.030 (23).

2.8 "System" means all facilities for Solid Waste Handling owned or operated, or contracted for, by the County, and all administrative activities related thereto.

3. Responsibilities for Waste Disposal and System. For the duration of this Interlocal Agreement, the County shall have the following responsibilities:

3.1 The County shall continue to provide for the efficient disposal of all Solid Waste generated within unincorporated areas of the County and within the City of Everett to the extent, in the manner, and by facilities as described in the Comprehensive Solid Waste Management Plan. The County shall not be responsible for disposal of nor claim that this Agreement extends to Solid Waste that has been eliminated through waste recycling activities in conformity with the Comprehensive Solid Waste Management Plan.

3.2 The County shall provide for the disposal of household hazardous wastes by households at the System's existing Moderate Risk Waste Facility, or in another reasonable and similarly convenient manner.

3.3 The County shall continue to provide a comprehensive solid waste management system, including educational programs, as defined by the Comprehensive Plan.

3.4. The County shall continue to operate the System in a financially prudent manner, minimize fee increases, and use System revenues only for System purposes.

4. Comprehensive Plan. For the duration of this Interlocal Agreement, the City of Everett shall participate in the Comprehensive Solid Waste Management Plan prepared and periodically reviewed and revised pursuant to chapter 70.95 RCW, provided that the City shall have the right to maintain its own comprehensive solid waste management plan, applicable only to Everett, and continue to assess a solid waste fee on Everett residents. For the duration of this Interlocal Agreement, the City of Everett authorizes the County to include in the Comprehensive Solid Waste Management Plan provisions for the management of Solid Waste generated in Everett.

5. City Designation of County System for Solid Waste Disposal. Everett shall, to the extent permitted by law, designate the County System for the disposal of all Solid Waste generated within the corporate limits of Everett, and within the scope of the Comprehensive Plan, and authorize the County to designate a disposal site or sites for the disposal of such Solid Waste except for recyclable and other materials removed from Solid Waste by waste recycling activities in conformity with the Comprehensive Solid Waste Management Plan. This designation of the County System shall continue in full force until December

31, 2023. In the event that Everett chooses to maintain its own comprehensive solid waste management plan, that plan shall contain nothing in conflict with this designation of the County System during the term of this Interlocal Agreement. The designation of the County in this section shall not reduce or otherwise affect Everett's control over solid waste collection as permitted by applicable state law.

6. Enforcement. The County shall be primarily responsible for enforcement of laws and regulations requiring persons to dispose of Solid Waste at sites designated by the County. Everett shall cooperate with the County in its enforcement efforts, and shall provide, by ordinance, that any person that disposes of Solid Waste generated within Everett at a site other than a site designated by the County will be guilty of a misdemeanor, except where such disposal may be otherwise permitted by state law. To the extent legally possible, the County shall be responsible for bringing enforcement actions against persons violating state statutes or County ordinances relating to the disposal of Solid Waste at sites designated by the County. However, in instances in which the County lacks legal authority to bring an enforcement action, and Everett possesses that authority, the County may request that Everett bring such enforcement action. Everett shall comply with any such request, or exercise its authority under Chapter 35.21 RCW to ensure, in some other way that Solid Waste generated within Everett is disposed of at those sites designated by the County. The County shall pay as System costs all reasonable costs incurred by Everett in taking such enforcement or other actions that are requested in writing by the County.

7. Indemnifications.

7.1 The County shall indemnify and hold harmless and defend Everett against any and all claims by third parties arising out of the County's operations of the System, and have the right to settle those claims by third parties, recognizing that all costs incurred by the County thereby are System costs which must be satisfied from disposal rates. In providing a defense for Everett, the County shall exercise good faith in that defense or settlement so as to protect Everett's interests. The County's agreement to indemnify Everett for any and all claims arising out of the County's operation of the System extends to all claims caused by the actions of officers or agents of the County, including but not limited to actions which constitute misfeasance, or intentional misconduct or wrongdoing, even if the cost of such claims is held by a court of competent jurisdiction to not be a proper cost to the System. For the purpose of this paragraph, "claims arising out of the County's operations" shall include claims arising out of the ownership, control or maintenance of the System, but shall not include the claims arising out of collection of solid waste within Everett prior to its delivery to a disposal site designated by the County or other activities under the control of Everett.

7.2 If the County acts to defend Everett against a claim, Everett shall cooperate with the County.

7.3 For purposes of this section, reference to a City or Town and to the County shall be deemed to include the officers, agents and employees of any such party, acting within the scope of their authority.

8. Duration. This Interlocal Agreement shall continue to be in full force and effect until December 31, 2023, unless terminated as described in the following paragraph.

9. Revision, Amendment, Supplementation or Termination. This Interlocal Agreement shall be reviewed by the parties in conjunction with any review of the Comprehensive Solid Waste Management Plan. The terms of the Agreement may be revised, amended or supplemented, or the Agreement as a whole may be terminated only upon the written agreement of both the County and Everett executed with the same formalities as the original. No revision, amendment, supplementation or termination shall be adopted or put into effect if it impairs any contractual obligation of the County.

10. Solid Waste Advisory Committee. Pursuant to RCW 70.95.165 (3) and RCW 39.34.030 (4), and Snohomish County Code section 7.34, a Solid Waste Advisory Committee shall continue operating as specified in Snohomish County Code. The City of Everett shall have at least one voting member of the Committee.

11. Miscellaneous.

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

11.2 Notwithstanding the fact that Everett understands and agrees that the County intends to enter into agreements substantially similar to this one with

all the other Cities and Towns located within the County's boundaries, the only parties to this Interlocal Agreement are the County and Everett, and no other person or entity shall be entitled to be treated as a third party beneficiary of this Interlocal Agreement.

12. If any term or condition of this Interlocal Agreement or the application thereof to any person(s) or circumstances is held invalid, such invalidity shall not affect other terms, conditions or applications which can be given effect without the invalid term, condition or application. To this end, the terms and conditions of this Interlocal Agreement are declared severable.

This Interlocal Agreement has been executed by the parties shown below and is dated as of the 5th day of NOVEMBER, 2003.

SNOHOMISH COUNTY

Bob Drewel
County Executive

9/3/03
GARY WEIKEL
Deputy Executive

APPROVED BY

SNOHOMISH COUNTY

ORDINANCE NO. 03-114

EVERETT

Frank Anderson
Mayor of Everett

APPROVED BY

EVERETT

ORDINANCE NO. 2716-03

ATTEST:

City Clerk

APPROVED AS TO FORM:

Carol Weibel 9-2-03
Deputy Prosecuting Attorney

APPROVED AS TO FORM:

Mark Soine
City Attorney D-7

Unofficial Document

201107080092 29 PGS
07/08/2011 9:44am $0.00
SNOHOMISH COUNTY, WASHINGTON

After Recording Return to:

Assistant Clerk
Snohomish County Council
3000 Rockefeller, M/S 609
Everett, WA 98201

Agencies: Snohomish County and City of Bothell
Tax Account No.: N/A
Legal Description: N/A
Reference No. of Documents Affected: Interlocal Recorded at AF#_____
Filed with the Auditor pursuant to RCW 39.34.040
Documents Title:

MASTER ANNEXATION INTERLOCAL AGREEMENT BETWEEN THE CITY OF BOTHELL AND SNOHOMISH COUNTY CONCERNING ANNEXATION AND URBAN DEVELOPMENT WITHIN THE BOTHELL MUNICIPAL URBAN GROWTH AREA

1. PARTIES

This Interlocal Agreement ("Agreement" or "ILA") is made by and between the City of Bothell ("City"), a Washington municipal corporation, and Snohomish County ("County"), a political subdivision of the State of Washington, individually referred to as a "Party" and collectively as the "Parties," pursuant to Chapter 36.70A RCW (Growth Management Act), Chapter 36.115 RCW (Governmental Services Act), Chapter 43.21C RCW (State Environmental Policy Act), Chapter 36.70B RCW (Local Project Review), Chapter 58.17 RCW (Subdivisions), Chapter 82.02 RCW (Excise Taxes), and Chapter 39.34 RCW (Interlocal Cooperation Act).

2. PURPOSE, INTENT AND APPLICABILITY

2.1 Purpose. The purposes of this Agreement are to facilitate an orderly transition of services and responsibility for capital projects from the County to the City at the time of annexation of unincorporated areas of the County to the City; and, both prior to and following annexation, to address reciprocal mitigation of interjurisdictional land development impacts and joint planning of City and County services and facilities having interjurisdictional implications. This Agreement is intended to serve as a master annexation interlocal agreement addressing all future annexations by the City of unincorporated County territory.

2.2 Snohomish County Tomorrow Annexation Principles. The County and the City intend that this Agreement be interpreted in a manner that furthers the objectives articulated in the Snohomish County Tomorrow Annexation Principles. For the purpose of this Agreement, the Snohomish County Tomorrow Annexation Principles means that document adopted by the

Snohomish County Tomorrow Steering Committee on February 28, 2007, and supported by the Snohomish County Council in Joint Resolution No. 07-026 passed on September 5, 2007. The Snohomish County Tomorrow Annexation Principles are attached to this Agreement as Exhibit A. As provided for in the Annexation Principles, the City opts out of preparing and maintaining a Six Year Annexation Plan because at the effective date of this Agreement, the City is considering annexations which comprise the entire Bothell Municipal Urban Growth Area (MUGA) as it exists at the time of this Agreement.

2.3 Establish a framework for future annexations. The City and County intend that this Agreement provide a framework for future annexations within the Bothell MUGA to implement urban development standards within the Bothell MUGA prior to annexation, to plan for and fund capital facilities in the unincorporated portion of the Bothell MUGA, and to enable consistent responses to future annexations.

2.4 Subsequent agreements and interpretations. The City and County recognize that this Agreement includes general statements of principle and policy, and that addenda or amendments to existing interlocal agreements or government service agreements or subsequent agreements on specific topical subjects relating to annexation and service transition may be executed. By way of example only, and not by way of limitation, the City and County contemplate that such subsequent amendments or agreements might address the following types of issues: roads and traffic impact mitigation; surface water management; parks, recreation and open space; police services; fire marshal services; permit review services; revenue- and cost-sharing; common zoning and development standards; and sub-area planning. In addition, a subsequent agreement or an addendum to this Agreement might address issues related to the annexation of a specific area. In the event that any term or provision in this Agreement conflicts with any term or provision in any subsequent agreement, addendum or amendment, the term or provision in the subsequent agreement, addendum or amendment shall prevail unless specifically stated otherwise in this Agreement.

2.5 Applicability. This Agreement applies to all annexations within the geographic areas described in Subsection 2.6 of this Agreement that will be finalized by the City after the effective date of this Agreement.

2.6 Geographic areas eligible for annexation.

2.6.1 Appendix B of the Snohomish County Countywide Planning Policies, as now existing or hereafter amended, identifies the Bothell MUGA in the Southwest Urban Growth Area (SWUGA) Map, which is a component of the County's Countywide Planning Policies. It is within the Bothell MUGA,

as now existing or hereafter amended, in accordance with the Snohomish County Countywide Planning Policies, that the City may consider future annexations. The area of the SWUGA map which shows the Bothell MUGA at the time of the effective date of this Agreement is attached to this Agreement as Exhibit B.

2.6.2 If the City proposes any annexation which would include territory located within the SWUGA but outside of the Bothell MUGA as adopted in the Countywide Planning Policies, and the city in whose MUGA such territory is located agrees in writing to the proposed annexation boundaries, the County may not oppose the annexation based solely on such territory being outside of the Bothell MUGA.

2.6.3 Pursuant to RCW 35A.14.410, the boundaries arising from an annexation of territory shall not include a portion of the right-of-way of any public street, road, or highway except where the boundary runs from one edge of the right-of-way to the other edge of the right-of-way. When such right-of-way of any public street, road, or highway is included in an annexation proposal, it shall be considered a part of the City's MUGA.

3. GENERAL PROVISIONS

3.1 Consistency of Annexation. If the Snohomish County Council finds that a proposed annexation within the Bothell MUGA is consistent with this Agreement, the objectives established in RCW 36.93.180, and the health, safety and general welfare of Snohomish County citizens affected by the annexation, and that an addendum pursuant to Section 16 of this Agreement is completed or is not necessary, the County shall not oppose the proposed annexation and will send a letter to the Boundary Review Board in support of the proposed annexation.

3.2 Public facilities and services. The City and County share a commitment to ensure that public facilities and services which are within the funding capacities of the City and County will be adequate to serve development within the MUGA at the time such development is available for occupancy and use without decreasing current service levels below locally established minimum standards.

3.3 Reciprocal mitigation and impact fees. The City and County believe it is in the best interest of the citizens of both jurisdictions to enable reciprocal imposition of impact mitigation requirements and regulatory conditions for improvements in the respective jurisdictions. A separate interlocal agreement known as the *"Interlocal Agreement between Snohomish County and the City of Bothell on Reciprocal Mitigation of Transportation Impacts,"* which was effective on August 9, 2006, addressing reciprocal transportation impact mitigation, already exists between the City and the

County. Other interlocal agreements on reciprocal mitigation may be negotiated after the effective date of this Agreement as described in Subsection 2.4 of this Agreement. Whether impact fees can be collected and transferred between the County and the City will depend, in part, on the circumstances of any individual annexation and the plans of the jurisdictions to provide improvements for the benefit of the annexed area.

