



CITY OF
BAINBRIDGE ISLAND

**CITY COUNCIL STUDY SESSION
TUESDAY, JULY 18, 2023**

COUNCIL CHAMBERS
280 MADISON AVENUE NORTH
BAINBRIDGE ISLAND, WA

AND

ZOOM WEBINAR

PLEASE CLICK THE LINK BELOW TO JOIN THE WEBINAR:
[HTTPS://BAINBRIDGEWA.ZOOM.US/J/92947338351](https://bainbridgewa.zoom.us/j/92947338351)
OR TELEPHONE: US: +1 253 215 8782
WEBINAR ID: 929 4733 8351

AGENDA

1. **CALL TO ORDER / ROLL CALL - 6:00 PM**
2. **APPROVAL OF AGENDA / CONFLICT OF INTEREST DISCLOSURE - 6:05 PM**
3. **REGULAR BUSINESS**
 - 3.A **(6:10 PM) Initial Review of the Waste Management Study**, 30 Minutes
[COBI Solid Waste Exploratory Evaluation_Final Report_060723.pdf](#)
[Solid Waste Opportunities and Constraints Matrix.pdf](#)
 - 3.B **(6:40 PM) Review Results of Fehr & Peers Project Measuring Greenhouse Gas Emissions Associated with Sustainable Transportation Plan Actions**, 30 Minutes
[Presentation for Fehr and Peers at City Council Meeting 07.18.23.pptx](#)
4. **COMMITTEE REPORTS - 7:10 PM**
5. **ADJOURNMENT - 7:20 PM**

GUIDING PRINCIPLES

Guiding Principle #1 - Preserve the special character of the Island, which includes downtown Winslow's small town atmosphere and function, historic buildings, extensive forested areas, meadows, farms, marine views and

access, and scenic and winding roads supporting all forms of transportation.

Guiding Principle #2 - Manage the water resources of the Island to protect, restore and maintain their ecological and hydrological functions and to ensure clean and sufficient groundwater for future generations.

Guiding Principle #3 - Foster diversity with a holistic approach to meeting the needs of the Island and the human needs of its residents consistent with the stewardship of our finite environmental resources.

Guiding Principle #4 - Consider the costs and benefits to Island residents and property owners in making land use decisions.

Guiding Principle #5 - The use of land on the Island should be based on the principle that the Island's environmental resources are finite and must be maintained at a sustainable level.

Guiding Principle #6 - Nurture Bainbridge Island as a sustainable community by meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Guiding Principle #7 - Reduce greenhouse gas emissions and increase the Island's climate resilience.

Guiding Principle #8 - Support the Island's Guiding Principles and Policies through the City's organizational and operating budget decisions.



City Council meetings are wheelchair accessible. Assisted listening devices are available in Council Chambers. If you require additional ADA accommodations, please contact the City Clerk's Office at 206-780-8604 or cityclerk@bainbridgewa.gov by noon on the day preceding the meeting.



CITY OF
BAINBRIDGE ISLAND

City Council Study Session Agenda Bill

MEETING DATE: July 18, 2023

ESTIMATED TIME: 30 Minutes

AGENDA ITEM: (6:10 PM) Initial Review of the Waste Management Study,

SUMMARY: In August 2022, the city contracted with Tetra Tech to assist the City in evaluating the Solid Waste Management System by conducting an initial study to review the existing solid waste management system; identify options and criteria for evaluation, evaluate collection management options, and review diversion programs and facility options.

Staff and the consultant (Tetra Tech) will provide an overview of the Exploratory Evaluation.

AGENDA CATEGORY: Review and Recommendation

PROPOSED BY: Public Works

RECOMMENDED MOTION: No action required.

COMMUNITY ENGAGEMENT AND OUTREACH: Community engagement will be planned as part of the next steps in the evaluation process.

FISCAL IMPACT:

Amount:	N/A
Ongoing Cost:	N/A
One-Time Cost:	N/A
Included in Current Budget?	No

BACKGROUND: The City of Bainbridge Island is served by a private solid waste company Bainbridge Disposal. Bainbridge Disposal provides voluntary subscription garbage service, including recycling and yard-service. Bainbridge Disposal is regulated by the Washington Utilities and Transportation Commission (WUTC), which approves service levels and rates. The City of Bainbridge Island does not approve rates, service levels of service, or the means or methods of service delivery. Bainbridge Disposal operates in compliance with Kitsap County Solid and Hazardous Waste Management System (SHWMP) developed by the Solid Waste Advisory Committee (SWAC).

City staff and the consultant (Tetra Tech) will provide an overview of the recently completed Solid Waste Evaluation (see attached). The discussion will focus on the data collected as part of the evaluation, as well as considerations for next steps, including the potential for a waste characterization study and the benefits of developing a waste management contract. The City Council will be asked to consider the question of what

goals it wants to achieve related to the management of solid waste and whether these goals are more or less achievable with the city exercising greater control over the solid waste system.

ATTACHMENTS:

[COBI Solid Waste Exploratory Evaluation Final Report 060723.pdf](#)

[Solid Waste Opportunities and Constraints Matrix.pdf](#)

FISCAL DETAILS: The contracted amount is \$91,290.

Fund Name(s):

Coding: N/A

EXPLORATORY EVALUATION OF WASTE MANAGEMENT SYSTEM



Prepared for:

City of Bainbridge Island
Public Works Department



June 2023

Prepared by:



TABLE OF CONTENTS

1.0	INTRODUCTION	4
1.1	City Goals and Objectives	4
1.1.1	Reduction of Greenhouse Gases	4
1.1.2	Organics Waste Management	5
1.1.3	Compliance with Kitsap County Solid and Hazardous Waste Management Plan (SHWMP)	5
2.0	EXISTING SOLID WASTE MANAGEMENT SYSTEM	6
2.1	Existing Solid Waste Management Programs	6
2.1.1	Single-Family Waste Collection	6
2.1.2	Commercial and Multi-Family Waste Collection	7
2.1.3	Self-Haul Services	8
2.1.4	City Ordinances	8
2.1.5	Community Organizations	8
2.2	Existing Solid Waste Management Infrastructure	8
2.2.1	Bainbridge Disposal (BD) Transfer Station	8
2.2.2	Olympic View Transfer Station (OVTS)	11
2.2.3	WM JMK Fibers (Recyclables)	12
2.2.4	Olympic Organics LLC (Organics)	13
2.2.5	North Mason Fiber (Organics)	14
2.2.6	Columbia Ridge Landfill and Green Energy Plant	15
3.0	POTENTIAL RESOURCE RECOVERY/DIVERSION OPTIONS	17
3.1	Programs	17
3.1.1	Reduction, Reuse and Recycling Programs	17
3.1.2	Organics Diversion Programs	18
3.1.3	Construction and Demolition Waste Programs/Options	19
3.1.4	Promotion and Education Programs	19
3.1.5	Policies and Measurement	20
3.2	Associated Facilities	21
4.0	COLLECTION MANAGEMENT OPTIONS	22
4.1	Collection Management Options Descriptions	22
4.1.1	Status Quo – WUTC Rate-Setting and Regulation	22
4.1.2	Provide City-Owned and -Operated Collection Services and Billings	22
4.1.3	Contract Collection Service with City Rate Setting Control	23
4.1.4	Contract Collection Service with WUTC Control Over Rates and Billing Process	23
5.0	EXPLORATORY EVALUATION CRITERIA	24
5.1	Environmental	24
5.2	Financial	24
5.3	Social and Equity Considerations	24
5.4	Regulatory Compliance and Planning Goals	25
5.5	Level of Service	25

6.0	SOLID WASTE MANAGEMENT OPTIONS EVALUATION	26
6.1	Resource Recovery/Diversion Options	26
6.1.1	Regulatory	26
6.1.2	Programmatic	27
6.2	Collection Management Options	29
6.3	Options Evaluation	30
6.3.1	Resource Recovery/Diversion Options	30
6.3.2	Collection Management Options	33
7.0	FINDINGS AND NEXT STEPS	39
7.1	Summary of Findings and Next Steps.....	39
7.2	Keys to Success.....	42

TABLES

Table 2-1: Summary of Waste Streams Collected from Single-Family Customers.....	7
Table 2-2: Summary of Waste Streams Collected from Multi-Family Customers (Tons).....	7
Table 2-3: Summary of Waste Streams Collected from Commercial Customers (Tons).....	7
Table 7-1: Identified Regulatory, Collection and Programmatic Options for Improving Solid Waste Management	41

FIGURES

Figure 1. Bainbridge Disposal Transfer Station	9
Figure 2. Bainbridge Disposal Transfer Station Entrance, Recycling Area, and Recycling Bins	10
Figure 3. BD Transfer Station HHW Collection	10
Figure 4. Olympic View Transfer Station (OVTS)	11
Figure 5. WM JMK Fibers	12
Figure 6 Olympic Organics, Bremerton Facility	13
Figure 7. Olympic Organics, Kingston Facility	14
Figure 8. North Mason Fiber (Organic)	15
Figure 9. Columbia Ridge Landfill.....	16

MAPS

Map 1: Solid Waste Management System Evaluation – Existing Facilities

ATTACHMENTS

Attachment 1: HB 1799 Summary List of Requirements
Attachment 2: Bainbridge Disposal Transfer Station List of Materials Accepted
Attachment 3: Existing Solid Waste Management Infrastructure Fact Sheets
Attachment 4: Evaluation Matrix

1.0 INTRODUCTION

The City of Bainbridge Island (City), Public Works Department (PWD) has contracted with the Tetra Tech Team to assist the City in evaluating their Solid Waste Management System by conducting an initial Study to review the existing solid waste management system (Task 1); identify options and criteria for evaluation (Task 2); evaluate collection management options, diversion program options and facilities (Task 3); and culminate with an opportunities and constraints findings matrix and summary (Task 4).

This memorandum provides a summary and updated overview of the current solid waste management system in the City (from the Study Task 1 memorandum) including key goals and objectives, existing resource reduction and recovery programs, and associated facilities and identifies potential options for: resource reduction and recovery programs, solid waste management infrastructure, collection management options, and evaluation criteria (from the Study Task 2 memorandum) to conduct an opportunities and constraints analysis presented herein. Input from City staff was provided on options that should be evaluated and the evaluation criteria proposed herein. Section 7 provides findings of the opportunities and constraints analysis for the City's solid waste management system based on the evaluation criteria as well as next steps for the City.

1.1 City Goals and Objectives

The City has established several goals and objectives that need to be taken into consideration when defining and evaluating solid waste management programs and collection management options. These are briefly described below, noting specific state- or federal-level mandates or regulations and time frames for compliance. It should be noted that a key State regulatory requirement for organics diversion (HB1799) specifies a minimum 25,000 population for compliance purposes. Since the City's population was 24,456 in 2021, it is assumed that the City needs to comply with the regulations. More detailed information on Washington state, Kitsap County and City policies and regulations affecting solid waste management for the City is included in the Task 1 memorandum for this Study.

1.1.1 Reduction of Greenhouse Gases

The 2020 Bainbridge Island Climate Action Plan (CAP) identifies solid waste as a significant opportunity to reduce greenhouse gas emissions in the City. This is due to the transport and landfilling of waste and the generation of methane as organic waste decomposes. It is also due to the additional greenhouse gases generated in the manufacture and disposal of packaging materials. The City has established a goal to reduce greenhouse gas emissions by 90 percent of 2014 levels by 2045 with interim goals in 2025 and 2035. The ability to reduce greenhouse gas emissions in its solid waste management systems will be affected by the level of control the City is able to exert over these systems.

The City has begun to take steps to reduce greenhouse gas emissions in the management of its waste streams. In June 2021, the City Council passed Ordinance 2021-18 which only allows single-use food service products to be provided when a customer asks or confirms they would like to use them. In November 2021, City Council adopted Ordinance No. 2021-34 to reduce plastic waste from food service and lodging businesses. Both ordinances were passed in support of a priority action in the CAP to reduce single-use plastics to protect the marine environment and reduce greenhouse gas emissions. Starting in 2022, single-use food service products were only to be provided when a customer asks or confirms they would like to use them.

Starting in 2023, retail food and lodging establishments have new requirements to reduce plastic waste associated with onsite dining, to-go food orders, and packaging for personal care products. The 2023 regulations require that disposal food service ware be “home compostable”. The CAP includes specific targets to reduce waste-related emissions, with goals to reduce residential, commercial, and industrial waste generation; increase diversion of waste from the landfill; and optimize collection and disposal systems to minimize GHG emissions. It should be noted that an assessment of processing facility capabilities should be undertaken to ensure acceptance requirements are met for home compostables in the organics curbside collection cart.

1.1.2 Organics Waste Management

A primary focus of the City’s organics management activities is compliance with the 2022 Organics Management Law, HB1799 (2022 OML). The state-wide 2022 OML sets forth new standards for reducing organic waste disposal and increasing the volume of edible food recovery. These include requiring certain jurisdictions to provide curbside organics collection service, allowing for the siting of compost management facilities in development regulations, and adopting compost procurement ordinances. Under the law, the City may be required to adopt compost procurement ordinances and report purchases to the Department of Ecology in 2024. Organics collection requirements for businesses begin phasing in on January 1, 2024 depending on organic waste generation and for residential customers effective January 1, 2027. See Attachment 1 for a summary list of HB 1799 requirements and timing.

1.1.3 Compliance with Kitsap County Solid and Hazardous Waste Management Plan (SHWMP)

Under [RCW 70A.205.040](#), each county within the state of Washington, in cooperation with the various cities located within the county, must prepare a comprehensive solid waste management plan (SWMP). Each city shall:

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

The 2018 Kitsap County Solid and Hazardous Waste Management Plan (SHWMP) provides a framework for partnership and cooperation with neighboring cities to optimize collection and processing and provide a higher level of solid waste management service. The SHWMP identifies regulatory, policy, programmatic, and contractual strategies as effective ways for local governments to enhance waste prevention and diversion. Appendix C of the SHWMP includes an Agreement between Kitsap County and the City of Bainbridge which directs Kitsap County to develop long-range solid and hazardous waste plans on its behalf and designates Kitsap County as the lead agency for the revision of the comprehensive solid waste management plan.

Conformance with the SHWMP is a key goal of the City’s solid waste management activities. A specific requirement is to take steps to reduce recycling contamination, requiring both hauler and resident education and outreach. The ability to reduce contamination of recyclables will be affected by the level of control the City exerts over these systems.

2.0 EXISTING SOLID WASTE MANAGEMENT SYSTEM

This section discusses the collection services, programs and infrastructure supporting the solid waste management system in the City. Section 2.1 describes the collection services provided by the solid waste hauler, Bainbridge Disposal (BD). Solid waste services are not mandated throughout the City – solid waste services are provided on a subscription basis, offering residents garbage and recycling collection as a base-level service, and yard-waste collection as an added service. BD also provides waste collection services to multi-family and commercial customers for collection of garbage, recycling, and construction and demolition waste, and self-haul services for garbage, recyclables, yard waste, household hazardous waste and construction and demolition waste. Sections 2.1.4 and 2.1.5 summarize City ordinances and community organizations that also support waste reduction and recycling in the City through regulations and program initiatives.