3.4 Joint planning provision. The City and County recognize the need for joint planning to establish local and regional facilities the jurisdictions have planned or anticipate for the area, to identify ways to jointly provide these facilities, and to identify transition of ownership and maintenance responsibilities as annexations occur. This need may result in mutual ongoing planning efforts, joint capital improvement plans, and reciprocal impact mitigation. By way of example only, and not by way of limitation, joint planning issues may include: planning, design, funding right-of-way acquisition, construction, and engineering for road projects; regional transportation plans; infrastructure coordination; watershed management planning; capital construction and related services; parks, recreation, and open space; permit review services; revenue and cost-sharing; adoption of common zoning and development standards; and sub-area planning.

3.5 City to adopt County codes and ordinances. The City agrees to adopt by reference the County codes and ordinances listed in Exhibit C of this Agreement for the purpose of allowing the County to process and complete permits and fire inspections in annexed areas. Adoption of the County's codes by the City in no way affects projects applied for under the City's jurisdiction. The County shall be responsible for providing copies of all the codes and ordinances listed in Exhibit C of this Agreement, in addition to all the updates thereto, to the Bothell City Clerk, so that the City Clerk may maintain compliance with RCW 35A.12.140.

3.6 City and County responsibilities. Within their own jurisdictions, the County and the City each have responsibility and authority derived from the Washington State Constitution, state statutes, and any local charter to plan for and regulate uses of land and resultant environmental impacts.

3.7 Intergovernmental cooperation for extra-jurisdictional impacts. The City and the County recognize that land use decisions and transportation planning can have extra-jurisdictional impacts and that intergovernmental cooperation is an effective manner to deal with impacts and opportunities that transcend local jurisdictional boundaries.

3.8 Coordinated Planning. The City and the County recognize that sub-area planning related to interjurisdictional coordination as outlined in the Snohomish County Tomorrow Annexation Principles facilitate the transition of services from the County to the City in the event of an

annexation. Addenda or amendments to existing interlocal agreements or government service agreements, or subsequent agreements on specific topical subjects relating to annexation and service transition, as described in Subsection 2.4 of this Agreement, will reflect joint planning between the City and the County relative to the Snohomish County Tomorrow Annexation Principles.

3.9 Taxes, fees, rates, charges, and other monetary adjustments. In reviewing annexation proposals, the City and County must consider the effect on the finances, debt structure, and contractual obligations and rights of all affected governmental units. Tax and revenue transfers are generally provided for by state statute.

3.10 Wetland mitigation sites and habitat projects. The City and County share a commitment to ensure the success of wetland mitigation sites and habitat improvement projects. The City and County agree that both jurisdictions will benefit from the maintenance and monitoring of publicly constructed and maintained wetland mitigation sites and habitat improvement projects. If such sites or projects exist in an annexation area, the City and County may enter into an agreement prior to the effective date of the annexation to determine responsibility and costs for maintenance and monitoring for wetland mitigation sites and habitat improvement projects.

4. GROWTH MANAGEMENT ACT ("GMA") AND LAND USE

4.1 Urban density requirements. Except as may be otherwise allowed by law, the City agrees to adopt and maintain land use designations and zones that will accommodate the population and employment allocations assigned by the County under the GMA for the City and the Bothell MUGA as established in Appendix B of the Countywide Planning Policies for Snohomish County. The City reserves the right to designate and zone land within the City to accommodate such allocations irrespective of internal boundaries between King and Snohomish Counties and between prior City limits and newly annexed territory. Should such designation and zoning result in a different growth allocation for the Snohomish County portion of the City, then consultation with Snohomish County Tomorrow for amendments to Appendix B of the Countywide Planning Policies of Snohomish County shall be required. Nothing in this Subsection 4.1 shall be deemed as a waiver of the City's right to appeal the assignment of such population and employment allocation under the GMA.

4.2 Land Use, Urban Centers and Transit Corridor Requirements. The City agrees to ensure after annexation that the City's comprehensive plan and development regulations will provide for land use designations and zones necessary to support transit corridors designated by the County or a

transit agency or to be consistent with the land use designations and zones adopted by the County in its comprehensive plan prior to annexation.

4.3 Transfer of Development Rights. If an area to be annexed has been designated a Transfer of Development Rights (TDR) receiving area by the County, the City agrees that after annexation, the area shall remain a TDR receiving area or the City shall ensure that other areas of the City are designated TDR receiving areas so that the City's development regulations provide equivalent or greater receiving capacity for receiving TDR certificates and equivalent or greater incentives for the use of TDR certificates.

4.4 City standards. The County agrees to encourage land use project permit applicants within the Bothell MUGA to design projects consistent with the City's urban design and development standards; however, the City agrees that the County can require only that an applicant comply with the County's development regulations. The City agrees to make written recommendations to the County on how proposed land use permit applications could be made consistent with City standards. When approval of a project permit is contingent upon extension of water or sewer service provided by the City, the County agrees to impose only those conditions related to the provision of such service voluntarily negotiated between the property owner or developer and the City as a condition of a water or sewer contract between the property owner or developer and the City, provided that the conditions meet minimum County development standards and mitigation conditions.

4.5 Joint review of permit applications. The City and County recognize that it is in the best interest of both jurisdictions to engage in the shared review of County permit applications within areas anticipated for annexation. The City and County agree to consider a potential subsequent agreement relating to shared permit review.

5. PROCESSING OF PERMITS IN THE BOTHELL MUGA

5.1 Definitions. For the purposes of this Agreement, the following definitions apply:

"Building permit application" shall mean an application for printed permission issued by the authorizing jurisdiction that allows for the construction of a structure, and includes repair, alteration, or addition of or to a structure.

"Associated permit application" shall mean an application for mechanical, electrical, plumbing and/or sign permit for a structure authorized pursuant to a building permit.

"Land use permit application" shall mean an application for any land

use or development permit or approval and shall include, by way of example and not by way of limitation, any of the following: subdivisions, planned residential developments, short subdivisions, binding site plans, single family detached units, conditional uses, special uses, rezones, shoreline substantial development permits, grading or land disturbing activity permits and variances. A "land use permit application" shall not include a "building permit application" except for non-single family building permits for structures greater than 4,000 square feet in size.

"Pending permit applications" shall mean all building permit applications, associated permit applications and land use permit applications respecting real property located in an annexation area that are either (i) still under review by the County on the effective date of the annexation, or (ii) for which a decision has been issued but an administrative appeal is pending on the effective date of the annexation.

"Permit review phase" shall mean a discrete stage of or discrete activity performed during a jurisdiction's review of a pending permit application that has a logical starting and stopping point. By way of example, and not by way of limitation, applications for subdivisions and short subdivisions are deemed to have the following permit review phases: (i) preliminary plat approval; (ii) plat construction plan approval; (iii) revision, alteration or modification of a preliminary plat approval; (iv) construction inspection; (v) final plat processing; and (vi) final plat approval and acceptance. When it is not clear which activities related to the review of a particular pending permit application constitute a distinct permit review phase, the County and the City shall determine same by mutual agreement, taking into account considerations of convenience and efficiency.

5.2 City consultation on County land use permit applications. After the effective date of this Agreement, the County agrees to give the City timely written notice and review opportunity related to all land use permit applications inside the Bothell MUGA, as defined in Subsection 5.1 of this Agreement. The County will invite City staff to attend meetings between County staff and the applicant relating to such permit applications, including pre-application meetings.

5.3 Review of County land use permit applications. All land use permit applications under County jurisdiction in the Bothell MUGA will be reviewed consistent with all applicable laws, regulations, rules, policies and agreements including, but not limited to, the applicable provisions of this Agreement, the State Environmental Policy Act (Chapter 43.21C RCW) and the Snohomish County Code.

5.4 Permits issued by County prior to effective date of annexation. All building permits, associated permits and land use permits and approvals respecting real property located in an annexation area that were issued or

approved by the County prior to the effective date of an annexation shall be given full effect by the City after the annexation becomes effective. Any administrative appeals of such decisions that are filed after the effective date of the annexation shall be filed with the City and handled by the City pursuant to the City's municipal code.

5.5 Enforcement of County conditions. Any conditions imposed by the County relating to the issuance or approval of any of the permits described in Subsection 5.4 above shall be enforced by the City after the effective date of an annexation to the same extent the City enforces its own permit conditions. The County agrees to make its employees available, at no cost to the City, to provide assistance in enforcement of conditions on permits originally processed and issued by the County.

5.6 Pending permit applications.

5.6.1 Vesting. The County and the City agree that any complete building permit application, associated permit application or land use permit application respecting real property located in an annexation area that is submitted to the County prior to the effective date of an annexation and that has vested under Washington statutory or common law or the Snohomish County Code shall remain subject to the laws and regulations of the County that were in effect at the time the permit application was deemed complete by the County, notwithstanding any subsequent annexation.

5.6.2 Automatic transfer of authority regarding permits. The County and the City understand and agree that the police power with respect to real property located in an annexation area automatically transfers from the County to the City on the effective date of an annexation. The Parties understand and agree that it is the police power that provides local jurisdictions with the authority to impose and implement building and land use regulations. Accordingly, the Parties understand and agree that, as a matter of law, all responsibility for and authority over pending permit applications automatically transfers from the County to the City on the effective date of an annexation.

5.6.3 Completing the active phase of review. The County and the City agree that to facilitate an orderly transfer of pending permit applications to the City after the effective date of an annexation, it is desirable for the County to continue processing all pending permit applications through the completion of the permit review phase that was in progress on the effective date of the annexation. Accordingly, beginning on the effective date of any annexation governed by this Agreement, the County shall act as the City's agent for the limited purpose of reviewing and processing all pending permit applications until such time as County personnel have completed the permit review phase that was in progress on the effective

date of the annexation at issue. Upon completion of such permit review phase with respect to any particular pending permit application, the County shall transfer all materials relating to the pending permit application to the City. After such transfer, the City shall perform all remaining permit review and approval activities.

5.6.4 Urban Center permit vesting. The County and the City agree that any complete building permit application, associated permit applications or land use permit application respecting Urban Center zoned real property located in an annexation area that is submitted to the County prior to the effective date of an annexation and that has vested under Washington statutory or common law or the Snohomish County Code shall remain subject to the laws and regulations of the County that were in effect at the time the permit application was deemed complete by the County, notwithstanding any subsequent annexation.

5.6.5 Urban Center permit review. The County shall involve the City in the review of an Urban Center permit application as outlined in chapter 30.34A SCC, the County regulations governing Urban Center development.

5.6.6 Urban Center application and annexation. All pending Urban Center permit applications within an annexed area shall be transferred to the City after the effective date of annexation pursuant to provisions of Subsection 5.6.3, but in the event the County and City cannot agree on when the transfer of the Urban Center permit applications shall occur, the County shall continue to review and process the pending Urban Center permit applications until such time the County determines the transfer of permit application is appropriate.

5.6.7 Exception for administrative appeals. Notwithstanding anything to the contrary contained in Subsection 5.6.3 and 5.6.6 above, the County and the City agree that it is not desirable for the County's quasi-judicial hearing officers or bodies to act as agents for the City for the purposes of hearing and deciding administrative appeals of permit decisions on behalf of the City, but it is also not desirable to disrupt an administrative appeal that is already in progress on the effective date of an annexation. Accordingly, if the permit review phase that was in progress on the effective date of an annexation was an administrative appeal of a decision made by the County, then that administrative appeal shall be handled as follows: (i) if the appeal hearing has not yet occurred as of the effective date of the annexation, then all materials related to the appeal shall be transferred to the City as soon as reasonably possible after the effective date of the annexation and the appeal shall be handled by the City pursuant to the procedures specified in the City's municipal code; (ii) if the appeal hearing has already occurred as of the effective date of the annexation,

but no decision has yet been issued by the County's quasi-judicial hearing officer or body, then the County's quasi-judicial hearing officer or body shall act as an agent for the City and issue a timely decision regarding the administrative appeal on behalf of the City; or (iii) if a decision regarding the administrative appeal was issued by the County's quasi-judicial hearing officer or body prior to the effective date of the annexation, but a timely request for reconsideration was properly filed with the County prior to the effective date of the annexation, then the County's quasi-judicial hearing officer or body shall act as an agent for the City and issue a timely decision on reconsideration on behalf of the City.

5.6.8 Effect of decisions by the County regarding permit review phases. The City shall respect and give effect to all decisions made by the County regarding those permit review phases for a pending permit application that are completed by the County prior to the transfer of the pending permit application to the City, regardless of whether such decisions were made by the County on its own behalf prior to the effective date of annexation, or on behalf of the City after the effective date of annexation.

5.6.9 Proportionate sharing of permit application fees. The County and the City agree to proportionately share the permit application fees for pending permit applications. Proportionate shares will be calculated based on the County's permitting fee schedule. With respect to each pending permit application, the County shall retain that portion of the permit application fees that is allocable to the phases of review completed by the County prior to the effective date of the annexation. In compensation for the County's work in reviewing pending permit applications on behalf of the City, the County shall also retain that portion of the permit application fees that is allocable to the phase(s) of review completed by the County while acting as an agent of the City. The County shall transfer to the City any remaining portion of the permit application fees collected, which shall be commensurate with the amount of work left to be completed with respect to the pending permit application at the time the pending permit application is transferred to the City.

5.6.10 Dedications or conveyances of real property. The City and the County acknowledge and agree that after the effective date of an annexation the County Council will have no authority to accept dedications or other conveyances of real property to the public with respect to real property located in the area that has been annexed by the City. Accordingly, notwithstanding anything to the contrary contained elsewhere in this Section 5, after the effective date of any annexation governed by this Agreement, the approval and acceptance of final plats or other instruments or documents dedicating or conveying to the public an interest in real property located in the annexed area will be transmitted to the City for acceptance by the City Council.

5.7 Judicial appeals of permit decisions. The County shall be responsible for defending, at no cost to the City, any judicial appeals of decisions regarding building permit applications, associated permit applications and/or land use permit applications respecting real property located in an annexation area that were made or issued by the County prior to the effective date of the annexation. The City shall be responsible for defending, at no cost to the County, any judicial appeals of decisions regarding building permit applications, associated permit applications and/or land use permit applications respecting real property located in an annexation area that are made or issued after the effective date of the annexation, regardless of whether such decisions are made or issued by City personnel or by the County in its capacity as an agent for the City pursuant to Subsection 5.6 of this Agreement.

5.8 Permit renewal or extension. After the effective date of annexation, any request or application to renew or extend a building permit, an associated permit or a land use permit respecting real property located in the annexed area shall be submitted to and processed by the City, regardless of whether such permit was originally issued by the County or the City.

5.9 Administration of bonds. The County's interest in any outstanding performance security, maintenance security or other bond or security device issued or provided to the County to guarantee the performance, maintenance or completion by a permittee of work authorized by or associated with a permit respecting real property located in an annexation area will be assigned or otherwise transferred to the City upon the effective date of the annexation if such assignment or transfer is reasonably feasible. If it is not reasonably feasible for the County to transfer any outstanding bond or security device to the City, whether due to the terms of the bond or security device at issue or for some other reason, then the County shall continue to administer the bond or security device until the earlier to occur of the following: (i) the work guaranteed by the bond or security device has been properly completed; (ii) the City has been provided with an acceptable substitute bond or security device; or (iii) the bond or security device has been foreclosed. For bonds and security devices that the County continues to administer after the effective date of annexation, the City shall notify the County when either the work guaranteed by the bond or security device is completed, or when the City is provided with an acceptable substitute bond or security device, at which time the County shall release the original bond or security device. Should it become necessary to foreclose any bond or security device the County continues to administer after the effective date of annexation, the County and the City shall cooperate to perform such foreclosure.

5.10 Building and land use code enforcement cases. Any pending building or

land use code enforcement cases respecting real property located in an annexation area will be transferred to the City on the effective date of the annexation. Any further action in those cases will be the responsibility of the City at the City's discretion. The County agrees to make its employees available as witnesses at no cost to the City if necessary to prosecute transferred code enforcement cases. Upon request, the County agrees to provide the City with copies of any files and records related to any transferred case.

6. RECORDS TRANSFER AND ACCESS TO PUBLIC RECORDS FOLLOWING ANNEXATION

6.1 Records to be transferred. Prior to and following annexation of unincorporated area into the City, and upon the City's request in writing, copies of County records relevant to jurisdiction, the provision of government services and permitting within the annexation area may be copied and transferred to the City in accordance with the procedure identified in Subsection 6.2 of this Agreement. Said records shall include, but are not limited to, the following records from the Snohomish County Department of Public Works, the Snohomish County Department of Planning and Development Services, and the Business Licensing Department of the Snohomish County Auditor's office: all permit records and files, inspection reports and approved plans, GIS data and maps in both printed and electronic versions, approved zoning files, code enforcement files, fire inspection records, easements, plats, databases for land use, drainage, street lights, streets, regulatory and animal license records, records relating to data on the location, size and condition of utilities, and any other records pertinent to the transfer of services, permitting and jurisdiction from the County to the City. The County reserves the right to withhold confidential or privileged records. In such cases where the County opts to withhold such records, it shall provide the City with a list identifying the records withheld.

6.2 Procedure for copying. The City records staff shall discuss with the County records staff the types of records identified in Subsection 6.1 of this Agreement that are available for an annexed area, the format of the records, the number of records, and any additional information pertinent to a request of records. Following this discussion, the County shall provide the City with a list of the available files or records in its custody. The City shall select records from this list and request in writing their transfer from the County to the City. The County shall have a reasonable time to collect, copy, and prepare for transfer of the requested records. All copying costs associated with this process shall be borne by the City. When the copied records are available for transfer to the City, the County shall notify the City and the City shall arrange for their delivery.

6.3 Electronic data. In the event that electronic data or files are requested by the City, the City shall be responsible for acquiring any software licenses that are necessary to use the transferred information.

6.4 Custody of records. The County shall retain permanent custody of all original records. No original records shall be transferred from the County to the City. As the designated custodian of original records, the County shall be responsible for compliance with all legal requirements relating to their retention and destruction as set forth in Subsection 6.5 of this Agreement.

6.5 Records retention and destruction. The County agrees to retain and destroy all public records pursuant to this Agreement consistent with the applicable provisions of Chapter 40.14 RCW and the applicable rules and regulations of the Secretary of State, Division of Archives and Records Management.

6.6 Public records requests. Any requests for copying and inspection of public records shall be the responsibility of the Party receiving the request. Requests by the public shall be processed in accordance with Chapter 42.56 RCW and other applicable law. The City agrees to withhold from disclosure documents which the County has requested remain confidential and not be disclosed where disclosure is not mandated by law.

7. COUNTY CAPITAL FACILITIES REIMBURSEMENT

7.1 Consultation regarding capital expenditures. The County will consult with the City in planning for new local and regional capital construction projects within the Bothell MUGA. The County and City agree to begin consultation regarding existing active County projects within sixty (60) days of approval of this Agreement. Consultation shall include discussions between the County and the City regarding the need for shared responsibilities in implementing capital projects, including the potential for indebtedness by bonding or loans. The City and County shall pursue cooperative financing for capital facilities where appropriate. Interlocal agreements addressing shared responsibilities for capital projects within the Bothell MUGA shall be negotiated, where appropriate.

7.2 Continued planning, design, funding, construction, and services for active and future capital projects. Separate interlocal agreements for specific projects will address shared responsibilities for local capital projects and local share of regional capital facilities within the Bothell MUGA and the continued provision of County services relating to the planning, design, funding, property acquisition, construction, and engineering for local capital projects within an annexation area. An annexation addendum

under Section 16 of this Agreement will document appropriate interlocal agreements relating to planning, design, funding, property acquisition, construction, and other architectural or engineering services for active and future capital projects within an annexation area.

7.3 Capital facilities finance agreements. The City and County will discuss project-specific interlocal agreements for major new local capital facility projects and local share of regional capital facilities within the Bothell MUGA. Depending on which jurisdiction has collected revenues, these agreements may include: transfers of future revenues from the City to the County or from the County to the City; proportionate share reimbursements from the City to the County or from the County to the City; and City assumption of County debt service responsibility (or County assumption of City debt service responsibility) for loans or other financing mechanisms for new local capital projects and existing local capital projects with outstanding public indebtedness within the annexation area at the time of annexation. Both Parties agree that there should not be any reimbursement for capital facility projects that have already been paid for by the citizens of the annexing area by means such as special taxes or assessments, traffic mitigation, or other attributable funding sources.

7.4 Continuation of latecomers cost recovery programs and other capital facility financing mechanisms. After annexation, the City agrees to continue administering any non-protest agreements, latecomer's assessment reimbursement programs established pursuant to Chapter 35.72 RCW, or other types of agreements or programs relating to future participation or cost-share reimbursement, in accordance with the terms of any agreement recorded with the Snohomish County Auditor relating to property within the Bothell MUGA. In addition to the recorded documents, the County will provide available files, maps, and other relevant information necessary to effectively administer these agreements or programs. If a fee is collected for administration of any of the programs or agreements described in this Subsection 7.4, the County agrees to transfer a proportionate share of the administration fee collected to the City, commensurate with the amount of work left to be completed on the agreement. The proportionate share will be based on the County's fee schedule.

8. ROADS AND TRANSPORTATION

8.1 Annexation of County road right-of-ways. Except for noncontiguous municipal purpose annexations under RCW 35.13.180 or 35A.14.300, the City agrees to propose annexation of the entire right-of-way of County roads adjacent to an annexation boundary. As used in Section 8 of this Agreement, "County road" means "County road" as defined in RCW 36.75.010(6). The City agrees to assume full ownership, legal control and

maintenance responsibility for County roads and associated drainage facilities within the annexed area upon the effective date of annexation, unless otherwise mutually agreed in writing.

8.2 Road maintenance responsibility. Where possible, the City agrees to annex continuous segments of County road to facilitate economical division of maintenance responsibility and avoid discontinuous patterns of alternating City and County road ownership. Where annexation of segments of County road are unavoidable, the City and County agree to consider a governmental services agreement providing for maintenance of the entire County road segment by the jurisdiction best able to provide maintenance services on an efficient and economical basis.

8.3 Traffic Mitigation and Capital Facilities

8.3.1 Reciprocal impact mitigation. The City and County have agreed to mutually enforce each other's traffic mitigation ordinances and policies to address multi-jurisdictional impacts under the terms and conditions provided in the *"Interlocal Agreement between Snohomish County and the City of Bothell on Reciprocal Mitigation of Transportation Impacts,"* which was effective on August 9, 2006. In addition to the agreement adopted on August 9, 2006 and referenced in this Subsection 8.3.1, the Parties may enter into another agreement that addresses implementation of common MUGA development standards (including access *and circulation requirements), level of service standards, concurrency management* systems, and other transportation planning issues.

8.3.2 Transfer of road impact fees. The County collects road impact fees pursuant to Chapter 30.66B of the Snohomish County Code. Where the annexation area includes system improvements for which road impact fees have been collected and which remain programmed for improvements, the County and City will negotiate transfers of all or a portion of these fees to the City to construct the improvements. Any issues relating to unbudgeted improvements for the annexation area shall be resolved prior to the transfer of any road impact fees. Road impact fees shall not be transferred to the City until maintenance and ownership responsibilities of road system improvements have been determined.

8.3.3 Reimbursement for transportation-related capital facilities investment. There will be no reimbursement from the City to the County for existing capital improvements. However, the County and the City may agree to develop separate agreements for cost sharing for new capital improvement projects.

8.4 Joint planning for transit-oriented development implementation. The City and County agree to cooperate on the development of transit-oriented

development regulations and transit supportive policies to implement County and City comprehensive planning policies.

8.5 Maintenance services. The City and County agree to evaluate whether an interlocal agreement addressing maintenance of roads, traffic signals, or other transportation facilities will be appropriate. Any County maintenance within an annexation area after the effective date of an annexation will be by separate service agreement negotiated between the City and County.

9. SURFACE WATER MANAGEMENT

9.1 Legal control and maintenance responsibilities. If an annexation area includes surface water management improvements or facilities (i) in which the County has an ownership interest, (ii) over or to which the County has one or more easements for access, inspection and/or maintenance purposes, and/or (iii) with respect to which the County has maintenance responsibilities, all such rights and responsibilities shall be transferred to the City by the end of the calendar year in which the annexation becomes effective, except as otherwise negotiated between the City and County in any subsequent agreements. The County agrees to provide a list of all such known surface water management improvements and facilities to the City prior to the start of negotiations. If the County's current Annual Construction Program or Surface Water Management Division budget includes major surface water projects in the area to be annexed, the City and County will determine how funding, construction, programmatic and subsequent operational responsibilities, legal control and responsibilities will be assigned for these improvements, and the timing thereof, under the provisions of RCW 36.89.050, RCW 36.89.120 and all other applicable authorities.

9.2 Taxes, fees, rates, charges and other monetary adjustments. The City recognizes that service charges are collected by the County for unincorporated areas within designated Watershed Management Areas. Watershed management service charges are collected at the beginning of each calendar year through real property tax statements. Upon the effective date of an annexation, the City hereby agrees that the County may continue to collect and, pursuant to Chapter 25.20 SCC and to the extent permitted by law, to apply the service charges collected during the calendar year in which the annexation occurs to the provision of watershed management services designated in that year's budget. These services, which do not include servicing of drainage systems in road rights-of-way, will be provided through the calendar year in which the annexation becomes effective and will be of the same general level and quality as those provided to other property owners subject to service charges in the County.

9.3 Compliance with NPDES Municipal Stormwater Permit. The parties acknowledge that upon the effective date of any annexation, the annexation area will become subject to the requirements of the City's Phase II NPDES Municipal Stormwater Permit, and will no longer be subject to the requirements of the County's Phase I NPDES Municipal Stormwater Permit. Notwithstanding the County's continued provision of stormwater management services in an annexation area pursuant to Subsection 9.2 above, the City expressly acknowledges, understands and agrees that from and after the effective date of any annexation (i) the City shall be solely responsible for ensuring the requirements of the City's NPDES Permit are met with respect to the annexation area, and (ii) any stormwater management services the County continues to provide in the annexation area pursuant to Section 9.2 above will not be designed or intended to ensure or guarantee compliance with the requirements of the City's Phase II NPDES Permit.