2.1 Existing Solid Waste Management Programs

2.1.1 Single-Family Waste Collection

BD provides curbside waste collection services to single family customers on a subscription basis. Residents contract with BD directly and the City does not influence or control that agreement. The hauler is regulated by the Washington Utility and Transportation Commission (WUTC) who sets rates and the service area for BD in the City.

BD provides garbage and recycling as a baseline service. Garbage is collected weekly, and recyclables are collected every other week. Recyclables are collected using a comingled approach. Yard waste collection is an additional service that is offered and is collected every other week. According to BD, food waste is allowed to be put in the yard waste bin and roughly 55% of single-family customers have yard waste collection.

Containers are provided by the hauler and delivered directly to the customers (e.g., yard waste is collected from a BD provided 96-gallon container). BD retains ownership of all the containers distributed, and replacements due to normal use or container damage caused by collection service is the responsibility of BD.

According to waste collection data provided by BD, they collect from approximately 90% of single-family and multi-family households in the City. In 2022, BD reported an average of 7,522 single-family customers (high of 7,660 customers in Q3 and low of 7,410 in Q1). The customers who do not use the collection service are typically the single-family residents that self-haul their waste to the Bainbridge Disposal Transfer Station (described in Section 2.2.1 below). Table 2-1 provides a summary of the average number of single-family customers and amount of waste streams collected for 2020 to 2022 based on data provided by BD.

Table 2-1: Summary of Waste Streams Collected from Single-Family Customers

	2020	2021	2022	3-Year Average
Number of SF Customers ³	6,836	7,031	7,522	7,130
Garbage ¹ (tons)	5,796	5,780	5,672	5,749
Recycling (tons)	2,783	2,572	2,523	2,630
Organics ² (tons)	3,210	3,359	2,946	3,172

1. Adjusted tonnage since data provided on garbage collected includes materials from multi-family and commercial customers. Garbage from single-family sources was estimated to be 70% of materials collected per BD.
2. Food and Yard Waste
3. Average number of monthly customers over the course of the year.

2.1.2 Commercial and Multi-Family Waste Collection

Multi-family and commercial customers contract directly with BD. These customers are provided a 2 cubic yard bin which is typically collected once per week. Some commercial customers have collection service that is more than once per week. Table 2-2 and Table 2-3 summarizes the number of customers and waste streams collected for 2020, 2021 and 2022.

Table 2-2: Summary of Waste Streams Collected from Multi-Family Customers (Tons)

	2020	2021	2022	3-Year Average
Number of MF Units	1670	1662	1657	1663
Garbage ¹ (tons)	828	825.7	810.3	821
Recycling (tons)	204	251	227	228
Organics ² (tons)	n/a	n/a	n/a	

1. Adjusted tonnage since garbage collected includes materials from multi-family and commercial customers. Garbage from multi-family sources was estimated to be 10% of materials collected per BD.

Table 2-3: Summary of Waste Streams Collected from Commercial Customers (Tons)

	2020	2021	2022	3-Year Average
Number of Commercial Customers	441	465	465	457
Garbage ¹ (tons)	1656	1651	1621	1643
Recycling (tons)	262	234	274	257
Cardboard (tons)	375	463	250	263
Organics ² (tons)	n/a	n/a	n/a	

1. Adjusted tonnage since garbage collected includes materials from multi-family and commercial customers. Garbage from commercial sources was estimated to be 20% of materials collected.

2.1.3 Self-Haul Services

Residents and businesses can bring their waste streams to the Bainbridge Disposal Transfer Station for a fee. It is believed that most of the customers who do not have collection services self-haul their waste to the transfer station. Details of the transfer station are discussed in Section 2.2.1. The number of customers that visit the facility or the amount of waste and divertible materials received were not provided by BD due to commercial confidentiality reasons. Bainbridge Transfer Station is a separate corporation from Bainbridge Disposal.

2.1.4 City Ordinances

The City has existing solid waste management programs in the form of regulations implemented in the City, including Ordinances 2012-06 known as the “plastic bag ban” prohibiting retailers from distributing plastic carry out bags and instead requiring recyclable paper bags at a fee; Ordinance 2019-03, mandating retailers to increase fees for the purchase of a paper bag from 5 cents to 8 cents; Ordinance 2021-18, mandating single-use food service products to only be provided upon customer request; and Ordinance 2021-34, mandating the reduction of plastic waste from food services and lodging businesses.

2.1.5 Community Organizations

The City has numerous community organizations promoting best practices for waste and recycling through initiatives of environmental stewardship, including Sustainable Bainbridge, a non-profit organization coordinating programs such as Bainbridge Island Zero Waste (BIZW) and ReFashion Bainbridge – both programs work to reduce waste generation and increase diversion through respective initiatives. Other community established programs include, the Green Team of the Bainbridge Island School District, Buy Nothing Bainbridge, and Bainbridge Island Rotary Auction and Rummage Sale – all of which are locally established community groups sharing the goal of reducing waste and promoting zero waste efforts in the City. More information on each community organization is provided in Section 3.1.1 Programs of this memorandum.

2.2 Existing Solid Waste Management Infrastructure

The City’s solid waste is collected and received at the BD Transfer Station on the island, then transported for processing at additional facilities identified below: Olympic View Transfer Station (OVTS) receives the City’s municipal solid waste (MSW) which is then transported by truck and rail to Columbia Ridge Landfill in Arlington, Oregon, North Mason Fiber and/or Olympic Organics LLC – receives the City’s organic waste, and Waste Management JMK – receives the City’s recyclable materials. See Map 1 attached for an illustrative view of the facilities listed above.

2.2.1 Bainbridge Disposal (BD) Transfer Station

The Bainbridge Disposal Transfer Station (BD TS) is not owned or operated by the City. Solid waste that is collected by BD is taken to their Transfer Station where it is consolidated and then transported to OVTS before it is taken by truck and rail for landfilling in Oregon. The BD TS is located at 7215 NE, Vincent Road (see Figures 1 and 2, and Map 1). Self-haulers can take residential garbage, recyclables, and yard waste to BD TS. Materials accepted at this facility include:

- Appliances
- Batteries: Household & automotive
- Used Books
- Compact Light Bulbs (not tubes)
- Sharps
- Residential Garbage

- Recyclables
- Yard Waste
- Wood Waste
- Electronics: TV's, computers, and monitors
- Scrap Metal
- Oil and Antifreeze

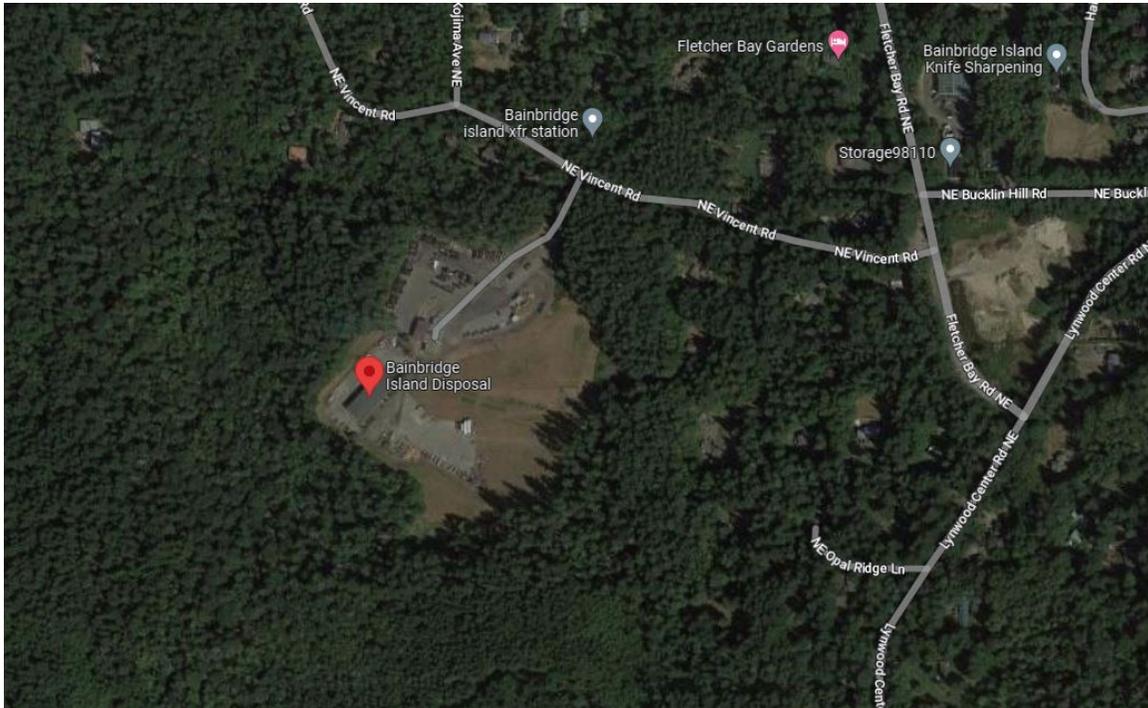


Figure 1. Bainbridge Disposal Transfer Station



Figure 2. Bainbridge Disposal Transfer Station Entrance, Recycling Area, and Recycling Bins

BD TS brochures for their facility are included in Attachment 2 with material they accept.

2.2.1.1 Household Hazardous Waste Collection

Currently the BD Transfer Station collects sharps, e-waste, universal waste, motor oil and anti-freeze as listed in Section 2.2.1 (see Figure 3).



Figure 3. BD Transfer Station HHW Collection

Kitsap County also has a Household Hazardous Waste Collection Facility located at 5551 SW Imperial Way, Bremerton near the OVTS. The facility accepts household hazardous waste Thursday through Saturday from 10 a.m. to 4 p.m., except holidays. Kitsap County also holds a household hazardous waste (HHW) collection event in the City, once every two years.

Household Hazardous Waste Collection Centers (HHWCCs) provide the community a place to discard waste not accepted at landfills. Household hazardous waste is any hazardous waste generated incidental to owning or maintaining a residence, vehicle, or yard. Waste examples include: solvents, varnishes, acids, flammables, acrylics, resins, and motor oil among others.

Electronic waste, or e-waste, includes household or office electronic devices in working or non-working condition that are no longer used. E-waste is known to contain heavy metals such as mercury and lead, which if placed in the landfill, can harm people and the environment. Universal waste includes consumer batteries, light bulbs, light tubes and mercury containing items.

2.2.2 Olympic View Transfer Station (OVTS)

Waste Management of Washington, Inc. (WMW) operates the OVTS under the Transfer Station Development and Waste Disposal Project Agreement (the Agreement) KC-350-21 with Kitsap County Department of Public Works (KCPW). The OVTS is located at 9380 SW Barney White Road, Bremerton, WA 98312 (See Figure 4 and Map 1) and accepts residential, commercial, and industrial solid waste and recyclable materials, with a posted tipping fee of \$118 per ton of garbage/solid waste. BD currently transfers solid waste and commercial generated organic waste from the Bainbridge Transfer Station to OVTS where it is then transported by rail to Columbia Ridge Landfill and Green Energy Plant in Arlington, Oregon for disposal.

A Fact Sheet for the OVTS is included in Attachment 3. The OVTS method of processing, Tonnages, and Permit information are currently unavailable (a data request has been made to Kitsap County).

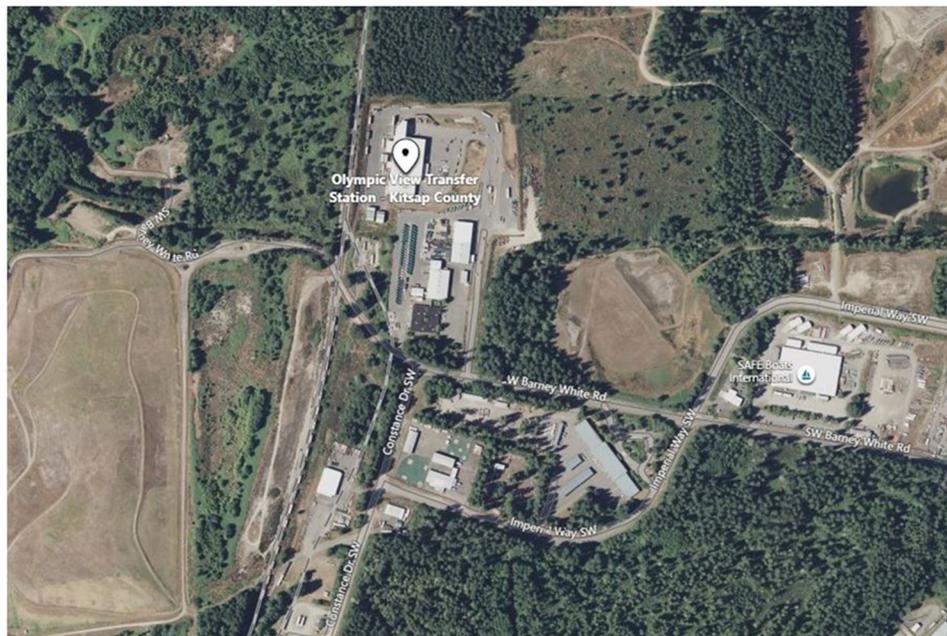


Figure 4. Olympic View Transfer Station (OVTS)

2.2.3 WM JMK Fibers (Recyclables)

BD currently transports its recyclables to JMK Fibers from its BD TS facility. JMK Fibers is a WM facility which sorts and processes single stream recyclables at their materials recovery facility (MRF) collected from King County, Kitsap County, Pierce County and several northwest states with access to domestic and international markets. JMK is positioned to serve domestic markets via long-haul trucks, rail, and barge capabilities. JMK Fibers is located at 1440 Port of Tacoma Road, Tacoma, WA 98421 (See Figure 5 and Map 1) and accepts aluminum, colored and natural HDPE bottles, mixed paper, glass, corrugated containers (OCC), other plastics per contracts, polyethylene (PET) bottles, and tin.

A Fact Sheet for the JMK Fibers facility is included in Attachment 3. Tonnages, and Permit information are currently unavailable.