9.4 Access during remainder of calendar year in which annexation occurs. To ensure the County is able to promptly and efficiently perform surface water management services in the annexation area after the effective date of annexation, as described in Subsection 9.2 above, the City shall provide the County with reasonable access to all portions of the annexation area in which such services are to be performed. Reasonable access shall include, by way of example and not by way of limitation, the temporary closing to traffic of streets, or portions thereof, if such closing is reasonably necessary to perform the service at issue.

9.5 Government service agreements. The County and City intend to work toward one or more interlocal agreements for joint watershed management planning, capital construction, infrastructure management, habitat/river management, water quality management, outreach and volunteerism, and other related services.

10. SOLID WASTE MANAGEMENT

The City and County agree that solid waste management and disposal within an annexation area of the City shall be governed by the terms and conditions set forth in the "Agreement Between the City of Bothell and Snohomish County Concerning Solid Waste Management" dated JUNE 28, 2011.

11. PARKS, OPEN SPACE AND RECREATIONAL FACILITIES

11.1 Local or community parks. If an annexed area includes parks, open space or recreational facilities that are listed in the Snohomish County Comprehensive Parks and Recreation Plan as a local or community park,

the City agrees to assume maintenance, operation and ownership responsibilities for the facilities identified in the map attached to this Agreement as Exhibit D upon the effective date of annexation unless the Parties have adopted an agreement for an alternate mutually acceptable date. In addition, the City's maintenance, operation and ownership responsibilities may not apply when prior to annexation the County declares its intention to retain ownership of the park, open space or recreational facility pursuant to Subsection 11.2 of this Agreement.

11.2 County retention of ownership. The County, in its own discretion and after consulting with the City, will determine whether to retain ownership of a park, open space or recreational facility (collectively "facility") described in Subsection 11.1.1 of this Agreement based on consideration of the following criteria and consistent with the Snohomish County Comprehensive Parks and Recreation Plan:

- The facility has a special historic, environmental or cultural value to the citizens of Snohomish County, as determined by the Snohomish County Department of Parks and Recreation;
- There are efficiencies with the County's operation or maintenance of the facility;
- The County has made a substantial capital investment in the facility, including but not limited to the purchase of the facility property, the development of the facility, and the construction of the facility;
- There are specialized stewardship or maintenance issues associated with the facility that the County is best equipped to address;
- The facility generates revenue that is part of the larger County park operation budget;
- The facility serves as a regional park or is part of the County's trail system and should remain a part of the County's regional network; and
- Retaining ownership of the facility is consistent with the Snohomish County Tomorrow Annexation Principles.

11.3 Joint planning for parks, recreation and open space. The City and County may, upon the effective date of this Agreement, establish an interlocal agreement for parks, open space and recreational facilities. Such an interlocal agreement shall be based upon the City and County's efforts to provide parks, recreational facilities and open space within the Bothell MUGA and surrounding area. Any subsequently adopted agreement for park, open space, and recreational facilities shall be consistent with the joint planning efforts of the City and County under the Snohomish County Tomorrow Annexation Principles, establish the nature and type of facilities the jurisdictions have planned or anticipate for the area, identify ways to jointly provide these services, and identify transition of ownership and maintenance responsibilities as annexations occur. This effort will result in a mutual ongoing planning effort, joint capital improvement plans and reciprocal impact mitigation.

12. POLICE SERVICES

As provided by law, at the effective date of annexation police services responsibility will transfer to the City. However, the City and County may agree to discuss the need for developing a contract for police services in order to accommodate the needed transfer of police services within an annexed area and the unincorporated MUGA. Upon request of the City, the Snohomish County Sheriff's Office will provide detailed service and cost information for the area to be annexed. This request to the Sheriff's Office for detailed service and cost information for police contract services does not preclude the City from seeking additional service and cost information proposals for similar services from other governmental entities. Agreements between the City and County will be made consistent with RCW 41.14.250 through 41.14.280 and RCW 35.13.360 through 35.13.400. If the timing of the notification of the effective date for an annexation is such that SNOPAC 911 has already adopted its budget, the City is responsible for the SNOPAC 911 assessment to the Sheriff's Office for the remainder of the adopted SNOPAC 911 budget period.

13. CRIMINAL JUSTICE SERVICES

Criminal Justice System Services – All misdemeanor crimes that occur within an annexation area prior to the effective date of annexation will be considered misdemeanor crimes within the jurisdiction of Snohomish County for the purposes of determining financial responsibility for criminal justice system services, including but not limited to prosecution, court costs, jail fees and services, assigned counsel, jury and witness fees, and interpreter fees. On and after the effective date of any annexation, all misdemeanor crimes that occur in the annexation area will be considered crimes within the jurisdiction of the City for purposes of determining financial responsibility for such criminal justice system services.

14. FIRE MARSHAL SERVICES

14.1 County to complete certain annual fire inspections. The County agrees to process and complete only those fire inspections in an annexed area that were scheduled and occur before the effective date of the annexation. All other inspections will be conducted by the City.

14.2 County to complete certain fire code enforcement cases. The County will complete through final disposition any fire code enforcement cases within an annexation area pending at the effective date of an annexation, after review and consultation of the violation(s) by the City Fire Marshal or his/her designee. After final disposition, any further action or enforcement will be at the discretion of the City.

15. STATUS OF COUNTY EMPLOYEES

Subject to City civil service rules and state law, the City agrees to consider the hiring of County employees whose employment status is affected by the change in governance of an annexation area where such County employees make application with the City per the City hiring process and meet the minimum qualifications for employment with the City and provided further that the City consideration of hiring affected sheriff department employees shall be governed by the provisions set forth in RCW 35.13.360 through 35.13.400. The County shall in a timely manner provide the City with a list of those employees expressing a desire to be considered for employment with the City.

16. ADDENDA AND AMENDMENTS

16.1 Addenda related to annexation. At the discretion of the Parties, an addendum to this Agreement may be prepared for each annexation by the City to address any issues specific to a particular annexation.

16.2 Amendments. The City and County recognize that amendments to this Agreement may be necessary.

16.3 Process for addending or amending this Agreement. An addendum or amendment to this Agreement must be mutually agreed upon by the Parties and executed in writing. Any addendum or amendment to this Agreement shall be executed in the same manner as this Agreement.

16.4 Additional agreements. Nothing in this Agreement limits the Parties from entering into interlocal agreements on issues not covered by, or in lieu of, the terms of this Agreement.

17. THIRD PARTY BENEFICIARIES

There are no third party beneficiaries to this Agreement, and this Agreement shall not be interpreted to create any third party beneficiary rights.

18. DISPUTE RESOLUTION

Except as herein provided, no civil action with respect to any dispute, claim or controversy arising out of or relating to this Agreement may be commenced until the dispute, claim or controversy has been submitted to a mutually agreed upon mediator. The Parties agree that they will participate in the mediation in good faith, and that they will share equally in its costs. Each jurisdiction shall be responsible for the costs of its own legal representation. Either Party may seek equitable relief prior to the mediation process, but only to preserve the status quo pending the completion of that process. The City and County agree to mediate any disputes regarding the annexation process or responsibilities of the Parties.

prior to any Boundary Review Board hearing on a proposed annexation, if possible.

19. HONORING EXISTING AGREEMENTS, STANDARDS AND STUDIES

In the event a conflict exists between this Agreement and any agreement between the City and the County in existence prior to the effective date of this Agreement, the terms of this Agreement shall govern the conflict.

20. RELATIONSHIP TO EXISTING LAWS AND STATUTES

This Agreement in no way modifies or supersedes existing state laws and statutes. In meeting the commitments encompassed in this Agreement, all Parties will comply with all applicable state or local laws. The County and City retain the ultimate authority for land use and development decisions within their respective jurisdictions. By executing this Agreement, the County and City do not intend to abrogate the decision-making responsibility or police powers vested in them by law.

21. NONDISCRIMINATION

The City shall comply with the Snohomish County Human Rights Ordinance, Chapter 2.460 SCC, which is incorporated herein by this reference. Execution of this Agreement constitutes a certification by the City of the City's compliance with the requirements of Chapter 2.460 SCC. If the City is found to have violated this provision, or furnished false or misleading information in an investigation or proceeding conducted pursuant to Chapter 2.460 SCC, this Agreement may be subject to a declaration of default and termination at the County's discretion. This provision shall not affect the City's obligations under other federal, state, or local laws against discrimination.

22. EFFECTIVE DATE, DURATION AND TERMINATION

22.1 Effective Date. This Agreement shall become effective following the approval of the Agreement by the official action of the governing bodies of each of the Parties hereto and the signing of the Agreement by the duly authorized representative of each of the Parties hereto.

22.2 Duration. This Agreement shall be in full force and effect through December 31, 2029. If the Parties desire to continue the terms of the existing Agreement after the Agreement is set to expire, the Parties may either negotiate a new agreement or extend this Agreement through the amendment process.

22.3 Termination. Either Party may terminate this Agreement at the end of a calendar year provided the terminating Party provides not less than one

hundred eighty (180) days advance written notice to the other Party prior to the date of termination. Notwithstanding termination of this Agreement, the County and City are responsible for fulfilling any outstanding obligations under this Agreement incurred prior to the effective date of the termination.

23. INDEMNIFICATION AND LIABILITY

23.1 This Section shall govern the legal relationship of the Parties with regard to claims for damages and claims arising out of requests for mitigation.

23.2 Indemnification of County. The City shall protect, save harmless, indemnify and defend, at its own expense, the County, its elected and appointed officials, officers, employees and agents, from any loss or claim for damages of any nature whatsoever arising out of the City's performance of this Agreement, including claims by the City's employees or third parties, except for those damages caused solely by the negligence or willful misconduct of the County, its elected and appointed officials, officers, employees, or agents.

23.3 Indemnification of City. The County shall protect, save harmless, indemnify, and defend at its own expense, the City, its elected and appointed officials, officers, employees and agents from any loss or claim for damages of any nature whatsoever arising out of the County's performance of this Agreement, including claims by the County's employees or third parties, except for those damages caused solely by the negligence or willful misconduct of the City, its elected and appointed officials, officers, employees, or agents.

23.4 Extent of liability. In the event of liability for damages of any nature whatsoever arising out of the performance of this Agreement by the City and the County, including claims by the City's or the County's own officers, officials, employees, agents, volunteers, or third parties, caused by or resulting from the concurrent negligence of the County and the City, their officers, officials, employees and volunteers, each Party's liability hereunder shall be only to the extent of that Party's negligence.

23.5 Hold harmless. No liability shall be attached to the City or the County by reason of entering into this Agreement except as expressly provided herein. The City shall hold the County harmless and defend at its expense any legal challenges to the City's requested mitigation and/or failure by the City to comply with Chapter 82.02 RCW. The County shall hold the City harmless and defend at its expense any legal challenges to the County's requested mitigation or failure by the County to comply with Chapter 82.02 RCW.

24. SEVERABILITY

If any provision of this Agreement or its application to any person or circumstance is held invalid, the remainder of the provisions and the application of the provisions to other persons or circumstances shall not be affected.

25. EXERCISE OF RIGHTS OR REMEDIES

Failure of either Party to exercise any rights or remedies under this Agreement shall not be a waiver of any obligation by either Party and shall not prevent either Party from pursuing that right at any future time.

26. RECORDS

The Parties shall maintain adequate records to document obligations performed under this Agreement. The Parties shall have the right to review each other's records with regard to the subject matter of this Agreement, except for privileged documents, upon reasonable written notice. Public records will be retained and destroyed according to Subsection 6.5 of this Agreement.

27. ENTIRE AGREEMENT

This Agreement constitutes the entire Agreement between the Parties concerning annexation within the Bothell MUGA, except as set forth in Subsection 2.4 and Sections 10, 16 and 19 of this Agreement.

28. GOVERNING LAW AND STIPULATION OF VENUE

This Agreement shall be governed by the laws of the State of Washington. Any action hereunder must be brought in the Superior Court of Washington for Snohomish County.

29. CONTINGENCY

The obligations of the City and County in this Agreement are contingent on the availability of funds through legislative appropriation and allocation in accordance with law. In the event funding is withdrawn, reduced or limited in any way after the effective date of this Agreement, the City or County may terminate the Agreement under Subsection 22.3 of this Agreement, subject to renegotiation under those new funding limitations and conditions.

30. FILING

A copy of this Agreement shall be filed with the Bothell City Clerk and recorded with the Snohomish County Auditor's Office.

31. ADMINSTRATORS AND CONTACTS FOR AGREEMENT

The Administrators and contact persons for this Agreement are:

Bill Wiselogle, Comm. Dev. Dir.
City of Bothell
9654 NE 182nd Street
Bothell, WA 98011
(425)486-8152

Richard Craig, Senior Planner
Snohomish County
Dept. of Planning and Development Services
3000 Rockefeller Avenue
Everett, WA 98201
(425) 388-3311

IN WITNESS WHEREOF, the Parties have signed this Agreement, effective on the later date indicated below.

CITY OF BOTHELL

By _____
Robert S. Stowe, City Manager

Date 6/28/11

ATTEST:

_____
JoAnne Trudel
City Clerk

Approved as to form:

Office of the City Attorney

_____
Joseph N. Beck
Attorney for the City of Bothell

SNOHOMISH COUNTY

By _____
Aaron C. Reardon, County Executive

Date 6/21/11

GARY HAAKENSON
Deputy County Executive

ATTEST:

_____
Kathryn Bratcher
Clerk of the County Council

Approved as to form:

Snohomish County Prosecuting Attorney

_____
Deputy Prosecuting Attorney for
Snohomish County

COUNCIL USE ONLY
Approved: 6-15-11
Docfile: D-11

EXHIBIT A – BOTHELL MUNICIPAL URBAN GROWTH AREA MAP

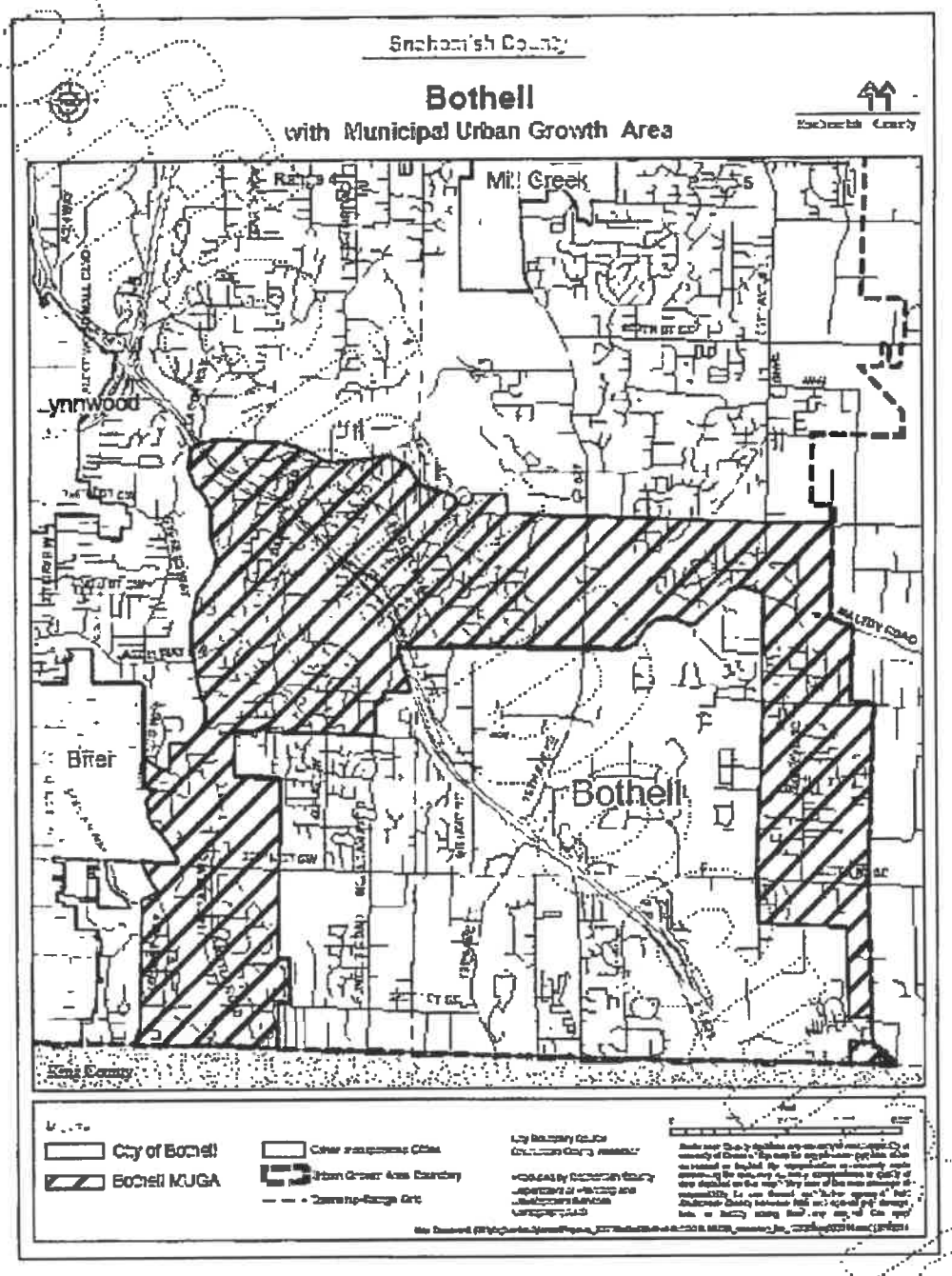


EXHIBIT B – SNOHOMISH COUNTY TOMORROW ANNEXATION PRINCIPLES

The following principles are intended as a "roadmap" for successful annexations but are not intended to require cities to annex all UGA lands. The desired outcome will reduce Snohomish County's current delivery of municipal services within the urban growth area while strengthening the County's regional planning and coordinating duties. Likewise, cities/towns will expand their municipal services to unincorporated lands scattered throughout the UGAs in Snohomish County. These principles propose altering historical funding and service delivery patterns. All parties recognize that compromises are necessary.

1. The county and all Snohomish County cities will utilize a six-year time schedule which will guide annexation goals. This work will be known as the Six Year Annexation Plan. As follow-up to the county's Municipal Urban Growth Area (MUGA) policies, those cities that have a (MUGA) land assignment, should designate this land assignment a priority. Each jurisdiction shall conduct its normal public process to ensure that citizens from both the MUGA areas and city proper are well informed. All Snohomish County cities have the option of opting in or out of this process. Cities that opt in will coordinate with the county to establish strategies for a smooth transition of services and revenues for the annexations proposed in the accepted Six Year Plan.

2. Each city will submit a written report regarding priority of potential annexation areas to the county council every two years, at which time each city will re-evaluate its time schedule for annexation. This report will serve as an update to the Six Year Annexation Plan.

   The report to the county council should be based upon each city's internal financial analyses dealing with the cost of those annexations identified for action within the immediate two-year time period. This analysis shall include: current and future infrastructure needs including, but not be limited to, arterial roads, surface water management, sewers, and bridges. A special emphasis should be given to the financing of arterial roads, including historical county funding and said roads' priority within the county's current 6-year road plan. Where financing and other considerations are not compelling, the city and county may "re-visit" the annexation strategies at the next two-year interval.

3. To facilitate annexation within urban growth areas (UGAs), the host city and the county may negotiate an Interlocal agreement providing for sub-area planning to guide the adoption of consistent zoning and development regulations between the county and the city. Coordination of zoning densities between the county and the host city may require the revision of

land use maps, adoption of transfer rights or other creative solutions. Upon completion of sub-area planning, if densities cannot be reconciled, then the issue would be directed to SCT for review and possible re-assignment to alternate sites within the UGA.

The Interlocal Agreement would also address development and permit review and related responsibilities within the UGA, apportioning related application fees based upon the review work performed by the respective parties, and any other related matters. The format for accomplishing permit reviews will be guided in part by each city's unique staffing resources as reflected in the Interlocal agreement between the host city and the county.

4. The city and the county will evaluate the financial and service impacts of an annexation to both entities, and will collaborate to resolve inequities between revenues and service provision. The city and county will negotiate on strategies to ensure that revenues and service requirements are balanced for both the city and the county. These revenue sharing and/or service provision strategies shall be determined by individual ILAs to address service operations and capital implementation strategies.

5. The county and the host city will negotiate with other special taxing districts on annexation related issues. Strategies for accomplishing these negotiations will be agreed to by the county and host city, and reflected in the host city's annexation report. (See preceding Principle #2.)

6. To implement the goals of the Annexation Principles regarding revenue sharing, service provision, and permit review transitions, the county and the cities will consider a variety of strategies and tools in developing Interlocal Agreements, including:

    - Inter-jurisdictional transfers of revenue, such as property taxes, Real Estate Excise Taxes (REET), storm drainage fees, sales tax on construction, and retail sales tax. Dedicated accounts may be opened for the deposit of funds by mutual agreement by the county and city;
    - Service provision agreements, such as contracting for service and/or phasing the transition of service from the county to the city;
    - Identifying priority infrastructure improvement areas to facilitate annexation of areas identified in Six Year Annexation Plans.

Unofficial Document

EXHIBIT C – SNOHOMISH COUNTY CODE ("SCC") PROVISIONS AND SNOHOMISH COUNTY ORDINANCES TO BE ADOPTED BY CITY

A. The following portions of SCC Title 13, entitled ROADS AND BRIDGES: Chapters 13.01, 13.02, 13.05, 13.10 through 13.70, 13.95, 13.110 and 13.130

B. SCC Title 25, entitled STORM AND SURFACE WATER MANAGEMENT

C. SCC Subtitle 30.2, entitled ZONING AND DEVELOPMENT STANDARDS

D. SCC Chapter 30.34A, entitled URBAN CENTER DEVELOPMENT

E. SCC Chapter 30.41A, entitled SUBDIVISIONS

F. SCC Chapter 30.41B, entitled SHORT SUBDIVISIONS

G. SCC Chapter 30.42B, entitled PLANNED RESIDENTIAL DEVELOPMENTS

H. SCC Chapter 30.41D, entitled BINDING SITE PLANS

I. SCC Chapter 30.44, entitled SHORELINE MANAGEMENT

J. SCC Chapter 30.51A, entitled DEVELOPMENT IN SEISMIC AREAS

K. SCC Chapter 30.52A, entitled BUILDING CODE

L. SCC Chapter 30.52B, entitled MECHANICAL CODE

M. SCC Chapter 30.52C, entitled VENTILATION AND INDOOR AIR QUALITY CODE

N. SCC Chapter 30.52D, entitled ENERGY CODE

O. SCC Chapter 30.52E, entitled UNIFORM PLUMBING CODE

P. SCC Chapter 30.52F, entitled RESIDENTIAL CODE

Q. SCC Chapter 30.52G, entitled AUTOMATIC SPRINKLER SYSTEMS

R. SCC Chapter 30.53A, entitled FIRE CODE

S. SCC Subtitle 30.6, entitled ENVIRONMENTAL STANDARDS AND MITIGATION

T. SCC Chapter 30.66A, entitled PARK AND RECREATION FACILITY IMPACT MITIGATION

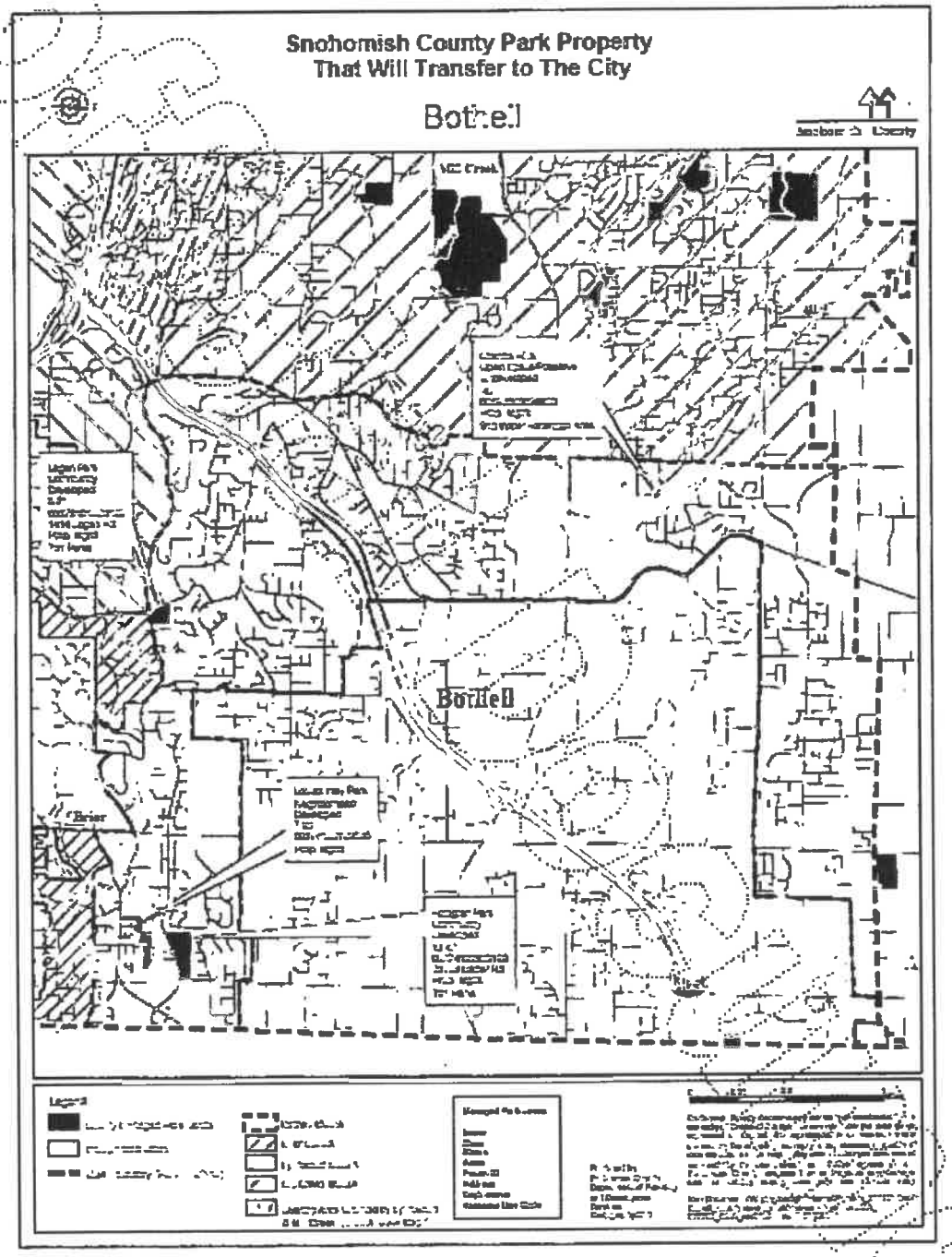
U. SCC Chapter 30.66B, entitled CONCURRENCY AND ROAD IMPACTMITIGATION