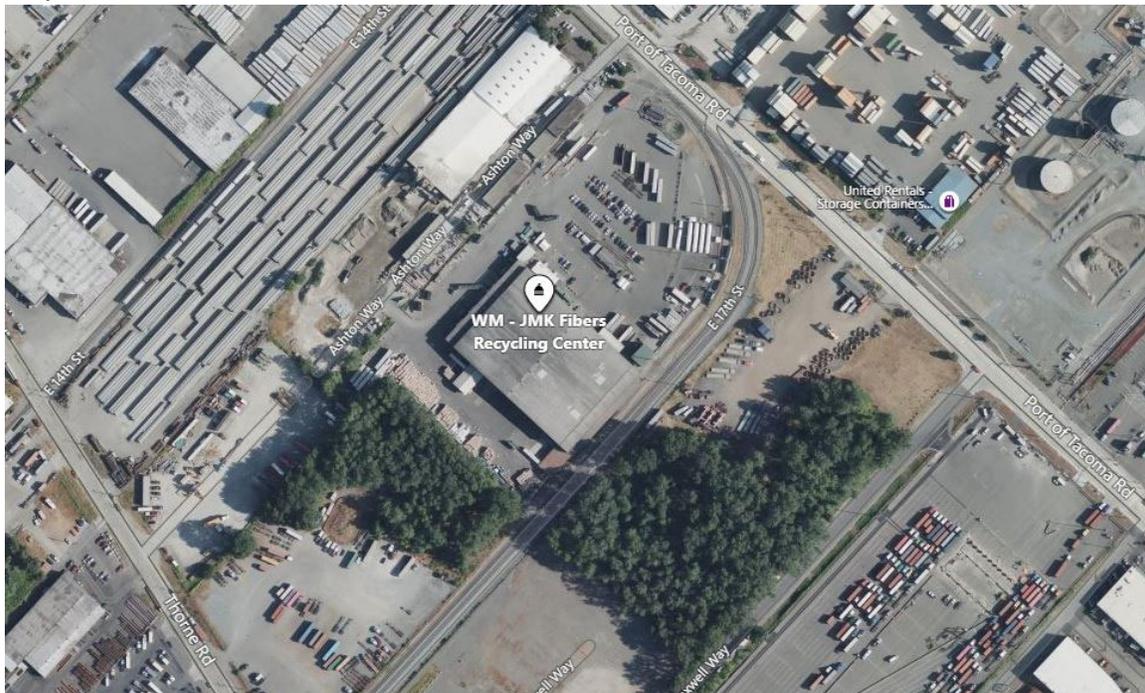


Figure 5. WM JMK Fibers

2.2.4 Olympic Organics LLC (Organics)

Olympic Organics LLC – a partner of DTG Recycle, is an organics processing facility which sells compost and topsoil permitted by WAC 173-350-225, a solid waste handling permit specific to compost facilities. According to 2021-2022 State data identified by the Department of Ecology, Olympic Organics reported 24,859.71 tons of facility feedstock. Olympic Organics has two existing facilities, the Bremerton facility located at 6068 State HWY 303 NE Bremerton, WA 98311 and Kingston facility located at 7890 NE Ecology Rd Kingston, WA 98346 (See Figures 6 and 7 and Map 1). Both facilities accept yard waste (grass, weeds, brush), mixed soil disposal, sod with no mesh backing, and manure and lumber exclusive to the Kingston facility only. Food waste is not listed as an accepted material on the facility website, although the facility has self-reported data indicating post-consumer food waste is processed at the facility, currently receiving Bainbridge Disposal’s organic food waste generated by commercial generators.

A Fact Sheet for the Olympic Organics LLC facility is included in Attachment 3.

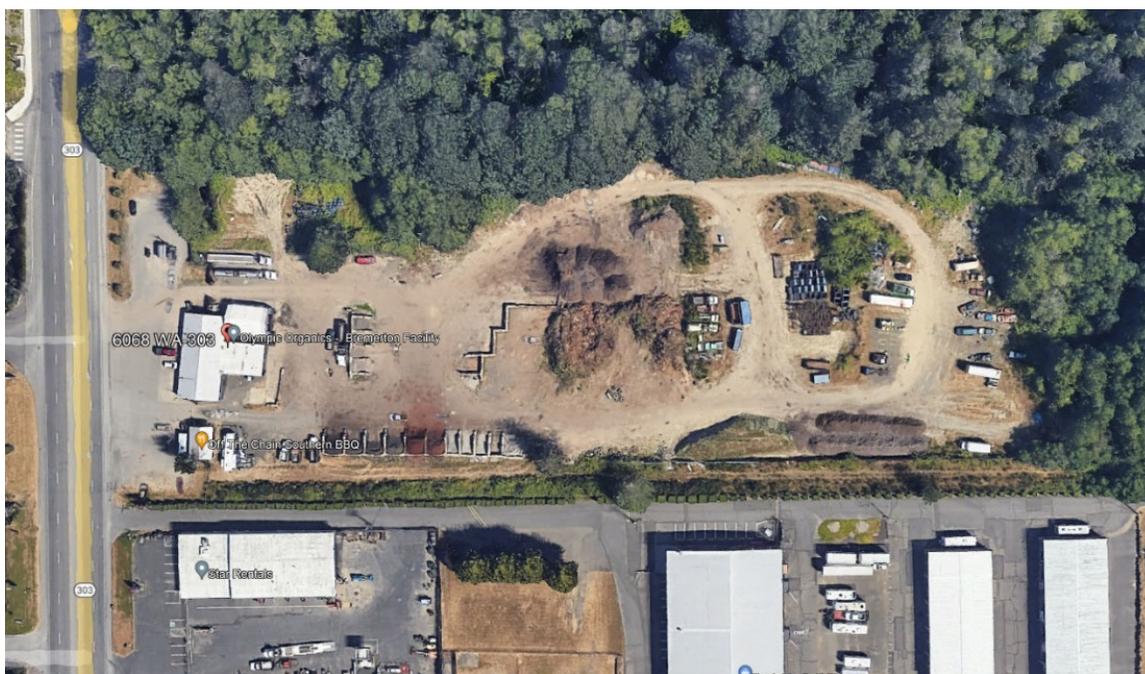


Figure 6 Olympic Organics, Bremerton Facility



Figure 7. Olympic Organics, Kingston Facility

2.2.5 North Mason Fiber (Organics)

North Mason Fiber is a permitted organics compost facility per WAC 173-350-225 which offers bark, wood chips, and sand and gravel for sale. According to State data reported by the facility, North Mason recorded a total of 12,349 tons of facility feedstock in 2021-2022, processing commercial and residential yard and wood waste. This facility is located at N.E. 431 Log Yard Road Belfair, WA 98528 (See Figure 8 and Map 1) and accepts clean land clearing debris (stumps, brush, limbs, and other natural wood waste), yard waste (tree branches, grass clippings, etc.), construction wood debris (discarded lumber, wood scrap, pallets, plywood, particle board) and, according to the facility website, BD's combined yard waste, and minimal amounts of residential food waste.

A Fact Sheet for the North Mason Fiber facility is included in Attachment 3.

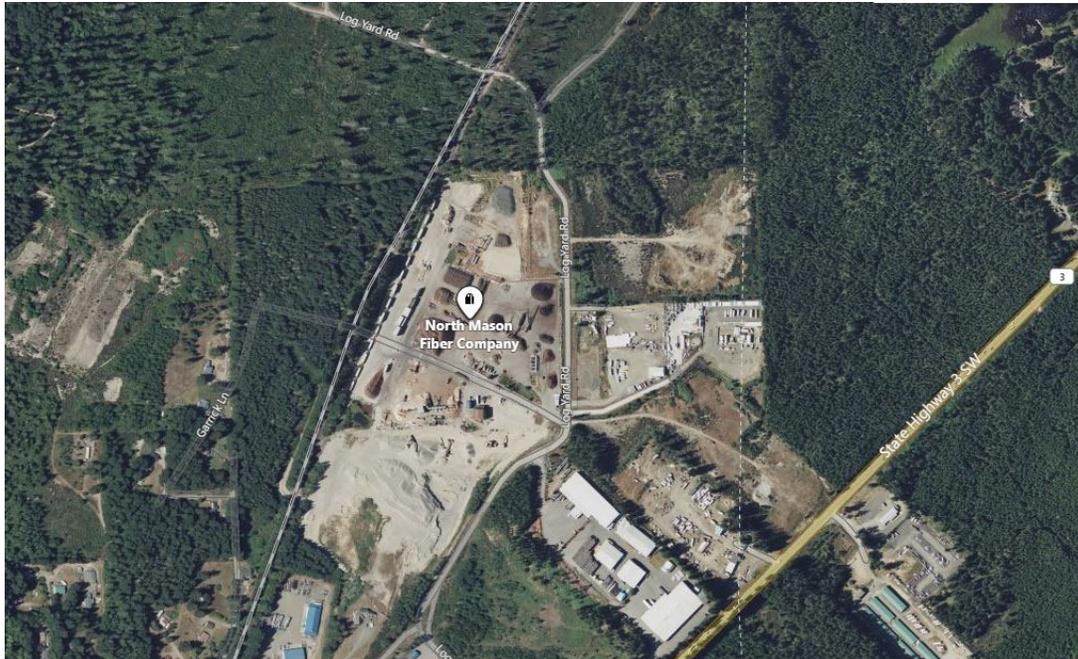


Figure 8. North Mason Fiber (Organic)

2.2.6 Columbia Ridge Landfill and Green Energy Plant

Columbia Ridge Landfill and Green Energy Plant (Columbia Ridge Landfill) is the landfill utilized by OVTS located at 18177 Cedar Springs Lane, Arlington Oregon 97812 (see Figure 9 and Map 1) and is owned and operated by WM Disposal Services of Oregon with a DEQ Solid Waste Permit #391. The Columbia Ridge Landfill services a multitude of regions including Oregon, Washington, Idaho, Alaska, and Canada. The facility is 12,000 acres with a permitted footprint of 700 acres; a remaining permitted capacity of 320 million tons, processes 2.8 million ton annually as of 2021, and a projected life of 120 remaining years as of 2021. The energy plant at Columbia Ridge Landfill uses landfill gas to generate renewable energy as part of WM's focus to extract value from waste. According to the 2021 Bioeconomy Development Zone Risk Rating Report, the tipping fee at Columbia Ridge Landfill averages at \$33.02 per ton, the facility charges between \$30.22 and \$41.89 per ton depending on the MSW's jurisdiction of origin. The facility accepts abrasive blast media, agricultural waste, animal waste, asbestos containing material (friable and non-friable), auto shredder residue, biosolids, C&D, dredged wet sediments, filter cake, incinerator ash, industrial and special waste, medical waste (treated), and treated wood – Columbia Ridge Landfill receives BD's MSW through transport of truck and rail.



Figure 9. Columbia Ridge Landfill

3.0 POTENTIAL RESOURCE RECOVERY/DIVERSION OPTIONS

This section discusses potential options for the City to consider in enhancing diversion programs and associated facility needs to meet State and City established goals. Potential programs are categorized into the following program types: Reduction, Reuse and Recycling Programs, Organics Diversion Programs, Construction and Demolition Waste Programs/Options, Promotion and Education Programs, and Policies and Measurement. Section 3.1 discusses potential facility needs to support enhanced solid waste management including transfer station/materials recovery facility, organic waste processing (i.e., composting and anaerobic digestion), C&D resource recovery, transformation, and disposal facilities.

3.1 Programs

3.1.1 Reduction, Reuse and Recycling Programs

Waste is identified as a significant concern in the City's CAP, with reduction and landfill diversion being specific focus areas. The City currently faces challenges with the lack of markets for un-recyclable materials and lack of infrastructure on the Island to dispose of generated waste – the City's aggregated waste is currently transported to be landfilled off Island in eastern Oregon, contributing to greenhouse gas emissions from the transportation component in addition to the generation of waste being landfilled. Programs listed below propose potential options to increase diversion from landfill disposal and reduce waste generation in the City.

- Mandate three stream curbside collection (garbage, recycling, organics) for residents;
- Mandate three stream collection (garbage, recycling, organics) for commercial generators;
- Charge a contamination fee for improper use of recycling and organics waste receptacles;
- Mandate a 3-bin system at all public areas and City facilities/events to include garbage, recycling, and organic waste bins. Develop spaces for congregated waste receptacles in public areas.
- Support and foster partnerships with existing community groups practicing reduction and diversion initiatives;
 - **Bainbridge Island School District** – Formed a District green team to develop policies to eliminate disposable flatware at many schools, implement recycling streams for hard to recycle materials (ex. Plastic film, Styrofoam, markers, etc.), and implement a 3-bin system for compost, recycle, landfill
 - **Buy Nothing Bainbridge** – Reduces community waste by providing locals a market for free unwanted goods to circulate back into the local economy and diverting otherwise wasted goods from being disposed into the landfill
 - **Bainbridge Island Rotary Auction and Rummage Sale** – One of the largest reuse and recycling events in the City, offering opportunities for locals to properly recycle and dispose, as well as establish partnerships with dozens of nonprofits to divert materials heading into the landfill.
- Encourage and/or support development of reuse depots, thrift stores, free/donation, and repair/reuse systems;
- Partner with electronic waste, battery, and hazardous material drop off sites to expand programs to City facilities (e.g., public libraries) and reoccurring collection events;

- Adopt zero waste initiatives that will support a collaborative network of programs targeting un-recyclable materials and reducing consumption of disposable plastics – while also meeting requirements of Ordinance 2021-34; including:
 - Development of business partnership programs to promote zero waste (e.g., restaurants and food service businesses can incentive the use of re-usable ware through a points system or discount).
 - Partnering with stores to develop zero waste practices respective to the business type
 - Increasing take back programs with local retailers
 - Developing a team of representatives devoted to promoting and educating proper waste diversion practices at Citywide events.
- Evaluate options to accommodate service areas with narrow streets and roads not currently serviced (i.e. providing for adequate turn around area at end of roads and/or evaluating smaller trucks capable of accommodating difficult service areas).

3.1.2 Organics Diversion Programs

The United States Department of Agriculture estimates 31% of food is lost at the retail and consumer level. Proposed organics diversion programs will provide more control, involvement, and recordkeeping efficiency for the City to meet organics diversion requirements of HB 1799 and City established greenhouse gas reduction and food waste diversion goals, while simultaneously meeting priority actions 7.B.1.a and 7.B.1.b of the City's 2020 CAP. Programs for increased organic waste diversion are only effective if there is organics processing facility capacity to meet the demands of the City. There are several organic waste processing facilities in Kitsap County, two of commercial size including Olympic Organics and North Mason Fiber both currently being used by BD. Olympic Organics is permitted to process pre and post-consumer food waste. Options to increase organics diversion in the City include the following:

- Mandate curbside food waste and yard waste collection for residents;
- Mandate organic food waste collection for commercial establishments;
- Develop public education and outreach campaign to promote food waste prevention and adding food waste to green waste bins;
- Monitor capacity and foster development of local and regional infrastructure for processing food scraps and other organic waste;
- Adopt compost procurement ordinances (City has such an ordinance in progress);
- Coordinate with the Washington Department of Agriculture to establish compatible and voluntary reporting protocols to track food donations – per Sections 403 and 404 of HB 1799;
- Partner with local organizations to implement edible food waste recovery programs (ex. Foster a partnership with Kitsap Harvest to increase collection of excess food waste at private and public farmlands);
- Partner with local gardens to implement compost hubs for organic food scrap drop-offs.
- Develop food waste drop off deposit systems at City facilities or community events – edible or inedible depending on the capabilities of the City; and
- Educate the community on food waste reduction while promoting opportunities to divert edible food waste.