V. SCC Chapter 30.66C, entitled SCHOOL IMPACT MITIGATION

W. Ordinance 93-036, entitled SHORELINE MASTER PROGRAM, as amended

Unsigned Draft

EXHIBIT D – PARKS, OPEN SPACE AND RECREATIONAL FACILITIES



After Recording Return to:

Assistant Clerk
Snohomish County Council
3000 Rockefeller, M/S 609
Everett, WA 98201

CONFORMED COPY
201107080090 7 PGS
07/08/2011 9:41am $0.00
SNOHOMISH COUNTY, WASHINGTON

Agencies: Snohomish County and City of Bothell
Tax Account No.: N/A
Legal Description: N/A
Reference No. of Documents Affected: Interlocal Recorded at AF#_____
Filed with the Auditor pursuant to RCW 39.34.040
Documents Title:

AGREEMENT BETWEEN THE CITY OF BOTHELL AND SNOHOMISH COUNTY CONCERNING SOLID WASTE MANAGEMENT

PARTIES

This Agreement ("Agreement") is made by and between the City of Bothell ("City"), a Washington municipal corporation, and Snohomish County ("County"), a political subdivision of the State of Washington, collectively referred to as the "Parties," pursuant to RCW 35.21.152.

RECITALS.

RCW 35.21.152 provides, in part, that cities may designate disposal sites for Solid Waste collected within their boundaries:

> A city or town may enter into agreements with public or private parties to: (1) Construct, lease, purchase, acquire, manage, maintain, utilize, or operate publicly or privately owned or operated solid waste handling systems, plants, sites, or other facilities; (2) establish rates and charges for those systems, plants, sites, or other facilities; (3) designate particular publicly or privately owned or operated systems, plants, sites, or other facilities as disposal sites .... Any agreement entered into shall be for such term and under such conditions as may be determined by the legislative authority of the city or town.

This Agreement is undertaken pursuant to the authority of RCW 35.21.152.

1. PURPOSE/ APPLICABILITY

1.1 Purpose. The purpose of this Agreement is to establish and designate the Solid Waste authority for Solid Waste generated in the City.

1.2 Applicability.

1.2.1 The Solid Waste authority for those portions of the City located in both King and Snohomish Counties as the City's boundaries exist on January 1, 2011, and all areas of King County later annexed to the City, shall remain King County in accordance with the "Solid Waste Interlocal Agreement" between King County and the City of Bothell effective January 1, 1988.

1.2.2 The Solid Waste authority for all portions of the City located in Snohomish County that are annexed into the City after January 1, 2011 shall be Snohomish County.

2. DEFINITIONS

For the purposes of this Agreement, the following definitions apply:

2.1 "Comprehensive Solid Waste Management Plan" or "Comprehensive Plan" means the Snohomish County Comprehensive Solid Waste Management Plan issued in January 2004, and as amended from time to time.

2.2 "Person" means an individual, firm, association, partnership, political subdivision, government agency, municipality, industry, public or private corporation, or any other entity whatsoever.

2.3 "Solid Waste" means all putrescible and nonputrescible 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, with the exception of wastes listed in WAC 173-304-015 as may be amended from time to time.

2.4 "Solid Waste Handling" means the management, storage, collection, transportation, treatment, utilization, processing, and final disposal of Solid Wastes, including the recovery and recycling of materials from solid wastes, the recovery of energy resources from such wastes or the conversion of the energy in such wastes to more useful forms or combinations thereof, and as such term may be modified by amendments to RCW 70.95.030 (23).

2.5 "System" means all facilities for Solid Waste Handling owned or operated, or contracted for, by the County, and all administrative activities related thereto.

3. SOLID WASTE MANAGEMENT

3.1 Planning Authority. The County agrees to provide Solid Waste management services for solid waste generated and/or collected within the portion of the City described in Section 1.2.2. The provision of such services would commence at the time the first annexation to the City after January 1, 2011 has been approved. The County shall serve as the planning authority within such areas for Solid Waste including moderate risk waste but shall not be responsible for the planning of hazardous or

dangerous waste or any other planning responsibility that is specifically designated by State or Federal statute. The County shall develop waste stream forecasts as part of the comprehensive planning process and assumes all risks related to facility sizing based upon such forecasts. For the duration of this Agreement, the City shall participate in the Comprehensive Solid Waste Management Plan prepared and periodically reviewed and revised pursuant to chapter 70.95 RCW as may be amended from time to time. For the duration of this Agreement the City, in conformity with RCW 70.95.080 (3), as may be amended from time to time, authorizes the County to include in the Comprehensive Solid Waste Management Plan provisions for the management of Solid Waste generated within the portion of its corporate limits described in Section 1.2.2.

3.2 Disposal of Solid Waste. The County shall continue to provide for the efficient disposal of all Solid Waste generated within unincorporated areas of the County and within the portion of the City described in Section 1.2.2 of this Agreement, in the manner, and by facilities as described in the Comprehensive Solid Waste Management Plan. The County shall not be responsible for disposal of nor claim that this Agreement extends to Solid Waste that has been eliminated through waste recycling activities in conformity with the Comprehensive Solid Waste Management Plan.

3.3 Rates and Operations. The County shall be the operating authority for transfer, processing and disposal facilities for Solid Waste generated and/or collected within the portion of the City described in Section 1.2.2. The County shall provide support and technical assistance to the City in regards to educational materials related to waste reduction and recycling strategies. The City, an entity designated by the City or such other entity as is authorized by state law, shall serve as the operation authority for Solid Waste collection services provided within the City's corporate limits. In establishing or amending disposal rates for System users, the County may adopt, by motion, rates necessary to recover all costs of operation including the costs of handling, processing, disposal, defense and payment of claims, capital improvements, operational improvements and the closure of landfills which are or were operated by the County. The County shall establish classes of service for basic Solid Waste management services and by motion, establish rates for users of each class.

3.4 Flow Control. The City shall by ordinance designate the County System for the disposal of all Solid Waste including moderate risk waste generated and/or collected within the portion of the City described in Section 1.2.2. The City shall authorize the County to designate disposal sites for the disposal of all Solid Waste including moderate risk waste generated and/or collected within the portion of the City described in Section 1.2.2, except for Solid Waste which is eliminated through waste reduction or waste recycling activities consistent with the Comprehensive Solid Waste Management Plan. No Solid Waste generated or collected within the portion of the City described in Section 1.2.2 shall be diverted from the designated disposal sites without County approval. The designation of the County in this section shall not reduce or otherwise affect the City's control over Solid Waste collection as permitted by applicable state law.

3.5 Household Hazardous Waste. The County shall provide for the disposal of household hazardous wastes generated by residential households located in the portion of the City that is subject to this Agreement at the System's existing Moderate Risk Waste Facility, or in another reasonable and similarly convenient manner.

4. ENFORCEMENT

The County shall be primarily responsible for enforcement of laws and regulations requiring persons to dispose of Solid Waste at sites designated by the County. The City shall cooperate with the County in its enforcement efforts, and by ordinance shall provide that any person that disposes of Solid Waste generated within that portion of the City described in Section 1.2.2, at a site other than a site designated by the County, will be guilty of a misdemeanor, except where such disposal may be otherwise permitted by state law. To the extent legally possible, the County shall be responsible for bringing enforcement actions against persons violating state statutes or County ordinances relating to the disposal of Solid Waste at sites designated by the County. However, in instances in which the County lacks legal authority to bring an enforcement action, and the City possesses that authority, the County may request that the City bring such enforcement action. The City shall comply with any such request, or through the exercise of its authority under Chapter 35.21 RCW as may be amended from time to time, ensure that Solid Waste generated within that portion of the City described in Section 1.2.2, is disposed of at those sites designated by the County. The County shall pay as System costs all reasonable costs incurred by the City in taking such enforcement or other actions that are requested in writing by the County.

5. INDEMNIFICATION

5.1 The County shall indemnify and hold harmless and defend the City against any and all claims by third parties arising out of the County's operations of the System, and shall have the right to settle those claims by third parties, recognizing that all costs incurred by the County thereby are System costs which must be satisfied from disposal rates. In providing a defense for the City, the County shall exercise good faith in that defense or settlement so as to protect the City's interests. The County's agreement to indemnify the City for any and all claims arising out of the County's operation of the System extends to all claims caused by the actions of officers or agents of the County, including but not limited to actions which constitute misfeasance, or intentional misconduct or wrongdoing, even if the cost of such claims is held by a court of competent jurisdiction to not be a proper cost to the System. For the purpose of this paragraph, "claims arising out of the County's operations" shall include claims arising out of the ownership, control or maintenance of the System, but shall not include claims arising out of the collection of solid waste within the City prior to its delivery to a disposal site designated by the County or other activities under the control of the City.

5.2 If the County acts to defend the City against a claim, the City shall cooperate with the County.

5.3 The County shall defend the City against any challenge, whether judicially or before an administrative hearings panel, to the Comprehensive Plan elements adopted pursuant to this Agreement.

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

6. DURATION

This Agreement shall continue to be in full force and effect until December 31, 2057, unless terminated as described in the following paragraph.

7. REVISION, AMENDMENT, SUPPLEMENTATION OR TERMINATION

This Agreement shall be reviewed by the parties in conjunction with any review of the Comprehensive Solid Waste Management Plan. The terms of the Agreement may be revised, amended or supplemented, or the Agreement as a whole may be terminated only upon the written agreement of the parties executed with the same formalities as the original. No revision, amendment, supplementation or termination shall be adopted or put into effect if it impairs any contractual obligation of the County.

8. PRIOR AGREEMENT SUPERCEDED This Agreement entirely supercedes and replaces the "Interlocal Agreement Between Snohomish County and the City of Bothell to Address Disposal of Bothell's Solid Waste" dated October 28, 1992.

9. NONDISCRIMINATION The City shall comply with the Snohomish County Human Rights Ordinance, Chapter 2.460 SCC, which is incorporated herein by this reference. Execution of this Interlocal Agreement constitutes a certification by the City of the City's compliance with the requirements of Chapter 2.460 SCC. If the City is found to have violated this provision, or furnished false or misleading information in an investigation or proceeding conducted pursuant to Chapter 2.460 SCC, this Interlocal Agreement may be subject to a declaration of default and termination at Snohomish County's discretion. This provision shall not affect the City's obligations under other federal, state, or local laws against discrimination.

10. SEVERABILITY

If any provision of this Agreement or its application to any person or circumstance is held invalid, the remainder of the provisions and the application of the provisions to other persons or circumstances shall not be affected.

11. EXERCISE OF RIGHTS OR REMEDIES

Failure of either party to exercise any rights or remedies under this Agreement shall not

be a waiver of any obligation by either party and shall not prevent either party from pursuing that right at any future time.

12. RECORDS

The Parties shall maintain adequate records to document obligations performed under this Agreement. The Parties shall have the right to review each other's records with regard to the subject matter of this Agreement, except for privileged documents, upon reasonable written notice. The parties shall retain and destroy all public records pursuant to this Agreement in a manner consistent with the applicable provisions of Chapter 40.14 RCW and the applicable rules and regulations of the Secretary of State, Division of Archives and Records Management.

13. NO THIRD PARTY BENEFICIARIES

This Agreement is not entered into with the intent that it shall benefit any person or entity not signing this Agreement, and no other person or entity shall be entitled to be treated as a third party beneficiary of this Agreement.

14. ENTIRE AGREEMENT

This Agreement constitutes the entire Agreement between the Parties. Any written or verbal agreements that are not set forth herein or incorporated herein by reference are expressly excluded.

15. GOVERNING LAW AND STIPULATION OF VENUE

This Agreement shall be governed by the laws of the State of Washington. Any action hereunder must be brought in the Superior Court of Washington for Snohomish County.

16. FILING

A copy of this Agreement shall be filed with the Bothell City Clerk and recorded with the Snohomish County Auditor's Office.

17. ADMINSTRATORS AND CONTACTS FOR AGREEMENT

The Administrators and contact persons for this Agreement are:

Bill Wiselogle, Comm. Dev. Dir.
City of Bothell
9654 NE 182nd Street
Bothell, WA 98011

Matt Zybas, Solid Waste Dir.
Snohomish County
Dept. of Public Works
3000 Rockefeller Avenue
Everett, WA 98201

IN WITNESS WHEREOF, the parties have signed this Agreement, effective on the later date indicated below.