- Implement composting workshops to encourage home composting of food waste/scrap on a local level and educate on food waste prevention.
- Implement donation food banks or neighborhood giving/trading, as mentioned in the 2020 CAP.

3.1.3 Construction and Demolition Waste Programs/Options

Construction and demolition (C&D) waste materials generated in Kitsap County contain concrete, wood, metals, glass, and salvaged building components. A 2009 Waste Characterization Study specific to Kitsap County identified C&D materials as a target for diversion and among the top five most generated waste in the County at 12.2%. Diverted materials consist of clean wood, concrete and asphalt, and metals, all of which are being recycled at processing facilities identified in the KC SHWMP 2018 – however, a portion of disposed C&D materials contain large amounts of recyclable wood, gypsum, metals, roofing, plastics, and carpet. The County has facilities recycling C&D materials such as asphalt/concrete, Kitsap Reclamation & Materials, Inc., however, there are no facilities diverting C&D debris within the County. The policies and programs below provide options for the City to further divert recyclable C&D materials from disposal. In order for proposed mandates to be implemented, the City needs facilities with capacity to meet C&D debris processing demands from the City. The nearest mixed C&D processing facility is DTG Recycle currently located in Tacoma, Washington.

- Develop C&D Re-use Mandates and Policies for new construction and existing building renovations (C&D Ordinance);
- Promote existing C&D Re-use programs (ex. building material re-use centers);
- Develop policies that support C&D recycling (ex. minimum waste diversion goals/requirements for C&D projects); and
- Create C&D Recycling Deposit Refund Program as part of building permits to support C&D waste diversion policies.

3.1.4 Promotion and Education Programs

Education and awareness among residential, commercial, and industrial waste generators in the City are pivotal components in influencing positive changes to social behaviors and catalyzing an informed community involved in meeting CAP and waste diversion goals. Promotional and educational programs listed below address potential community services to improve the understanding of solid waste management as stated in Section 7 of the 2020 CAP. These programs also provide many opportunities for the City to collaborate and utilize existing community groups to develop and foster a network of enthusiastic citizens.

- Enhance educational outreach for residential and commercial waste generators;
- Establish Community Based Social Marketing as framework for outreach;
- Develop community-based metrics and waste diversion promotion and recognition program (e.g., track performance by community and create a diversion competition);
- Coordinate with County to provide standardized signage, branding, and color coding for the region;
- Coordinate with Kitsap County to utilize resources mentioned in the 2020 CAP:
 - Signage developed by Kitsap Solid Waste and BD
 - EnviroStars green business program

- Outreach materials and services from BIZW. This includes hosting recycling events, community waste sorts, local meetings; and materials such as signage, compost buckets, and reusable bags.
- “What Do I Do with It?” Kitsap County developed website with recycling and reuse information
[What Do I Do With It? Recycle & Disposal Guide \(kitsap.gov\)](https://www.kitsap.gov/what-do-i-do-with-it?recycle&disposal)
- Kitsap County Recycling and Garbage News email newsletter
- County Solid Waste Advisory Committee (SWAC), current City representative is Diane Landry, an active leader and member of several community groups promoting sustainability. Recommend a City staff representative become a SWAC member.
- Partner with non-profit organizations to develop business partnership programs or community programs – Such as Sustainable Bainbridge, to promote existing community established projects focusing on climate change and waste related campaigns through various initiatives:
 - **Bainbridge Island Zero Waste** – A volunteer-based organization developed under Sustainable Bainbridge with a mission to reduce community generated waste by influencing social behavioral change through education. The organization offers numerous resources and programs to educate audiences: Reuse/Recycling guides and quizzes, a Tableware Lending Library program, Zero Waste Event Assistance, Styrofoam collection, and monthly newsletters.
 - **ReFashion Bainbridge** – A collective of artists, activists, and neighbors working to address the adverse environmental and social welfare impacts by educating and empowering audiences of sustainable fashion consumption through workshops, fashion shows, and conferences. With Refashion Bainbridge’s efforts, audiences learn to restore garments and slow the increase of textile waste.
- Encourage businesses to receive green certification from their respective organizations (e.g., Green Circle Salons, Green Restaurant Association, etc.) as mentioned in the 2020 CAP.

3.1.5 Policies and Measurement

Authorizing bans, mandatory services, rate structures, purchasing guidelines, and structuring collection service contracts are all examples of regulatory and policy drivers for meeting solid waste management goals which can be implemented at a State, County or local level (as further discussed in Section 1). The following are effective options for policy-making and measurement of progress for the City to consider.

- Appoint a City staff representative to be a member of the Kitsap County SWAC to participate in Comprehensive solid waste management planning for City and County, in particular for compliance with HB 1799 OML. City currently has representative provided by Sustainable Bainbridge. City can develop a more strategic plan to meet specific needs in a manner consistent with regional County planning strategies and in alignment with City climate action goals.
- Conduct annual solid waste management reporting.
- Perform regular waste composition audits (every 2-3 years) to identify target waste streams for optimal diversion and to measure progress in meeting diversion goals.
- Pilot projects to test new initiatives (residential food waste kitchen pail programs).
- Lobby state government to create extended producer responsibility policies or programs (e.g. Bottle deposits, mattresses, HHW, electronics, etc.).

3.2 Associated Facilities

Potential programs described in Section 3.1 may require additional infrastructure capacity for proper implementation such as the need for expanded composting facility capacity that can accept and process food waste. Identifying infrastructure facilities and capacity for processing is the responsibility of the solid waste collection hauler under existing conditions. The facilities described in Section 2.2 provide capacity to meet the existing demand for processing of garbage, organics and recyclables for the City. With implementation of HB1799 requiring statewide organics diversion, existing organics processing capacity will need to be assessed for ability to accept future regional demand. A comprehensive solid waste management infrastructure includes a variety of facilities to manage MSW including: chip and grind for green materials, organics processing (e.g., open windrow composting to anaerobic digestion), transfer/materials recovery, C&D resource recovery, conversion technologies (such as anaerobic digestion or co-digestion at a wastewater treatment plant, incineration or waste-to-energy), and landfills.

4.0 COLLECTION MANAGEMENT OPTIONS

This section describes various solid waste collection management options available to the City to achieve its goals and objectives: reducing waste generation, encouraging greenhouse gas emissions reductions, increasing diversion from landfills, and optimizing collection and disposal systems as stated in Section 1.1.

4.1 Collection Management Options Descriptions

Descriptions of various solid waste management options available to the City are set forth below. It should be noted that for collection options other than the status quo, legal and procedural requirements/implications need to be evaluated and considered for the City to take control of solid waste collection.

4.1.1 Status Quo – WUTC Rate-Setting and Regulation

Description: The City currently does not provide solid waste collection services, nor does it directly contract for such services. Rather, the [Washington Utilities and Transportation Commission \(WUTC\)](#) regulates the service area and rates for private firms that wish to provide service in the City. Through this state regulatory structure, BD provides all solid waste collection and processing services in the City. Under RCW Title 81, in 1984 WUTC granted to BD a certificate for garbage and refuse collection service on Bainbridge Island. Disposal rates are regulated by WUTC and fuel price surcharges have been granted periodically over the past several years. BD is required to submit annual financial and operating reports to WUTC.

Advantages:

- Minimal oversight and administrative cost to City.
- WUTC regulatory oversight within State standard practices.
- Opportunity to increase service levels through regulatory ordinance to help achieve City climate action and solid waste management goals.

Disadvantages:

- No contractual control over collections.
- More difficult to establish and monitor progress toward City goals.
- No control over rate setting or solid waste management funding for programs (except potentially through utility tax allowed by WUTC).
- No direct billing or outreach relationship with City residents.

4.1.2 Provide City-Owned and -Operated Collection Services and Billings

Description: An alternative to the WUTC rate-setting and regulation process is for the City to manage its solid waste through City-owned and -operated services with direct billing to customers for these services. WUTC would not have any regulatory authority and the City Council would have rate-setting, procurement, and regulatory authority. Facilitating service level changes and illegal dumping problems are often drivers for adoption of this approach, and requirements for unlawful storage, disposal, scavenging, and hauling are often defined and enforced.

Advantages:

- Easier to implement mandatory collection and other higher levels of service.
- Easier to monitor progress toward City zero-waste and GHG emissions goals.
- Direct regulatory oversight.
- Direct billing and outreach relationship with City residents.
- Opportunity to establish solid waste fund to budget operations, solid waste programs and administration and to build and maintain fixed assets.

Disadvantages: City would incur significant start-up, oversight, staffing, billing, and other administrative costs.
Requires substantial City investment in vehicle fleet and transfer facilities.
Higher cost to rate payers.

4.1.3 Contract Collection Service with City Rate Setting Control

Description: An alternative to the option described in 4.1.2 above is for the City to manage its solid waste by contracting solid waste collection services with a private firm and controlling rate setting and billing. The City sets the contract terms and required level of service (including possible mandatory collection). Under this option, WUTC would not be involved and the City Council would have rate-setting, procurement, and overall regulatory authority. Requirements for levels of service and unlawful storage, disposal, scavenging, and hauling may be defined and enforced by the City.

Advantages: Ability to set rates and fund solid waste management programs, staffing needs and administration costs.
Direct ability to achieve zero-waste and GHG emissions goals.
Direct regulatory oversight and outreach abilities.

Disadvantages: City would incur start-up and ongoing administrative costs.
City would be responsible for annual financial reviews and rate-setting.
Only indirect control over billing if provided by private contract hauler.
Potential for increase in cost to rate payer.

4.1.4 Contract Collection Service with WUTC Control Over Rates and Billing Process

Description: A variation on the option described in 4.1.3 above, is for the City to manage its solid waste by contracting solid waste collection services with a private firm and the WUTC control rates and the billing process. The City would set the contract terms and required level of service (including possible mandatory collection) and the WUTC would set the rates. The private firm would directly bill customers and the WUTC would oversee rates. Requirements as to unlawful storage, disposal, scavenging, and hauling may be defined and enforced by the City.

Advantages: Direct City contractual oversight.
Direct ability to achieve zero-waste and GHG emissions goals.
Direct ability to implement mandatory collection.

Disadvantages: WUTC rate oversight.
Billing through others limits funding for City solid waste programs, staffing needs and administrative costs and outreach to residents.
City would incur contracting start-up costs and ongoing administrative costs.

City would be responsible for annual reviews.

5.0 EXPLORATORY EVALUATION CRITERIA

This section presents criteria used in evaluating the opportunities and constraints of diversion program and collection management options described in this memorandum, as part of the Study's Task 3. The selected criteria considers environmental, financial, social and equity, regulatory compliance and planning goals, and level of service factors for each Study option and were developed with input from City staff.

5.1 Environmental

Environmental impacts and stewardship within the City are identified as a significant and valuable consideration as presented through the development of the 2020 CAP goals and numerous existing community initiatives promoting zero waste, recycling, and sustainability. The City has identified plastic waste as a significant source of negative environmental impacts, contributing to contamination, consumption of resources, emissions of greenhouse gasses, air and water pollution, street litter, and pollution to oceans and waterways. How the City chooses to manage local waste collection services and enhance waste diversion can further drive City initiatives and support community organized programs while also meet climate action goals.

For this criterion, options will be evaluated for minimizing environmental impact parameters such as traffic, air quality and noise and for providing environmental benefits such as providing green energy, renewable fuels, or reduced greenhouse gas emissions.

5.2 Financial

The City's options to implement waste diversion programs and to oversee waste collection/disposal services will have impacts on all entities involved, including the service provider/contractor, customers receiving services, and the City. Dependent on which options the City implements, it will need to evaluate the costs of services required of customers (residents and commercial entities).

Waste collection and disposal services in the City are currently a voluntary based service, customers receiving waste services from BD opt to pay a service cost, while residents who self-haul are not required to pay that cost. Service costs will need to be considered in the instance the City decides to require a standardized waste collection service for all residents and commercial businesses, which will then make service costs mandatory for all. The City and contracted hauler will need to establish fees and rates based on the solid waste services and programs to be implemented.

For this criterion, options will be evaluated for potential financial impacts on the service providers, rate payers and City. For the City, a financial goal is to be able to fund solid waste programs, staffing needs and administration costs.

5.3 Social and Equity Considerations

The City's approach to waste collection and diversion programs will require the City to consider how impacted parties will respond to new systems, as the feasibility of implementing programs and mandates have varying effects on different entities regarding their socio-economic standing. For example, the lower income population are likely to be affected most by service rate increases compared to higher- and middle-class populations. New implemented systems will lead to a variance of community acceptance depending on which collection management option the City decides to move forward with (voluntary status quo or

mandatory services). Regardless of which option is selected for implementation, community acceptance will be disparate between the various options.

For this criterion, options will be evaluated for potential public acceptance and reasonable accessibility to the local community.

5.4 Regulatory Compliance and Planning Goals

Meeting the CAP's primary goals to increase landfill diversion, optimize collections and disposal systems, and organic waste diversion from landfills will be a highly valuable component to consider in deciding which waste diversion programs and collection service options align and strengthen the City's goals and values for solid waste management. Options will be evaluated that best meet state and local mandates such as HB1799 and City Ordinance 2021-34 by promoting organic waste diversion and plastic waste reduction. Options that the City will need to consider must ensure that the service provider has the infrastructural and operational capabilities of handling and processing an increase of the organic and recycling waste streams to meet state diversion goals.

For this criterion, options will be evaluated for meeting the City's relevant CAP recycling and climate action goals (reducing greenhouse gas emissions), local ordinances and program goals, and State requirements.

5.5 Level of Service

WUTC currently oversees contracting waste collection services for the City, in which services are on a voluntary basis. The City has determined that having control over waste collection services may assist in two primary objectives of the City including: i) measuring, monitoring and improving the efficacy of meeting City and Statewide waste diversion and greenhouse gas reduction goals as well as customer service, and ii) addressing and directing the enhancement of the level of service offered including, but not limited to, curbside collection for difficult to reach customers and congregated waste receptacle space.

For this criterion, options will be evaluated for providing optimal level of service for the City in terms of diversion programs and waste collection management options.

6.0 SOLID WASTE MANAGEMENT OPTIONS EVALUATION

The Tetra Tech team conducted an exploratory evaluation using the five criteria described in Section 5.0 to identify opportunities and constraints for each of the various solid waste regulatory, programmatic, and collection management options identified for the City in Sections 3.0 and 4.0 (see Attachment 4 - Evaluation Matrix). The waste management options evaluated include Resource Recovery/Diversion Options described in Section 6.1 and Collection Management Options described in Section 6.2. Collection Management Options are listed in Section 6.2 and a detailed description can be found in Section 4.1.