CITY OF BOTHELL

By _____
Robert S. Stowe, City Manager

Date 6/28/11

ATTEST:

_____
JoAnne Trudel
City Clerk

Approved as to form:

Office of the City Attorney

_____
Joseph N. Beck
Attorney for the City of Bothell

SNOHOMISH COUNTY

By _____
for: Aaron G. Reardon, County Executive

Date 6/2/11

GARY HAAKENSON
Deputy County Executive

ATTEST:

_____
Kathryn Bratcher
Clerk of the County Council

Approved as to form:

Snohomish County Prosecuting Attorney

_____ 5/13/11
Deputy Prosecuting Attorney for
Snohomish County

COUNCIL USE ONLY
Approved: 6-15-11
Docfile: D-13

SNOHOMISH COUNTY COUNCIL
SNOHOMISH COUNTY, WASHINGTON

ORDINANCE 11 - 035

RELATING TO SOLID WASTE MANAGEMENT;
APPROVING AND AUTHORIZING THE COUNTY EXECUTIVE
TO EXECUTE THE AGREEMENT BETWEEN SNOHOMISH COUNTY
AND THE CITY OF BOTHELL REGARDING DISPOSAL OF SOLID WASTE
GENERATED IN AREAS ANNEXED BY THE CITY OF BOTHELL
AFTER JANUARY 1, 2011

WHEREAS, the Snohomish County Solid Waste Division currently provides solid waste planning and management services to unincorporated portions of Bothell's Municipal Urban Growth Area (MUGA); and

WHEREAS, Snohomish County and The City of Bothell desire to maintain Snohomish County's authority for the planning and management of solid waste services for this geographic area; and

WHEREAS, The City of Bothell is a signatory to the King County Solid Waste Management Plan and has an interlocal agreement with King County for the planning and management of solid waste generated within the incorporated boundaries of Bothell; and

WHEREAS, King County has agreed that any future annexations by the City of Bothell of Snohomish County lands occurring after January 1, 2011 should fall within the jurisdiction of Snohomish County for purposes of solid waste planning and management, including designation of disposal sites for solid waste generated in these areas ; and

WHEREAS, the Council believes that health and safety and the best interests of the citizens of Snohomish County would be served by maintaining the current boundaries for solid waste management and disposal, as they currently exist, in Snohomish County;

NOW, THEREFORE, BE IT ORDAINED:

Section 1. The Snohomish County Council hereby approves and authorizes the County Executive to sign the interlocal agreement titled "Agreement Between The City of Bothell and Snohomish County Concerning Solid Waste Management" substantially in the form of Exhibit A attached hereto.

PASSED this 15th day of June, 2011

SNOHOMISH COUNTY COUNCIL
Snohomish County, Washington

Chairperson

ATTEST:

Clerk of the Council

(✓) APPROVED

( ) EMERGENCY

( ) VETOED

DATE: 6/20/11

for: County Executive

GARY HAAKENSON
Deputy County Executive

ATTEST:

Approved as to form only:

5/9/11
Deputy Prosecuting Attorney

D.13

ORDINANCE 11 - 035
RELATING TO SOLID WASTE MANAGEMENT;
APPROVING AND AUTHORIZING THE COUNTY EXECUTIVE
TO EXECUTE THE AGREEMENT BETWEEN SNOHOMISH COUNTY
AND THE CITY OF BOTHELL REGARDING DISPOSAL OF SOLID WASTE, ETC.

Return to:
County Council, gm
M/S 609

201108040007 4 PGS
08/04/2011 8:53am $0.00
SNOHOMISH COUNTY, WASHINGTON

Please print neatly or type information:

Document Title(s)

Interlocal Agreement w/ King County

Reference Number(s) of related documents:

Additional Reference #'s on page _____

Grantor(s) (Last, First, and Middle Initial)

King County

Additional Grantors on page _____

Grantee(s) (Last, First, and Middle Initial)

Snohomish County.

Additional Grantees on page _____

Legal Description (abbreviated form: i.e. lot, block, plat or section, township, range, quarter/quarter)

n/a

Complete legal on page _____

Assessor's Property Tax Parcel/Account Number

n/a

Additional parcel #'s on page _____

The Auditor/Recorder will rely on the information provided on this form. The responsibility for the accuracy of the indexing information is that of the document preparer.

*I am requesting an emergency nonstandard recording for an additional fee as provided in RCW 36.18.010. I understand that the recording processing requirements may cover up or otherwise obscure some part of the text of the original document.

Signature of Requesting Party

Exhibit A

INTERLOCAL AGREEMENT BETWEEN KING COUNTY AND SNOHOMISH COUNTY RELATED TO SOLID WASTE DISPOSAL

THIS INTERLOCAL AGREEMENT ("Interlocal Agreement") BETWEEN KING COUNTY ("King County") AND SNOHOMISH COUNTY ("Snohomish County") RELATED TO SOLID WASTE DISPOSAL is entered into on this 22nd day of July, 2011. Collectively, King County and Snohomish County are referred to as the "Parties."

1. Recitals.

1.1 King County and the City of Bothell entered into the Solid Waste Interlocal Agreement ("Agreement") with an effective date of January 1, 1988, to establish the parties' rights and responsibilities with respect to disposal of solid waste generated and/or collected within the corporate limits of the City.

1.2 The City of Bothell wishes to amend the Agreement to allow solid waste generated in areas of Snohomish County annexed to the City after January 1, 2011 to be disposed through the Snohomish County solid waste system, and King County has indicated a willingness to consider such an amendment on certain terms and conditions.

2. Agreement.

2.1 The Parties agree that Snohomish County may require through an agreement with the City of Bothell that solid waste generated or collected within areas of Snohomish County that are annexed to the corporate limits of the City of Bothell after January 1, 2011, be disposed through the Snohomish County solid waste system throughout the term of this Interlocal Agreement.

2.2 The Parties agree that the Agreement requires that solid waste generated or collected within all other portions of the corporate limits of the City of Bothell (either within or outside King County) be disposed of through the King County Solid Waste system throughout the term of the Agreement, as it may be extended from time to time.

2.3 This Interlocal Agreement does not create any cause of action or other rights in the Parties in any way related to any agreement between the City of Bothell and King County or between the City of Bothell and Snohomish County that addresses disposal of solid waste generated or collected within the corporate limits of the City.

3. Effective Date.

This Interlocal Agreement shall become effective when all of the following have occurred: 1) the Parties have duly authorized and executed this Interlocal Agreement, 2) this Interlocal Agreement has been filed and recorded as provided in Paragraph 9, and 3) King County and Bothell have duly authorized and executed AMENDMENT NO. 1 TO THE SOLID WASTE INTERLOCAL AGREEMENT ("AGREEMENT") BETWEEN KING COUNTY AND THE CITY OF BOTHELL as attached to King County Proposed Ordinance 2011-0248.

4. Duration/Term.

This Interlocal Agreement shall continue to be in full force and effect through December 31, 2057 unless terminated earlier by mutual written agreement of the Parties.

5. Revision, Amendment or Supplementation.

The terms of this Interlocal Agreement may be revised, amended or supplemented only by written agreement of the Parties. Any revision, amendment or supplement shall be approved with the same formalities as the original. No revision, amendment or supplementation shall be adopted or put into effect if it impairs any contractual right or obligation of either King County or Snohomish County.

6. Nondiscrimination.

King County shall comply with the Snohomish County Human Rights Ordinance, Chapter 2.460 SCC, which is incorporated herein by this reference. Execution of this Interlocal Agreement constitutes a certification by King County of King County's compliance with the requirements of Chapter 2.460 SCC. If King County is found to have violated this provision, or furnished false or misleading information in an investigation or proceeding conducted pursuant to Chapter 2.460 SCC, this Interlocal Agreement may be subject to a declaration of default and termination at Snohomish County's discretion. This provision shall not affect King County's obligations under other federal, state, or local laws against discrimination.

7. No Separate Legal Or Administrative Agency/Administration/Handling Of Property.

7.1 No separate legal or administrative agency is created by this Interlocal Agreement.

7.2 No personal or real property will be jointly acquired to carry out the terms of this Interlocal Agreement.

7.3 Administration of this Interlocal Agreement shall be by the following county representatives:

King County Solid Waste Division
Director
201 South Jackson Street
Suite 701
Seattle, WA 98104

Snohomish County Solid Waste Division
Director
M/S 607
3000 Rockefeller Ave.
Everett, WA 98201

8. No Third Party Beneficiaries.

No other person or entity shall be entitled to be treated as a third party beneficiary of this Interlocal Agreement.

9. Filing.

A copy of this Interlocal Agreement shall be filed and recorded with the Snohomish County Auditor's Office and with the King County Records and Licensing Services Division.

IN WITNESS WHEREOF, the Parties have executed this Interlocal Agreement on the dates indicated.

King County

King County Executive

Date: 7/22/2011

Approved as to Form:

Deputy Prosecuting Attorney

Snohomish County

for Snohomish County Executive

Date: 6/20/11

GARY HAAKENSON
Deputy County Executive

Approved as to Form:

6/13/11

Deputy Prosecuting Attorney

COUNCIL USE ONLY
Approved: 6-15-11
Docfile: D-12

City of Bothell
CITY CLERK'S
ORIGINAL

AMENDMENT NO. 1 TO THE SOLID WASTE INTERLOCAL AGREEMENT ("AGREEMENT") BETWEEN KING COUNTY AND THE CITY OF BOTHELL

Whereas, King County ("County") and the City of Bothell ("City") entered into an Agreement with an effective date of January 1, 1988, to establish the parties' rights and responsibilities with respect to disposal of solid waste generated and/or collected within the corporate limits of the City; and

Whereas, the Agreement provides that the City shall authorize the County to designate disposal sites for the disposal of all solid waste, including moderate risk waste generated or collected within the corporate limits of the City, except for solid waste which is eliminated through waste reduction or waste recycling activities consistent with the King County Comprehensive Solid Waste Management Plan; and

Whereas, the Agreement further provides that no solid waste generated or collected within the City may be diverted from the designated disposal sites without County approval; and

Whereas, King County has designated facilities comprising the King County solid waste system for the disposal of solid waste generated and/or collected within the City; and

Whereas, effective April 30, 1992, the City annexed certain territory located in Snohomish County known as the "Canyon Park Area;" and

Whereas, to address the contractual obligation between the City and the County, the City entered into an agreement with Snohomish County dated October 28, 1992 providing that all solid waste generated in the City, including the Canyon Park Area, would be disposed of in the King County system; and

Whereas, the City is contemplating the annexation of additional territory in Snohomish County; and

Whereas, the City wishes to amend the Agreement with the County to allow solid waste generated in areas of Snohomish County annexed to the City after January 1, 2011 to be disposed through the Snohomish County solid waste system, and the County is willing to agree to such an amendment in exchange for an extension in the term of the Agreement; and

Whereas, the parties wish to amend the Agreement to the extent provided below.

Now therefore, the parties agree to the following amendments:

Section III. DURATION

The Agreement shall remain in effect through December 31, 2057.

Section VI. GENERAL OBLIGATION OF PARTIES

A new paragraph 6.1.h shall be added to read:

This Agreement shall not be construed to impose any contractual obligations on the County related to solid waste that the City disposes of through the Snohomish County solid waste system.

A new paragraph 6.2.c shall be added to read:

Notwithstanding paragraph 6.2b., the City may dispose of solid waste collected in areas of Snohomish County that are annexed to the City after January 1, 2011 through the Snohomish County solid waste system and may authorize Snohomish County to designate disposal sites for such solid waste; solid waste generated or collected within all other portions of the corporate limits of the City (either within or outside King County) shall be disposed through the King County solid waste system throughout the term of the Agreement at sites designated by King County.

VIII. LIABILITY

A new section 8.7 shall be added to read:

The City shall indemnify and hold harmless the County and shall have the right and duty to defend the County through the City's attorneys against any and all claims arising out of the City's disposal of solid waste through the Snohomish County solid waste system. In providing such defense of the County, the City shall exercise good faith in such defense or settlement so as to protect the County's interest.

A new section 8.8 shall be added to read:

In the event the County incurs attorney fees and/or costs to enforce the provisions of this Agreement due to the City's actions or failure to act, including, without limitation, provisions related to the City's obligations to cause the delivery of solid waste to County-designated disposal sites during the term of the Agreement, such attorney fees and costs shall be recoverable from the City in the event that the County prevails in a court of competent jurisdiction and/or the City is found to be at fault by a court of competent jurisdiction.

All other terms and conditions provided in the Agreement shall continue in effect throughout the duration of the Agreement. In the future, the parties may mutually agree to enter into an agreement to replace the Agreement, provided however, that the term of the new agreement shall be at least as long as the term of the Agreement as extended in this amendment.

CITY OF BOTHELL

~~Mayor~~ Deputy City Manager

Date: 6/30/11

KING COUNTY

King County Executive

Date: 7/22/2011

APPROVED AS TO FORM:

City Attorney

APPROVED AS TO FORM:

Deputy Prosecuting Attorney

CONTAMINATION REDUCTION AND OUTREACH PLAN

SUMMARY

This appendix addresses the new State requirement for solid waste plans to contain a Contamination Reduction and Outreach Plan (CROP Plan). This CROP Plan provides more information on this requirement and on the statewide plan developed by the Department of Ecology (Ecology). As part of the statewide plan, Ecology also provided a template that could be used by counties to develop their own CROP plan. This plan, the Snohomish County CROP Plan, is based largely on the template provided by Ecology. This plan describes a seven-step process that will be conducted over a three-year period (2021-2023) to gather more information about current contamination levels in recycling programs and develop strategies to reduce that contamination.