6.1 Resource Recovery/Diversion Options

Resource recovery/diversion options were separated into two groups including regulatory and programmatic options.

6.1.1 Regulatory

- **Mandatory 3-Stream Waste Collection Services (Residential and Commercial)** - Requires mandatory garbage, recycling, and organic waste services for all residents, commercial generators, and City facilities. This option requires that the waste collection hauler collect, transfer, and process MSW, recyclables and organics (green and food waste) as three separate streams.

Jurisdictions with existing 3-stream waste collection programs in place are generally driven by regulation changes (such as HB1799). The regulatory framework in which a diversion program operates needs to address collection, processing, management of end products (e.g., compost), and overall residual disposal. Regulations governing processing and disposal are typically developed at the regional or state level, and disposal restrictions/bans often provide the impetus for local governments to initiate diversion programs. The regulations governing collection are typically developed at a local or municipal level.

Disposal regulations should include disposal restrictions/bans on recyclables and organics and/or tipping fee differentials (with lower MSW rates given for loads that are free of recyclable and organic materials). Mandated collection may be implemented one sector at a time. Some jurisdictions prefer to start with the commercial sector, since it is easier to obtain large, clean loads of organics from sources such as grocery stores and restaurants, whereas some jurisdictions prefer to start with the single-family residential sector, since the local government usually controls the collection service for single family homes. For the City, space constraints for the commercial sector may be a challenge for 3-stream collection and BD already offers an optional third organics cart. A mandatory 3-stream collection system for residential could be implemented first while space constraint issues are identified and addressed for the commercial sector.

Mandating service provisions to include 3-stream waste collection is an effective regulatory tool that works in concert with disposal restrictions. Jurisdictions that not only require service but build in participation requirements (with enforcement mechanisms) tend to be more effective for fostering behavior change, especially when a 'carrot and stick' approach is used and enforcement is prioritized. Collection regulations should address the operational aspects of the program, such as:

- Collection frequency.
- Acceptable materials/material sorting requirements.
- Collection location.
- Cost recovery.

- Nature of service (mandatory service is the best practice for increasing diversion rate).
 - Enforcement mechanisms and associated civil penalties for contamination and non-participation.
- **C&D Ordinance** – Develop C&D Waste Diversion Mandates and Policies for new and existing buildings (C&D Ordinance). Develop policies that support C&D recycling (ex. Minimum diversion for C&D projects, dismantling of buildings, and preparation of waste management plans). Consider mandatory recycling of C&D once adequate processing capacity is available.
 - **Contamination Enforcement** – Implement a penalty for improper use of recycling and organics waste receptacles.

6.1.2 Programmatic

- **Solid Waste Management Planning** – Participate in the County’s solid waste management planning process and adhere to County SHWMP strategies. City staff representation should be present at all Solid Waste Advisory Committee (SWAC) meetings to be kept apprised of County initiatives and plans and to provide input on the City’s solid waste management plans and initiatives. This is particularly important in regional planning efforts to meet State regulatory requirements of HB1799. The comprehensive SHWMP provides a framework for solid waste management in the County and program development, in particular for compliance with the 2022 OML and for supporting zero waste initiatives.

The City can further those planning efforts with a focused strategic plan that identifies, evaluates and develops short- and long- term strategies and options, with a detailed implementation plan, to best manage waste in the City in a manner consistent with regional County planning strategies and in alignment with City climate action goals. Solid waste management planning enables local governments to:

- Coordinate with community and stakeholders involved in waste management.
- Understand current waste management practices and systems in place.
- Identify challenges, deficiencies and current system needs.
- Identify opportunities and set priorities for improvement.
- Identify short- and long- term resources, financial and budget needs (capital costs and operations costs).
- Develop detailed implementation schedule.
- Set goals/targets and measure progress each year.
- Revisit and modify priorities as the plan is implemented.
- Communicate the plan goals, recommended improvements and implementation schedule to community, stakeholders, and external agencies.
- Develop social and behavior change program.

A plan can also support project proposals for grants, funding and private sector engagement for program and system implementation.

- **Waste Composition Audits** – Perform regular waste composition audits (every 2-3 years) to gauge progress of meeting HB 1799 and City Ordinance 2021-34. The objective of waste composition audits is to develop metrics around waste composition, food waste diversion rates, and contamination rates. Waste characterization studies can help in planning how to reduce waste, develop recycling programs, monitor diversion program success, determine changes in waste stream, facility design, and conserve money and resources.
- **Public Outreach and Education** – Expand education and outreach program for composting, recycling, and other waste diversion initiatives in the City for all residents and commercial generators.

Education and behavior change programming are key to rolling out a new program, and need to be maintained over time. Successful education programs are available in multiple languages and provide consistent messaging with recognizable branding (e.g., logo, slogan, mascot etc.). Education materials should also emphasize images over words. By employing a community-based social marketing approach, it is possible to overcome specific barriers to program participation using motivating tools that foster behavior change and compliment other information distribution efforts.

During program launch, the following tactics are popular:

- Community outreach (have a presence at community events, door-to-door campaigns)
- Conduct workshops
- Produce online videos
- Distribute flyers
- Advertise in newsletters, newspapers and social media
- Hold Town Hall meetings and provide recordings online
- Provide kitchen pails for residential food waste collection (some jurisdictions believe in universal distribution, especially for the program launch, others favor providing them on request)

For ongoing education, the following tactics are frequently used:

- Have an informative website
- Have an online sorting game (e.g., <https://edmonton.recycle.game/>)
- Use a “waste wizard” type of app that allows residents to type in different kinds of waste and find out where they should go
- Institute a compost give-back program for residents to reinforce the value of compost and provide a reward for program participation
- Create a program newsletter for community awareness (e.g., The Denver Com-Post and the Curbsider newsletter in Portland are both published twice per year)
- Offer a train the trainer style Master Recycler/Composter Program
- Ensure elected officials are knowledgeable about the program and provide support

Many jurisdictions stress the importance of both education and enforcement. Generally, jurisdictions favor education over enforcement, resorting to enforcement (by leaving contaminated

bins uncollected and levying fines) only when they feel that generators are willfully not cooperating. Enforcement may be more applicable to the commercial sector, where education and training efforts can be hampered by staff turnover. Being able to impose penalties and demonstrating a willingness to enforce them can increase commercial sector participation.

- **Congregated Waste Receptacle Space** – Develop policies and implement zero waste stations for congregated waste receptacles in public areas.
- **Narrow Streets Collection** – Assess narrow streets collection and develop a customized collection system to accommodate service areas with narrow streets and roads (e.g. small collection vehicles and procuring retrofitted waste bins).
- **Edible Food Recovery** – Partner with local organizations and facilities to implement edible food waste recovery programs, food waste drop off systems, or compost hubs for food scraps.
- **Food Donation Tracking** – Coordinate with the Washington Department of Agriculture to establish compatible and voluntary reporting protocols to track food donations – per Sections 403 and 404 of HB 1799.
- **HHW and E-Waste Program Enhancement** – Partner with electronic waste, battery, and hazardous material drop off sites to expand programs to City facilities (e.g., public libraries) and reoccurring collection events.
- **Community Partnership** – Support and foster partnerships with existing community groups practicing reduction and diversion initiatives (e.g., provide information in City Website). Partner with local organizations such as Kitsap Harvest, Sustainable Bainbridge, Zero Waste, ReFashion Bainbridge, Green Circle Salons, and Green Restaurant Association to increase collection of excess food waste at private and public farmlands and address environmental and social welfare impacts.
- **Reuse Business Support** – Encourage and/or support development of reuse depots, thrift stores, free/donation, and repair/reuse systems. Promote and expand existing C&D Re-use programs (ex. Building material re-use centers).

6.2 Collection Management Options

See Section 4.1 for detailed description of each of the Collection Management Options listed below. Options evaluated include:

- **Status Quo** – WUTC Rate-Setting and Regulation
- **City-Owned and -Operated System** – City would undertake collection Services and Billings
- **Contract Collection Service with City Rate Setting Control** – City would contract out waste collection services to a private firm while collecting fees from customers.
- **Contract Collection Service with WUTC Control Over Rates and Billings** – City would contract out waste collection services to a private firm while WUTC would undertake rate setting and billings.

6.3 Options Evaluation

6.3.1 Resource Recovery/Diversion Options

Attachment 4 – Evaluation Matrix provides a detailed evaluation of each of the potential options identified for the City to consider. The following sub-sections provide an overview of the thematic results for the regulatory and programmatic options. An overview of the collection management options identified for City consideration is presented in Section 6.3.2.

6.3.1.1 Regulatory

Environmental

As previously described in Section 5.1, environmental considerations were assessed for minimizing environmental impact parameters and for providing environmentally benefits.

Of the 3 regulatory options evaluated, mandating 3-stream collection services among residences and businesses would increase the capture rate of organics and recyclable materials, which would greatly support the City's goals of reducing waste-related emissions; increasing diversion of waste from the landfill; and optimizing collection and systems to minimize GHG emissions. The implementation of a C&D ordinance would also reduce GHG emissions by diverting that waste from landfill disposal and contamination enforcement would provide the ability to recycle additional materials due to less contamination but would be at a smaller scale than a mandatory 3-stream system. Additional vehicles may be required to collect additional waste streams, increasing localized traffic and associated carbon footprint.

Financial

Each of the regulatory options were evaluated for potential financial impacts on the service providers, rate payers and the City. Of the three regulatory options evaluated, C&D ordinance was identified as the option that would likely have the least amount of added costs to rate payers and the City. Contamination enforcement would likely present the most public opposition due to penalty fees and privacy concerns. Mandatory 3-stream waste collection would impact rate payers not currently subscribing to a 3-stream collection service and could potentially require new and/or expanded facilities to process diverted materials, increasing fees to the rate payer. All options would require City resources to implement the options and measure and track waste diversion (including contamination for the enforcement option).

The additional recycling fees to be collected through a Recycling Deposit Refund Program could be used to further support C&D activities. The City has opportunities to seek federal and state grants to further support C&D collection and processing as well as opportunities to create jobs locally.

Social and Equity Considerations

For this criterion, options were evaluated for potential public acceptance and reasonable accessibility to the local community. All three regulatory options promote proper behavior change in waste reduction and diversion. They enhance local community zero waste efforts and promote sustainability. They meet best practices for waste management as well as state mandates for diverting food waste, as well as City climate action goals.

Outreach and education, and potentially additional infrastructure, will be needed to promote behavior change. Property owners and commercial businesses may object to additional space to store receptacles.

Public opposition for additional fees associated with a C&D waste recovery program would need to be addressed during the early stages of such policy.

Regulatory Compliance and Planning Goals

Each of the three regulatory options were assessed on parameters for meeting the City's relevant CAP recycling and climate action goals, local ordinances and program goals, and State requirements. Of the three regulatory options evaluated, the mandatory three-stream waste collection services option was identified as the option that would most effectively support the City's regulatory compliance and planning goals. Mandating three-stream collection services among residences and businesses would support the City's CAP recycling and climate action goals to 1) reduce GHG emissions and single-use plastics from marine environments, and 2) reduce GHG emissions from organics disposal at landfills. Mandatory three-stream collection would also support the goals of the 2022 OML by increasing diversion of organics disposal from landfills. This would also align with [RCW 70A.205.040](#), which requires each jurisdiction that implements a local solid waste plan to provide source-separated organic solid waste collection services in accordance with the [Revised Code](#).

The biggest constraint for the mandatory 3-stream collection system and contamination enforcement is that the City does not have current control over waste collection so it would have to take control over collection services to implement those regulatory options.

Level of Service

As previously described in Section 5.5, level of service considerations were assessed on how a regulatory option would help meet City and Statewide diversion and greenhouse gas reduction goals, enhance the level of service offered, support curbside collection for difficult to reach customers, and the ability to service congregated waste receptacles in public spaces. For each of the three regulatory options evaluated, the mandatory 3-stream collection option provides the highest level of service and the C&D ordinance would foster more opportunity for residents and businesses to recycle C&D material. It was found that public outreach and education would be required in order to successfully implement the requirements and build upon existing collection services. For 3-stream waste collection and C&D waste recovery programs, facilities that can adequately process the diverted materials, including food waste, would be required. The City would also need additional staffing to develop and enforce programs.

6.3.1.2 Programmatic

Environmental

As previously described in Section 5.1, environmental considerations were assessed for minimizing environmental impact parameters and for providing environmental benefits. The 10 programmatic options evaluated provide opportunities for diverting waste from landfill disposal which aligns with the City's Climate Action Plan for the reduction of GHG emissions. Solid waste management planning provides the framework, goals, and sets targets for sustainable solid waste management. Waste audits provide insight and an understanding of materials discarded by residents and businesses that can be targeted for recycling. All programmatic options will require some level of public outreach and education to increase environmental awareness and benefits of proper waste management. Reducing greenhouse gas emissions through organics diversion from landfill disposal would be achieved with the implementation of various programs including: Edible Food Recovery and Food Donation Tracking, Community Partnerships, Narrow Streets Collection, and Waste Audits.

The collection of materials including recyclables, organics, edible food, HHW and e-waste; collection in narrow streets; and the transport of recovered materials would require additional vehicles, which carry a carbon footprint impact. The development of public education and outreach collateral, such as brochures for public distribution would also have a carbon footprint impact.

Financial

For this criterion, options were evaluated for potential financial impacts on the service providers, rate payers and City. Solid waste management planning efforts would identify costs and budgeting needs for planned sustainable solid waste services and programs, provide an understanding of requirements, and associated financial obligations to meet statewide mandates and City goals. Community partnerships would allow the City to leverage other resources for promoting waste reduction and diversion, while providing the ability to gauge the level of support for the various solid waste programs. Edible food recovery, food donation tracking, and HHW and E-waste program enhancement may qualify for potential grants from federal and state. Government to increase diversion of organics (collection and processing).

The majority of the options evaluated would require City resources to develop, implement, and maintain the programs. Solid waste management planning and waste audits require resources for development, implementation and updates to verify goal achievement. City staff would be required to keep programs such as Food Donation Tracking and Edible Food Recovery going and there would also be additional cost/resource requirements to participating businesses. Narrow street waste collection would also require additional vehicles and staffing resources.

Social and Equity Considerations

For this criterion, options were evaluated for potential public acceptance and reasonable accessibility to the local community. In order to meet Statewide and City diversion and CAP waste management requirements, the City must enhance local community zero waste efforts and promote sustainability. The majority of the programs evaluated promote behavior change and organic waste reduction and diversion and support sustainable waste management. Stakeholder engagement, outreach and education programs provide the opportunity to receive input from stakeholders including residents and businesses. This will allow the City to identify community priorities and values. Options evaluated provide understanding of materials discarded by residents and businesses. Congregating waste receptacles in public areas would increase accessibility to zero waste stations across local communities.