INTRODUCTION

In 2019, the State legislature adopted a new requirement for counties to include a Contamination Reduction and Outreach Plan (CROP Plan) in their solid waste plans. This requirement applies to counties over 25,000 in population, and also to the cities in those counties who have independent solid waste plans. Ecology was required to develop a statewide CROP Plan first, after which counties had three options:

- Develop their own CROP Plan.
- Adopt the statewide CROP Plan.
- Adopt a modified version of the statewide CROP Plan.

Snohomish County has chosen to use the third option by adopting a modified version of the template provided in the State CROP Plan (i.e., this document), which is intended to meet the requirements of RCW 70A.205.045 (10). More details on what is required to be in a CROP Plan and what is in the State CROP Plan are provided below.

Requirements for CROP Plans

The requirements shown in State law for CROP plans can be found in RCW 70A.205.045 (for the county's responsibilities) and in RCW 70A.205.070 (for Ecology's responsibilities). The requirements for local CROP plans are shown in Section 10 of RCW 70A.205.045 (this is the RCW that also lists the other required contents for solid waste management plans):

"Each county and city comprehensive solid waste management plan shall include the following:

(10) A contamination reduction and outreach plan. The contamination reduction and outreach plan must address reducing contamination in recycling. Except for counties with a population of twenty-five thousand or fewer, by July 1,

2021, a contamination reduction and outreach plan must be included in each solid waste management plan by a plan amendment or included when revising or updating a solid waste management plan developed under this chapter. Jurisdictions may adopt the state's contamination reduction and outreach plan as developed under RCW 70A.205.070 in lieu of creating their own plan. A recycling contamination reduction and outreach plan must include the following:

(a) A list of actions for reducing contamination in recycling programs for single-family and multiple-family residences, commercial locations, and drop boxes depending on the jurisdictions system components;

(b) A list of key contaminants identified by the jurisdiction or identified by the department;

(c) A discussion of problem contaminants and the contaminants' impact on the collection system;

(d) An analysis of the costs and other impacts associated with contaminants to the recycling system; and

(e) An implementation schedule and details of how outreach is to be conducted. Contamination reduction education methods may include sharing community-wide messaging through newsletters, articles, mailers, social media, web sites, or community events, informing recycling drop box customers about contamination, and improving signage."

The requirements for Ecology to prepare a State CROP Plan, as shown in RCW 70A.205.070, are:

"(4)(a) The department must create and implement a statewide recycling contamination reduction and outreach plan based on best management practices for recycling, developed with stakeholder input by July 1, 2020. Jurisdictions may use the statewide plan in lieu of developing their own plan.

(b) The department must provide technical assistance and create guidance to help local jurisdictions determine the extent of contamination in their regional recycling and to develop contamination reduction and outreach plans. Contamination means any material not included on the local jurisdiction's acceptance list.

(c) Contamination reduction education methods may include sharing community-wide messaging through newsletters, articles, mailers, social media, web sites, or community events, informing recycling drop box customers about contamination, and improving signage.

(d) The department must cite the sources of information that it relied upon, including any peer-reviewed science, in the development of the best management practices for recycling under (a) of this subsection and the guidance developed under (b) of this subsection."

The State CROP Plan

The Washington State Recycling Contamination Reduction and Outreach Plan (the "State CROP Plan") was released on October 2, 2020. This plan contains:

- a description of the current situation,
- a statewide action plan,
- a template for local CROP plans,
- a description of best management practices for contamination reduction, and
- a list of additional resources.

The recommendations included in the statewide action plan are:

1. Promote alignment and harmonization of recycling programs statewide:
   - Support the Recycling Steering Committee, the Recycling Development Center, and other groups working to develop more aligned and harmonized regional and statewide recycling programs.
   - Promote the use of a priority list of materials accepted for recycling statewide.
   - Enhance existing resources to support communities to make better informed decisions on what to accept in their recycling programs. This includes recycling market data and data on the environmental and social costs and benefits of recycling specific materials.
   - Expand and continue to support successful statewide contamination reduction campaigns like Recycle Right.
2. Encourage and support regional solid waste planning and aligned or joint contracting for services:
   - Enhance and maintain Material Recovery Facility (MRF)-shed and MSW flow maps, and other resources to assist in identifying opportunities for regional collaboration.
   - Convene regional meetings to explore joint planning and program development opportunities.
   - Share MRF processing and collection contracting resources to assist local governments in their efforts to reduce recycling contamination and improve the overall performance of their recycling programs.
3. Gather and share data to measure the performance of the recycling system:
   - Conduct recycling characterization studies to gather data on recycling contamination and other key metrics like the capture rate for recyclables. These studies should be done on the same schedule as Ecology's waste characterization studies. In the future, these studies could be expanded to include organics and other streams.
   - Develop and maintain an easily accessible and searchable database on local recycling programs across the state.
4. Pursue legislative, funding, and policy solutions:
   - Work to secure increased state and federal funding for local government solid waste programs, including restoring funding for the Local Solid Waste Financial Assistance program.

- Forge new and enhance existing public, private, and non-profit partnerships to support local recycling contamination reduction programs.
- Evaluate Extended Product Responsibility, product labeling, product bans and restrictions, right to repair, market development, recycled-content, and other targeted legislative and policy options to assist in achieving recycling contamination reduction goals and strengthen our recycling system.

The State CROP Plan is not required to include an implementation schedule as to when these actions would be conducted or completed, although it does note that some of these items (such as extending the Recycle Right campaign and conducting recycling characterization studies) are on hold until funding becomes available.

SNOHOMISH COUNTY CROP PLAN

The goal of the CROP is to reduce contamination of the materials collected in Snohomish County's single-family, multi-family, drop box, and commercial recycling programs. This will help Snohomish County more fully realize the economic, environmental, social, and public health benefits of these programs. The Snohomish County CROP Plan consists of the following seven steps.

Step 1: Data collection for current recycling collection services and programs

Much of the information needed for this CROP Plan is shown in other parts of the *Snohomish County Solid and Hazardous Waste Management Plan*, but some additional information should be gathered for the CROP Plan. Snohomish County will gather the following additional information:

- Types of materials accepted for recycling for each type of program (single-family, multi-family, drop box, and commercial) and how this list compares to the list of designated recyclable materials (see Table 5 in the Recycling Tech Memo).
- Cart or container colors for single-family, multi-family, and commercial programs.
- Destination for recyclables collected (which MRF is used for each program, or which market is used for source-separated materials).
- Information shown on local government and recycling collector websites.
- Stickers and signs on recycling containers for curbside, commercial and drop box services.

Snohomish County will identify differences or inconsistencies in the information provided to residents and businesses about what to recycle and how it should be prepared for collection. Snohomish County will use this data to identify opportunities for more consistent and aligned programs. The data will also be used to help determine what specific contamination reduction strategies to implement.

Step 2: Prioritizing the recycling programs to focus on first

In reviewing current information about programs, including suspected contamination

levels, Snohomish County has determined that the following factors should be considered in setting priorities for this CROP Plan:

- **Single-family**: curbside recycling programs for single-family homes contribute over half of the total tonnage for the types of recyclable materials that are addressed by this CROP Plan (see Table 1). Information from various studies indicates that contamination of these recyclables has been increasing over the past decade. Taken together, these factors make this source a very high priority for contamination reduction efforts.
- **Multi-family**: many recycling collection programs for multi-family units suffer from high contamination rates, but this source only contributes about 7% of the recyclable materials collected in Snohomish County. This is also a very difficult source to improve, as repeated efforts over the years have demonstrated. This source is being given the lowest priority in this CROP Plan to allow Snohomish County an opportunity to focus instead on more productive activities in the near term.
- **Drop box**: there are a few drop-off sites operated by private and non-profit organizations, but the bulk of the recyclable materials in this category are collected at the county-operated transfer stations and rural drop box sites (see the Transfer or the Recycling Technical Memorandums for more details). These programs are source-separated, which allows for a different set of possibilities in addressing contamination at these sites. This source is being given a medium priority.
- **Commercial**: based on the tonnages and other factors for this source, it rates as the second-highest priority for this CROP Plan.

As the lowest priority program, multi-family will not be addressed any further here but will possibly be addressed in the next version of this CROP Plan.

Table 1. Recycling Tonnages by Source

Source	Annual Tons (2019)	Percent of Total
Haulers:		
Single-Family (curbside)	48,001	56.0%
Multi-Family	6,139	7.2%
Commercial	22,391	26.1%
Subtotal, Haulers	76,531	89.2%
County-Operated Sites ("curbside" materials only)	9,228	10.8%
Total	85,759	

Sources: The above figures are from Table 3 of the Recycling Tech Memo and Table 1 of the Transfer Tech Memo. The figure for county-operated sites (9,228 tons) does not include yard debris and wood.

Step 3: Define data collection methods

Snohomish County will work with the haulers and other stakeholders to determine data collection methods for contamination in the single-family, drop box and commercial recycling collection programs.

Data collection methods may include, but are not limited to:

- Recycling stream composition studies
- Survey of transfer stations and MRF operators
- Tracking contamination using on-board truck or container-mounted cameras
- Drop box composition studies or visual audits
- Container lid-lift audits for residential, multi-family and commercial accounts

Step 4: Gather baseline contamination data

Baseline levels and types of recycling contamination will be determined using methods described above. This information will be used to identify the most problematic and costly contaminants, and then that information will be used to refine outreach materials and assist with other strategies targeting the most problematic materials. It will also be used to assess the economic and other benefits of removing problematic materials from the recycling stream.

In recent surveys, such as the one conducted by The Recycling Partnership in 2019, MRFs and cities in Washington 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

These contaminants 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.
- Cause serious injuries to collection and processing facility staff.

According to TRP, 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, etc.

Step 5: Develop and implement education and outreach strategies to reduce contamination

Snohomish County, in coordination with the haulers and other stakeholders, will develop and implement education and outreach strategies based on best practices. This will start with addressing any inconsistencies in recycling information and messaging identified in Step 1. All new outreach materials and messages will be aligned and consistent across all platforms.

Depending on the type of recycling program, outreach and education strategies may include, but are not limited to:

- Discuss with haulers moving toward uniformity in commingled cart lid colors such as blue for recycling, gray or black for garbage, and green for organics.
- Visual, easy-to-understand signage using photos and universal pictures and symbols.
- Cart-tagging and cart rejection.
- On-route monitoring tools, including apps and cameras.
- Pairing right-sized recycling and trash bins.
- On-site assistance and outreach at drop-off sites.
- Up-to-date, and easy-to-find and access websites with clear, consistent messaging.
- Social media posts, campaigns, mailings, brochures, and other communications.
- Online apps for residents and businesses to get answers to their recycling questions.
- Community presentations, tabling, and activities at community events.
- School presentations and activities focused on recycling right.
- Translation of educational materials and campaigns to ensure recycling information is clearly understood by all audiences.
- Social marketing campaigns to effectively promote long-term behavior change.

Where possible, free and customizable resources will be utilized, including Ecology's Recycle Right campaign materials and The Recycling Partnership's Anti-Contamination Kit.

Step 6: Evaluate the effectiveness of anti-contamination strategies

Snohomish County will conduct periodic assessments on the effectiveness of recycling contamination reduction programs and strategies, and will share the results with the SWAC, other key stakeholders and the public. These assessments will use, at least in part, the same methodology used in Step 4 to establish baseline contamination levels.

This assessment will inform Snohomish County about what is working and what adjustments are needed to make for better results.

Step 7: Explore contamination reduction strategies beyond education and outreach

As part of a statewide effort, Snohomish County will work with community partners to explore strategies and solutions beyond education and outreach. These could address regional planning, operations and collection, contracting, incentives, pricing, policies, mandates, enhanced data collection, etc. Based on this evaluation, Snohomish County will identify and pursue the most promising initiatives.

During this process, Snohomish County will also work with key stakeholders to identify and secure new and/or allocate existing funding, and forge partnerships with agencies and organizations to provide technical and financial assistance.

An initial 3-year implementation schedule for the Snohomish County CROP Plan is shown below. As Snohomish County clarifies and defines the scope of work, and identifies the resources to complete the work, a more detailed and refined implementation plan, schedule and budget will be developed.

CROP Implementation Schedule

Year 1 (2021)

Step 1: Data collection for current recycling collection services and programs
Step 2: Prioritizing the recycling programs to focus on first
Step 3: Define data collection methods

Year 2 (2022)

Step 4: Gather baseline contamination data
Step 5: Develop and implement education and outreach strategies to reduce contamination

Year 3 (2023)

Step 6: Evaluate the effectiveness of anti-contamination strategies
Step 7: Explore contamination reduction strategies beyond education and outreach

This CROP Plan will be updated with the next update of the *Snohomish County Solid and Hazardous Waste Management Plan*, and may be more fully integrated into the solid waste plan at that point.

Appendix I

RESOLUTIONS OF ADOPTION

Resolutions of adoption will be added after the Preliminary Draft has been reviewed, revised and then adopted by the cities and Snohomish County.

DRAFT

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