The implementation of public outreach and education components in each of the programs is key to their success. Community involvement and/or stakeholder engagement will be necessary, requiring City resources to obtain public input. There may be unwillingness from stakeholders to provide feedback and there may be public resistance to programs with cost impacts.

Regulatory Compliance and Planning Goals

For this criterion, options were evaluated for meeting the City's relevant CAP recycling and climate action goals (reducing greenhouse gas emissions), local ordinances and program goals and State requirements. Each of the programmatic options supported regulatory compliance and helped achieve planning goals. Solid waste management planning would establish goals, targets and strategies for solid waste management to align with State regulatory requirements and County and City goals. A waste audit would provide the City with a clear understanding of the quantities of divertible and potentially divertible materials and estimates of required capacity for waste management facilities and environmental benefits (i.e., GHG reduction).

The lack of existing solid waste management governance will create challenges with new/proposed initiatives and the need for public outreach and education. There may be challenges with collecting waste samples as City does not control the waste management system. Resources would be required to obtain community involvement and/or stakeholder engagement.

Level of Service

As previously described in Section 5.5, level of service considerations were assessed on how a programmatic option helps meet City and Statewide diversion and greenhouse gas reduction goals, enhances the level of service offered, supports curbside collection for difficult to reach customers, and the ability to service congregated waste receptacles in public spaces.

Implementation of all the programmatic options would build on or enhance existing services but would require additional resources and coordination with existing or control of collection services to help meet the City's diversion and greenhouse gas reduction goals.

6.3.2 Collection Management Options

As referred to in the Evaluation Matrix, the following subsections: explore the opportunities and constraints for the City's collection management options. Through discussions with the City, the collection options explored include Status Quo, City Owned and Operated, Contract Collection Service with City Rate Setting Control, and Contract Collection Service with WUTC Control Over Rates and Billings.

6.3.2.1 Status Quo

Environmental

For this criterion, the Environmental impacts of providing collection services were evaluated based on the City's current system of WUTC Rate Setting and Regulatory authority over the service provider, BD. Under the status quo, there are opportunities for the City to achieve its environmental climate action goals through regulatory action such as a City ordinance that the existing hauler has to comply with. The constraint is in not directly controlling collection service through a contract and having to coordinate with the existing hauler to optimize environmental benefits or reduce environmental impacts and monitor progress towards these goals.

Financial

Under the Status Quo, in analyzing the opportunities and constraints for financial impacts to the City and customers, the financial benefit is that the City would continue to have no oversight or administrative costs for providing collection services to residents. A constraint for the City is the lack of control over rate setting, limited funding for solid waste administrative costs and programs and no direct billing and outreach relationship with City residents. Some City solid waste management costs could potentially be recovered under this scenario through a utility tax allowed by the WUTC but may not meet the City's solid waste management financial needs.

Social and Equity Considerations

From a social and equity perspective, the City has the opportunity to coordinate with their hauler to promote waste diversion and provide for sustainable waste management services that are accessible to all members of the community, regardless of income or social status. By working with their hauler, the City can develop programs that help address the unique needs and challenges of their different neighborhoods.

However, with the Status Quo and not having direct control or relationship with solid waste customers, it can be more difficult for the City to gauge and ensure that all members of the community have access to safe and sustainable waste management services. It can also be challenging for the City to communicate important information or changes regarding waste management services, or to receive feedback from residents about their needs and concerns.

Regulatory Compliance and Planning Goals

Under the Status Quo, the WUTC is in alignment with regulatory oversight within State standard practices and compliance with City specific goals can be regulated through City ordinance. A constraint is the need to coordinate with a hauler regulated by the WUTC to establish and monitor progress toward City climate action and solid waste goals.

Level of Service

Under the Status Quo, the City does not control collection services but mandatory collection or higher levels of service can be enacted through City ordinance. A constraint is that implementing service level changes and monitoring where improvements can be made is more challenging when not in control of the service provider.

6.3.2.2 City Owned and Operated

Environmental

For this criterion, if the City owns and operates their own collection system, there would be an opportunity for expanded control over their environmental footprint, specifically, greenhouse gas emissions related to hauling, processing, and landfill disposal. A constraint is that the City may not have comparable economies of scale for an operation as efficient as a contractor would, potentially increasing the City's overall carbon footprint related to materials management.

Financial

The financial opportunity for the City to own and operate its collection services and billings lies in the ability to establish a solid waste fund to budget operations, build and maintain fixed assets, and have direct control over rate-setting for collection services. Overall, this approach would provide the City with greater financial control, stability and predictability for waste management operations and the ability to invest in sustainable waste management practices to help achieve its goals.

The financial constraint for the City to own and operate the collection system and customer billings is that it would require significant resources, such as equipment, vehicles, and staff, to provide these services. Additionally, the City would need to invest in start-up and ongoing administrative and operational costs, which could be a financial burden. This approach is also likely to be less efficient and more costly than contracting with a private contractor whose business is in waste collection so rates would likely be higher for customers. The City would need to consider the financial implications of owning and operating collection services from a policy perspective.

Social and Equity Considerations

From a social and equity perspective under this scenario, the City's opportunity is multifaceted. Firstly, it provides an opportunity for the City to raise awareness of its role in solid waste management and better promote sustainable practices among residents. Secondly, a direct relationship between the City and customers can foster a greater sense of community and accountability for waste management practices.

Finally, the City would have control over hiring staff and meeting social objectives, such as promoting diversity and inclusion in the workforce.

The constraint from a social perspective is the potential for increased cost to rate payers and the City would have a need for public outreach and education on rate impacts.

Regulatory Compliance and Planning Goals

The regulatory compliance opportunity for the City in this scenario is that it provides a higher level of local control over compliance and progress toward City goals than the Status Quo with the WUTC rate setting and regulation. Additionally, direct regulatory oversight provides greater accountability and transparency for waste management practices. Overall, owning, and operating waste collection services would allow the City to take a more active role in ensuring compliance with regulations and achieving its waste management goals.

The regulatory compliance constraint for the City in this scenario is the lack of existing solid waste management governance. Without an established framework for managing solid waste, the City would need to develop its own regulations and compliance measures, which can be a time-consuming and resource-intensive process. Additionally, the City may face challenges in ensuring consistency and standardization in waste management practices without a comprehensive governance structure. Legal and procedural requirements/implications need to be evaluated and considered for the City taking over control of collection.

Level of Service

Under this scenario, the City would have the ability to design a rate structure around the desired level of service, solid waste management funding needs and increased levels of service by collection service line. Additionally, the City can directly implement compulsory/mandatory collection to increase diversion rates. This option also provides an opportunity to directly address customer service needs. Overall, owning and operating waste collection services can provide the City with greater flexibility and control over the level of service provided to residents. The constraint in directly providing the desired level of service is in the significant resources required and cost impact on customers.

6.3.2.3 Contract Collection Service with City Rate-Setting Control

Environmental

For this criterion, if the City contracts out their waste collection service but controls rate setting, there would be an opportunity for expanded control over their environmental footprint, specifically, greenhouse gas emissions related to hauling (i.e. collection trucks using cleaner fuel), processing, and landfill disposal through hauler contracts. However, the City's control and ability to monitor progress towards climate goals may be affected if there are multiple small hauler contractors.

Financial

The financial opportunity for the City to contract collection services but retain control over rates is that it would allow the City to set rates for the level of service provided and to provide funding for solid waste management programs, staffing and administrative costs as well as provide flexibility to adjust rates as necessary to meet changes in operations or goals. Additionally, the City would be responsible for conducting annual financial reviews of the collection services contractor. This would allow the City to monitor the financial performance of the contractor, ensure that rates are appropriate and equitable, and take action if necessary to address any change in operations and costs affecting the fiscal position. The

City would be responsible for assessing fair and reasonable costs to residents, while also meeting the City's financial policies and objectives.

A constraint with the City having direct control over rate-setting for collection services, is that it would incur start-up and ongoing administrative costs. These costs would include contracting services and rate setting, which can be time-consuming and require additional staffing resources. Additionally, in being responsible for annual financial reviews, these reviews would require additional administrative resources and potentially external consulting services. Recovery of these costs would be included in rates set by the City which would likely be higher than the Status Quo for customers.

Social and Equity Considerations

Similar to the City Owned and Operated scenario, with the City having direct control over collection service and rate setting, they would have the opportunity to raise awareness of its role in solid waste management and better promote sustainable practices among residents aligned with its climate action goals. Additionally, a direct rate setting relationship between the City and its residents could foster a deeper sense of community than their current environment with the WUTC in control of rates.

The social and equity constraint in this scenario, similar to the City Owned and Operated scenario, is the potential for increased costs to rate payers and need for public outreach and education on rates. Additionally, there would be less control for hiring staff and meeting the City's social objectives with contracting services in comparison to the City Owned and Operated scenario.

Regulatory Compliance and Planning Goals

The regulatory compliance opportunity for the City in this scenario is that it provides a higher level of local control over compliance and progress toward City goals than the Status Quo with the WUTC rate setting and regulation. Direct regulatory oversight provides greater accountability and transparency for waste management practices in the City.

The regulatory compliance constraint for the City in this scenario is the lack of existing solid waste management governance. Without an established framework for managing solid waste, the City would need to develop its own regulations and compliance measures, which can be a time-consuming and resource-intensive process. Additionally, the City may face challenges in ensuring consistency and standardization in waste management practices without a comprehensive governance structure. Legal and procedural requirements/implications need to be evaluated and considered for City taking over control of collection.

Level of Service

With City contracted collection service and control over rate setting, the City would have the direct ability to provide requirements and design a rate structure for a desired level of service, solid waste management funding needs and increased levels of service by collection service line. The City would also have more control over where materials are processed and disposed. In regard to challenges with illegal dumping or contamination, the City can develop economic controllers such as imposing fees to discourage illegal dumping and ensure proper waste management practices. The primary constraint with this scenario is that the City would have less direct operational control relative to the City-Owned and Operated scenario in adapting collection to higher levels of service.

6.3.2.4 Contract Collection Service with WUTC Control Over Rates and Billings

Environmental

Under this scenario, with the City contracting collection service and the WUTC controlling rates and billings, one opportunity for the City is to expand its control over greenhouse gas emissions related to vehicles, hauling, processing, and landfill disposal through provisions in hauler contracts. This would enable the City to set specific requirements to promote more sustainable practices and reduce GHG emissions in the contract, which the hauler would have to comply with (and include in their fees).

A constraint to this scenario is if the City enters into multiple hauler contracts, it may be more difficult to monitor and track progress towards the City's climate goals. Therefore, the City would need to carefully consider the number and scope of the hauler contracts to ensure that it can effectively monitor and enforce its sustainability requirements.

Financial

This scenario has a financial opportunity for the City to minimize oversight and administrative costs related to rate setting for waste collection services as compared to Contract Collection Service with City Rate Setting Control option. By contracting a private hauler and the WUTC controlling rates, the City can outsource the operational and administrative tasks related to waste collection, which could lead to cost savings.

The constraints to consider include the need for City resources to manage the contracting and administrative tasks which may increase rates to customers over the Status Quo. Additionally, the City would have no control over the rate setting and solid waste management funding or direct billing and outreach to residents, which would limit the City's ability to cover costs for solid waste management programs, staffing and administrative costs and to directly engage with the community on waste management issues.

Social and Equity Considerations

From a social and equity perspective, the City has the opportunity to directly contract with a collection hauler to promote waste diversion and provide for sustainable waste management services that are accessible to all members of the community, regardless of income or social status.

However, in this scenario, as with the Status Quo and not having direct control or relationship with solid waste customers in billing, it can be more difficult for the City to gauge and ensure that all members of the community have access to safe and sustainable waste management services. It can also be challenging for the City to communicate important information or changes regarding waste management services, or to receive feedback from residents about their needs and concerns.

Regulatory Compliance and Planning Goals

As discussed under the Status Quo, with the WUTC in control over rates and billings, the WUTC is in alignment with regulatory oversight within State standard practices and requirements. The City has an opportunity to achieve climate action and solid waste management goals that are more aggressive than state regulations through contract provisions with the collection provider. Legal and procedural requirements/implications need to be evaluated and considered for City taking over control of collection.

Level of Service

If the City contracts out collection service and the WUTC controls rates and billings, one of the main opportunities is the ability to directly increase levels of service by collection service line, as well as the possibility of mandatory collection, which would help improve waste diversion rates.

A constraint of this option is that the City would have less operational control relative to City-Owned/Operated over adapting collection to higher levels of service. This could be problematic if the City's goals or needs change over time and require a more customized approach.

7.0 FINDINGS AND NEXT STEPS

7.1 Summary of Findings and Next Steps

In identifying various regulatory, programmatic, and collection management options for the City to consider in meeting its solid waste management goals, there were many opportunities identified during this exploratory assessment that achieved most of the evaluation criteria goals for environmental, financial, social and equity, regulatory compliance and planning, and level of service considerations. Opportunities for meeting solid waste management goals for increasing waste diversion and climate action goals could be achieved through regulatory and programmatic options while meeting financial goals for funding solid waste programs, staffing needs and administration costs were best met with collection management options that include control over rate setting. The biggest constraints identified for the City in achieving some of its solid waste management goals are the lack of existing solid waste governance, the need for additional resources and associated funding and potential increases in rates to customers to improve solid waste management services.

The following summarizes the key take-aways for the regulatory, programmatic, and collection management options identified for the exploratory assessment of improving solid waste management for the City.

Regulatory Options:

Regulatory options are those that require an ordinance or other municipal regulatory authority to implement. Mandatory Three Stream Collection Service and a C&D Ordinance were regulatory options identified that best achieved evaluation criteria goals. Once programs are established, contamination enforcement is another regulatory option that can be implemented to increase diversion. Those options reduce environmental impacts and align with Climate Action Plan (CAP) goals by increasing diversion from disposal, thereby, reducing GHG emissions. They also provide social benefits of supporting behavior change in waste reduction and recycling, enhance local community zero waste efforts and sustainability, and align with regulatory requirements and planning goals for waste diversion and reduction. The mandatory three stream collection option provides enhanced levels of service to meet climate action and waste diversion goals and can be regulated through an ordinance or through directly contracting collection services. Some of the key constraints or challenges with these regulatory options are increased fees to rate payers, resources and funding needed to implement the programs and potential public opposition to mandates.

Programmatic Options:

Programmatic options are policies, programs or initiatives that don't require a regulatory action to implement. The highest priority programmatic option is increased involvement in the County's planning process, in particular its Solid and Hazardous Waste Management Plan update for compliance with the State's 2022 Organics Management Law (HB 1799). All 10 of the programmatic options evaluated for the exploratory assessment provide opportunities for diverting waste from landfill disposal which aligns with the City's CAP for the reduction of GHG emissions. The majority of the programs evaluated promote behavior change, waste reduction and diversion, and support sustainable waste management. The implementation of public outreach and education components in each of the programs is key to their success. Community involvement and/or stakeholder engagement will be necessary, requiring City resources to obtain stakeholder and public input. There may be unwillingness from stakeholders to provide feedback and there may be public resistance to programs with cost impacts. Each of the programmatic options supported

regulatory compliance and helped achieve solid waste planning goals for increasing diversion from landfills. The lack of existing solid waste management governance and potential higher costs to customers are constraints with implementing new/proposed initiatives. Implementation of all the programmatic options would build on or enhance existing services requiring additional resources and funding and some would require coordination with the existing hauler or control of collection services.

Collection Management Options: There were four options considered for collection management in the City:

Status Quo Collection: The status quo is Bainbridge Disposal providing collection service to residential and commercial customers in the City under a State certificate with rates regulated by the Washington Utilities and Transportation Commission (WUTC). Under the status quo, there is opportunity for the City to achieve its climate action and solid waste management goals with improved level of service through regulatory action such as a City ordinance which the existing hauler would have to comply with. Under the status quo, the WUTC is in alignment with regulatory oversight and compliance requirements of the State. The constraints under the status quo are with the lack of control over rate setting and limits on meeting financial needs for City solid waste management funding for programs, staffing and administrative costs. .

City-Owned and Operated Collection: While this option would provide increased control over sustainable materials management to achieve the City's climate action goals and control over rate setting to meet the City's solid waste management financial goals to fund programs, staffing and administrative costs, it would require substantial resources and most likely be a less efficient operation than what could be offered by a private contractor with an established fleet and operating beyond the City. This would likely result in higher costs and potentially a greater operational carbon footprint than other options. Legal and administrative requirements for taking control over collections from the WUTC need to be further evaluated to fully assess constraints of this option.

Contract Collection Service with City Rate Setting Control: Taking regulatory and rate-setting control from the WUTC and contracting out service can provide many of the opportunities of a City-owned and operated system to meet financial goals and may be easier to provide regulatory oversight than the status quo option in achieving climate action and level of service goals, without the need for the City to make any significant investments and potentially maintain a higher efficiency through a private contractor. By retaining control over rate-setting and conducting regular financial reviews, the City would be responsible for assessing fair and reasonable costs/rates to residents, billing and contract administration which would require additional resources and likely increased costs/customer rates over the status quo. Legal and administrative requirements for taking control over collections from the WUTC need to be further evaluated to fully assess constraints of this option.

Contract Collection Service with WUTC Control Over Rates and Billings: A final option and consideration is for the City to contract out collection service with WUTC control over rates and billing. This would provide the City with contractual control over the level of service and operations without the requirements of governance over rate setting or the investment in a City owned and operated collection system. This option would provide less control over the cost and financial aspects of the collection operation and limitations on funding City solid waste management costs but could help with social and public acceptance of potential rate increases. Legal and administrative requirements for taking control over collections from the WUTC need to be further evaluated to fully assess constraints of this option.

The following Table 7-1 lists the options identified and evaluated for improving the City's solid waste management system and proposed next steps in order of proposed implementation timeline and those best meeting the evaluation criteria goals.

Table 7-1: Identified Regulatory, Collection and Programmatic Options for Improving Solid Waste Management

Options	Proposed Next Steps and Timing
Solid Waste Management (SWM) Planning	<ul style="list-style-type: none"> Appoint City staff to participate in County Solid Waste Advisory Committee to report on County regional planning efforts (Q2/Q3 2023) Develop City specific strategies/implementation plan to identify staffing and budgetary resources, implementation steps and timing for improved SWM (Q3/Q4 2023)
Further Evaluate Collection Management Options	<ul style="list-style-type: none"> Meet with BD to discuss achieving City solid waste, climate action and financial goals under status quo system. (Q2/Q3 2023) Evaluate process, requirements and need for City contracting collection services (Q3/Q4 2023)
Public Outreach and Education	<ul style="list-style-type: none"> Develop public and stakeholder outreach and education strategies and plan(s) for City solid waste management programs, policies and regulatory requirements to be implemented (ongoing) Conduct initial public outreach for changes in collection service levels 3 months prior to implementation (Q3 2023) Conduct annual surveys to gauge public satisfaction of solid waste services
Waste Audits	<ul style="list-style-type: none"> Conduct four-season waste audit (Q3 2023) to understand what is being disposed and/or diverted
Mandatory 3-Stream Waste Collection	<ul style="list-style-type: none"> Develop ordinance to mandate 3-stream waste collection (Q4 2023)
Congregated Waste Receptacles	<ul style="list-style-type: none"> Conduct options analysis and develop strategy for congregated waste receptacle space (Q4 2023)
Narrow Street Collection	<ul style="list-style-type: none"> Conduct options analysis and develop strategy for narrow street collection (Q4 2023)
Community Partnerships	<ul style="list-style-type: none"> Facilitate community partnerships with local organizations (Q4 2023)
Contamination Enforcement	<ul style="list-style-type: none"> Depends on mandatory 3-stream collection service and results of waste audits.
Edible Food Recovery	<ul style="list-style-type: none"> Facilitate partnerships for local food recovery organizations (Q4 2023)
Food Donation Tracking	<ul style="list-style-type: none"> Facilitate partnerships with local organizations for food donation tracking (Q4 2023)
Compost Procurement Ordinance	<ul style="list-style-type: none"> Adopt compost procurement ordinances and report purchases to the Department of Ecology in 2024
C&D Ordinance	<ul style="list-style-type: none"> Prepare options analysis and strategy for C&D waste management (Q1 2024) Prepare ordinance for C&D waste management (Q3 2024)
HHW and E-Waste Program Enhancement	<ul style="list-style-type: none"> Prepare strategy/ program for improved HHW and E-waste collection (2024)
Reuse Business Support	<ul style="list-style-type: none"> Facilitate community partnerships with local organizations (2024)

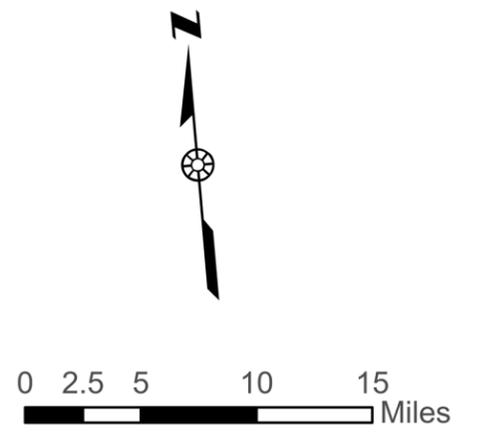
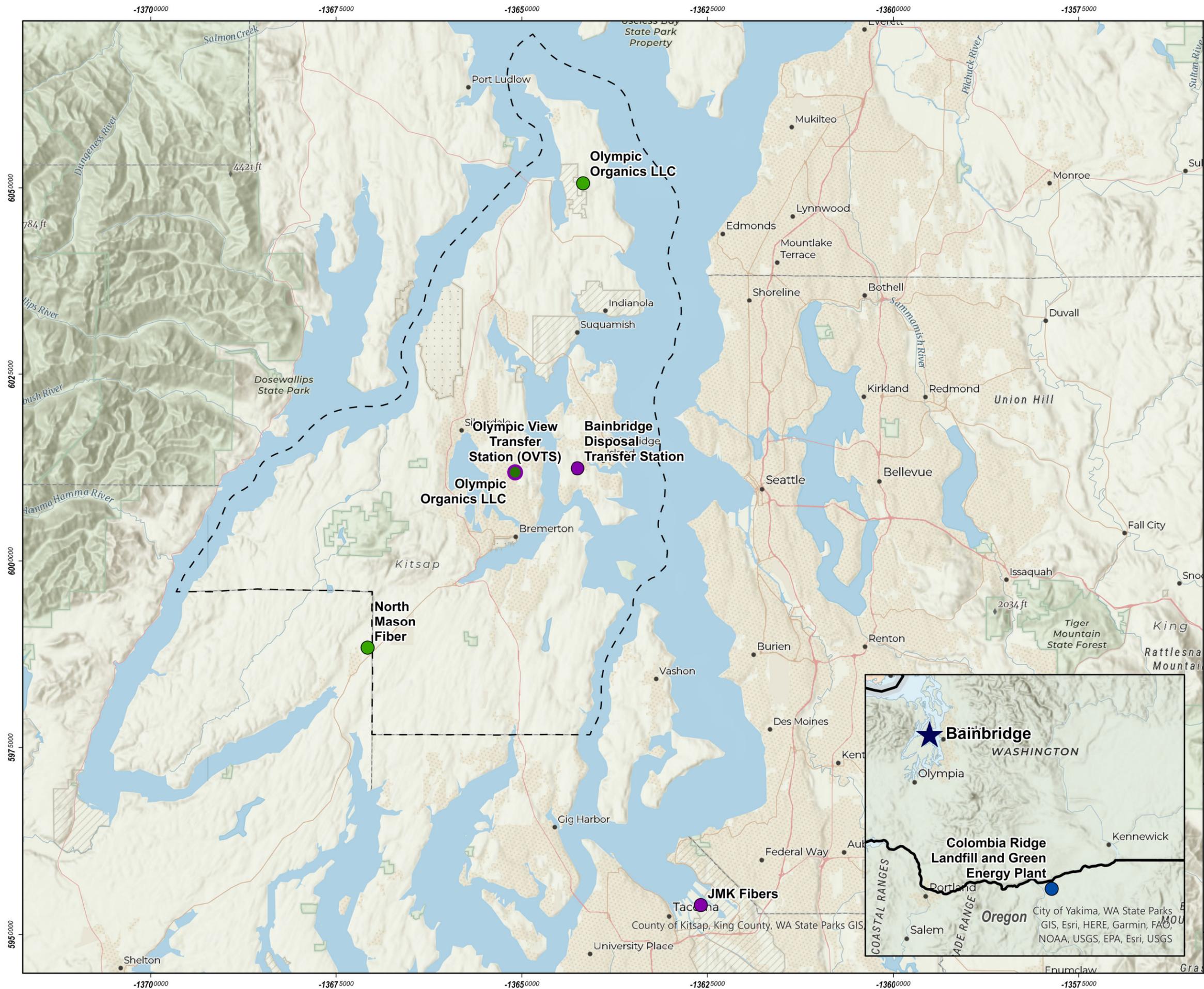
In implementing next steps, further evaluation is needed to assess the requirements (i.e. procedural, legal), resources (i.e. financial, staffing), priorities and recommended actions for implementation of the collection, regulatory and programmatic options evaluated in this exploratory assessment. In particular, further review is recommended of the process, legal requirements/implications, resources and cost-benefit for the City contracting collection services and transitioning from WUTC regulatory authority. The proposed timing for implementation presented in Table 1 will depend on further evaluation of options and City resources.

7.2 Keys to Success

While there is wide variation between the options evaluated in terms of details, the most successful programs have the following in common:

- **Consistency:** minimize changes to program users over time.
- **Strong education programs and programs oriented toward behavior change:** tailored to each sector, sufficient staff to answer questions and engage program users “beyond the brochure”
- **Convenience:** make it easy to divert recyclables and organics.
- **Mandatory service and enforceable regulations:** requires appropriate service levels and participation requirements and sufficient staff for inspections (City staff or contracted hauler).
- **Monitor and measure:** establish and provide resources for tracking systems to produce metrics that will gauge program progress and identify areas for improvement (e.g., tonnage tracking, waste audits, participation levels).
- **Organics kept separate from trash:** source separated programs provide pre-sorting value and the product of mixed waste processing is difficult to market; higher value products come from cleaner feedstocks; mixed waste processing may be useful to capture residual recyclables once the organics programs is fully mature.
- **Establish processing capacity before establishing collection:** it is important to have processing capacity confirmed, and to know the types of materials that can be accepted by that facility before making changes to the collection system.
- **Back up processing capacity:** multiple contracts or facilities is optimal to provide continuous coverage in case of facility closures.

MAPS



Legend

- Washington State Boundary
- Kitsap County

Facility Type

- Composting
- Composting/Transfer/Materials Recovery Facility
- Landfill
- Transfer/Materials Recovery Facility



February 2023

City of Bainbridge, Public Works Department

Solid Waste Management System Evaluation

Regional Overview

Figure 1

ATTACHMENT 1: HB 1799 SUMMARY LIST OF REQUIREMENTS

Attachment 1: HB 1799 Summary List of Requirements

	Jurisdictions	Businesses	Department of Ecology
2023	<p>By January 1, the following cities or counties shall adopt a compost procurement ordinance to implement RCW 43.19A.120:</p> <p>(a) Each city or county with a population greater than 25,000 residents as measured by the office of financial management using the most recent population data available</p> <p>(b) Each city or county in which organic material collection services are provided under chapter 70A.205 RCW.</p> <p>A city or county that newly exceeds a population of 25,000 residents after January 1, as measured by the office of financial management, must adopt an ordinance under subsection (2) of Section 701 no later than 12 months after the office of financial management's determination that the local government's population has exceeded 25,000.</p>		<p>Beginning July 1, and each July 1st thereafter, the department must determine which counties and any cities preparing independent SWMPs:(i) Provide for businesses to be serviced by providers that collect food waste and organic material waste for delivery to solid waste facilities that provide for the organic materials management of organic material waste and food waste; and (ii) Are serviced by solid waste facilities that provide for the organic materials management of organic material waste and food waste and have capacity to accept increased volumes of organic materials deliveries.</p> <p>The department of ecology must contract with a third-party consultant to conduct a study of the adequacy of local government solid waste management funding, including options and recommendations to provide funding for solid waste programs in the future if significant statewide policy changes are enacted. The department must submit the report, including findings and any recommendations, to the appropriate committees of the legislature by July 1.</p>
2024	<p>When newly developing, updating, or amending a comprehensive solid waste management plan developed under this chapter, after July 1, each local comprehensive SWMP must consider the transition to the requirements of section 102 of 70A.205 RCW, and each comprehensive solid waste management plan implemented by a</p>	<p>Beginning January 1, a business that generates at least eight cubic yards of organic material waste per week must arrange for organic materials management services specifically for organic material waste;</p>	<p>The department must begin enforcing the requirements of 70A.455 RCW by July 1.</p>

	<p>county must identify:</p> <p>The priority areas within the county for the establishment of organic materials management facilities.</p> <p>(ii) Organic materials management facility volumetric capacity required to manage the county's organic materials in a manner consistent with the goals of section 101 of this 70A.205 RCW.</p> <p>By December 31, and each December 31st of even-numbered years thereafter, each city or county that adopts an ordinance under subsection (1) or (2) of section 701 must submit a report covering the previous year's compost procurement activities to the department of ecology that contains the following information:</p> <p>(a) The total tons of organic material diverted throughout the year (b) The volume and cost of compost purchased throughout the year; and (c) The source or sources of the compost.</p>		
<p>2025</p>	<p>Development regulations to implement comprehensive plans under this chapter that are newly developed, updated, or amended after January 1, must allow for the siting of organic materials management facilities in the areas identified in RCW 37 70A.205.040(3)(a)(i) to the extent necessary to provide for the establishment of the organic materials management volumetric capacity identified under RCW</p>	<p>Beginning January 1, a business that generates at least four cubic yards of organic material waste per week must arrange for organic materials management services specifically for organic material waste.</p>	<p>By January 1, and in consultation with the office of the attorney general, the department must research and adopt several model ordinances for optional use by counties and cities that provide for model mechanisms for commercial solid waste collection and disposal that are designed, in part, to establish a financial disincentive or other disincentives for the generation of organic waste and for the ultimate disposal of organic materials in landfills. The model</p>

	70A.205.040(3)(a)(ii)		ordinances must be designed to provide options that might be preferred by jurisdictions of different sizes and consider other key criteria applicable to local solid waste management circumstances
2026		Beginning January 1st , a business that generates at least four cubic yards of solid waste per week shall arrange for organic materials management services specifically for organic material waste, unless the department determines, by rule, that additional reductions in the landfilling of organic materials would be more appropriately and effectively achieved, at reasonable cost to regulated businesses, through the establishment of a different volumetric threshold of solid waste or organic material waste than the threshold of four cubic yards of solid waste per week.	
2027	Beginning January 1 , in each jurisdiction that implements a local solid waste plan under RCW 70A.205.040: (a) Source-separated organic solid waste collection services must be provided at least every other week or at least 26 weeks annually to all residents; and nonresidential customers that generate >.25 cubic yard per week of organic materials for management; and (b) All organic solid waste collected from residents and businesses under (a) of subsection (1) of Section 102 must be managed through		

	<p>organic materials management.</p> <p>(2) A jurisdiction may charge and collect fees or rates for the services provided under subsection (1) of section 102, consistent with the jurisdiction's authority to impose fees and rates under chapters 35.21, 35A.21, 36.58, and 36.58A RCW.</p> <p>When newly developing, updating, or amending a comprehensive SWMP developed under this chapter, after January 1, each local comprehensive solid waste management plan must be consistent with the requirements of section 102 of this act.</p>		
<p>2030</p>			<p>Beginning January 1, the department may adopt a rule to require that the provisions of section 102 apply in the jurisdictions identified in (b) and (c) of subsection (3), but only if the department determines that the goals established in section 101(1) of this act have not or will not be achieved.</p>

ATTACHMENT 2: BAINBRIDGE DISPOSAL TRANSFER STATION LIST OF MATERIALS ACCEPTED



Recycle Right

only these items



Plastic bottles, jugs, jars and dairy tubs

no lids



Paper and cardboard



Glass bottles and jars

no lids



Metal cans

no loose lids



NO plastic bags



Recycle.KitsapGov.com



Garbage

Not accepted for curbside or facility recycling



Plastic Trays and Clamshells



Plastic Cups



Cartons



Styrofoam™



Paper Towels, Napkins and Plates



Paper Cups



Utensils and Straws



Greasy Pizza Boxes



Frozen Food Containers



Coffee Pods



Foil Plastic



Aluminum Foil



Shredded Paper



Prescription Bottles



Lids

Ignore symbols - doesn't mean recyclable



Other

Special drop-off sites for these items plus electronics, appliances, yard waste and more



Plastic Bags and Wrap



Batteries



Household Hazardous Waste



Scrap Metal

ATTACHMENT 3: EXISTING SOLID WASTE MANAGEMENT INFRASTRUCTURE FACT SHEETS

Olympic View Transfer Station (OVTS)

Waste Management of Washington, Inc. (WMW) operates the Olympic View Transfer Station (OVTS) under the Transfer Station Development and Waste Disposal Project Agreement (the Agreement) KC-350-21 with Kitsap County Department of Public Works (KCPW). The Transfer Station accepts residential, commercial, and industrial solid waste and recyclable materials.

This facility has two areas, a paid drop-off area for fee-based waste and a free recycling yard. Customers with sharps and all fee-based waste must check in at the scale attendant's booth for disposal. Items accepted for free in the recycle yard include limited household hazardous waste and free recyclable items (clothing, cardboard, scrap metal, and mixed glass, cans, paper and plastics).



ADDRESS: 9380 SW Barney White Road, Bremerton, WA 98312

WEBSITE: [Olympic View Transfer Station - Bremerton, WA \(kitsapgov.com\)](http://kitsapgov.com)

HOURS: 8am-5pm. Closed New Year's Day, Thanksgiving, and Christmas. Closed at 3pm on Christmas Eve.

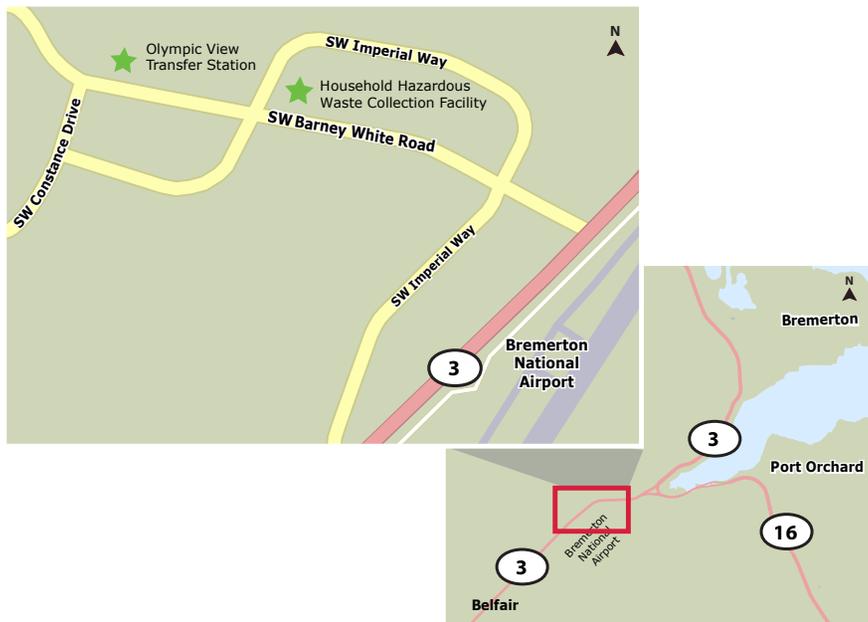
PHONE: 360-337-5777 – Kitsap County Public Works Administration

MATERIALS COLLECTED: MSW, C&D, Tires, Yard waste/Green waste – Receives BD's solid waste and commercial generated organic waste.

METHOD OF PROCESSING: OVTS accepts source separated recyclables from public and small business customers, as well as self-haul customers. Facility contractor is responsible for weighing, routing, processing, loading, and preparing Acceptable Waste for Transport and Disposal. Compacted and bailed materials are transferred to the following facilities (Plan of Operations, 2017).

- Columbia Ridge Landfill and Recycling Center (CRLRC), Arlington, Oregon;
- Chemical Waste Management of the Northwest (Chem-Waste), Arlington, Oregon;
- Recycling, end-use, or re-processing facilities permitted in accordance with applicable regulations.

OLYMPIC VIEW TRANSFER STATION



ADDRESS: 9380 SW Barney White Road, Bremerton, WA 98312

WEBSITE: kcowa.us/dropoff **PHONE:** Kitsap1: 360.337.5777

HOURS: 8 a.m. to 5 p.m. daily. Closed New Year's Day, Thanksgiving, and Christmas. Closed 3 p.m. Christmas Eve.

PAYMENT: Visa or Mastercard with owner present and valid ID.

RESTRICTIONS: No vehicles, vehicle parts, motors, engine parts, riding lawnmowers, liquids, commercial appliances, or hazardous wastes. Asbestos, contaminated soils, and creosote lumber have special disposal requirements. See kcowa.us/dropoff.

DIRECTIONS:

From the north and east (Bremerton, Tacoma): From Gorst, travel south on State Highway 3 toward Belfair. Take SW Barney White Rd. exit. Go straight for 0.8 miles. Signs for Olympic View Transfer Station are on the right.

From the south (Belfair): From Belfair, travel north on State Highway 3 toward Gorst. Turn left at the stoplight onto SW Imperial Way. Turn left on SW Barney White Rd. Go straight for 0.8 miles. Signs for Olympic View Transfer Station are on the right.



Kitsap County | Kitsap1: 360.337.5777 | Recycle.Kitsap.Gov

Items collected inside transfer station

Visit kcowa.us/dropoff for waste descriptions, disposal instructions and a list of restricted items.

SOLID WASTE*	EFFECTIVE JANUARY 2023**
Minimum fee	\$41 (tax included)
Garbage/solid waste	\$118 per ton
Asbestos	\$334.16 per ton
Bulky waste	\$220.19 per ton
Contaminated soils	\$88.35 per ton
Creosote-treated lumber	\$105.36 per ton
Needles (sharps) sealed in quart-sized FDA approved sharps container, bleach, detergent, or 2 liter-soda bottle and labeled "BIOHAZARD."	No charge – limit 3 acceptable containers per day. Business sharps not accepted.
RECYCLABLE WASTE	
Appliances	\$28 each
E-Cycle televisions, computers, monitors, laptops, e-readers, portable DVD players	No charge
Tires, passenger (17" or less)	\$13 each
Tires, commercial (18" - 22")	\$15 each
Clean yard waste (weekends only)	\$129.25 per ton
Unsecured/uncovered load fee	\$10 additional fee

*Additional WA Solid Waste Collection Tax (3.6%) applied to waste transactions. Tax does not apply to recyclable waste. **Subject to change. Visit kcowa.us/garbage for current fees.

Items collected for no charge in recycling area

Only these items: Items must be empty, clean, dry and loose (not bagged).



* Must lift item up stairs and into container. Remove nonmetal parts. No metal items containing batteries, gas, oil, paint or other fluids. No rusty items, cables or vehicle parts.

What Do I Do With It?
Recycle.Kitsap.Gov

NEW FEES AT COUNTY GARBAGE FACILITIES

Effective January 2023

Kitsap County is adjusting disposal fees to cover the cost of providing solid waste facilities and services to our community. For more information on current and future fees approved through 2027 and how we use these fees, visit kcowa.us/garbage or contact Kitsap1 at 360.337.5777.

RECYCLING AND GARBAGE FACILITIES: HANSVILLE, OLALLA, AND SILVERDALE

		1/1/2023	
Garbage cans	<i>First can</i>	\$14.00	<i>Tax included</i>
	<i>Each additional can</i>	\$8.00	<i>Tax included</i>
32 gal.=1 can, 64 gal. can=2 cans, 96 gal. can=3 cans			
Garbage (loose)	<i>Per cubic yard</i>	\$48.88	
Mattress, box spring, recliner	<i>Each</i>	\$16.00	
Sofa	<i>Each</i>	\$54.00	
Sofa with bed	<i>Each</i>	\$66.00	
Roofing, drywall	<i>Per cubic yard</i>	\$100.00	
Appliances	<i>Each</i>	\$28.00	
Unsecured/uncovered load fee	<i>Per load</i>	\$10.00	

WA Solid Waste Collection Tax (3.6%) will be added to all solid waste disposal transactions. No tax is added to appliances; items are recycled.

OLYMPIC VIEW TRANSFER STATION

		1/1/2023	
Garbage/solid waste	<i>Per Ton</i>	\$118.00	
Minimum fee	<i>Per load</i>	\$41.00	<i>Tax included</i>
Yard waste	<i>Per Ton</i>	\$129.25	
Appliances	<i>Each</i>	\$28.00	
Tires - passenger vehicle	<i>Each</i>	\$13.00	
Tires - commercial truck	<i>Each</i>	\$15.00	
Bulky wastes	<i>Per Ton</i>	\$220.19	
Asbestos	<i>Per Ton</i>	\$334.16	
Contaminated soils	<i>Per Ton</i>	\$88.35	
Creosote-treated lumber	<i>Per Ton</i>	\$105.36	
Unsecured/uncovered load fee	<i>Per load</i>	\$10.00	

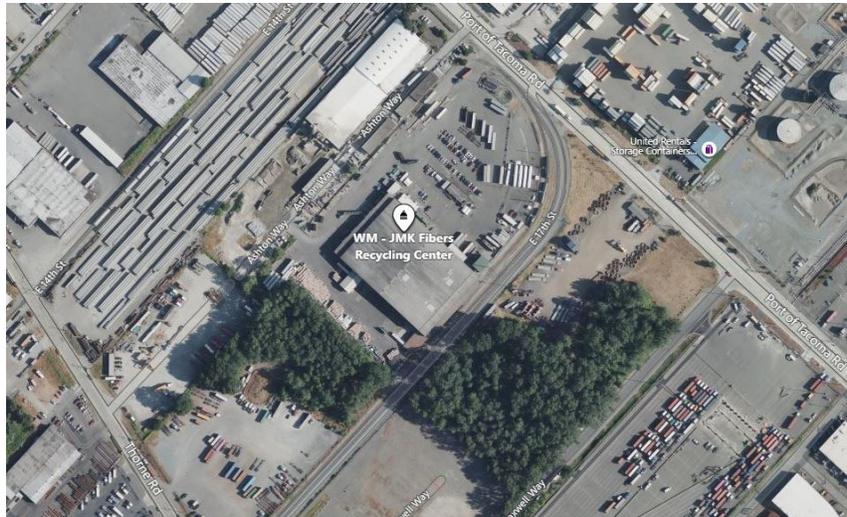
WA Solid Waste Collection Tax (3.6%) will be added to all solid waste disposal transactions. No tax is added to appliances, yard waste or wood waste; items are recycled.

3166 (11/22)



WM JMK Fibers

JMK Fibers is a WM facility which sorts and processes single stream recyclables at their materials recovery facility (MRF) collected from King County, Kitsap County, Pierce County and several northwest states.



ADDRESS: 1440 Port of Tacoma Road, Tacoma, WA 98421

WEBSITE: [Waste Management JMK Fibers - Tacoma, Washington - Waste Management Northwest \(wmnorthwest.com\)](http://wmnorthwest.com)

HOURS: Monday-Friday, 6 am - 5 pm (for deliveries of materials) **PHONE:** 253-272-6208

MATERIALS COLLECTED: Aluminum, Colored and Natural HDPE bottles, Mixed paper, Glass, Old corrugated containers (OCC), Other plastics per contracts, Polyethylene (PET) bottles, Tin— Receives BD's recycling loads.

METHOD OF PROCESSING: WM JMK Fibers is a transportation logistics hub with access to domestic and international markets. JMK is positioned to serve domestic markets via long-haul trucks, rail, and barge capabilities. WM JMK facility sorts and processes single stream recyclables at their materials recovery facility (MRF) collected from King County, Kitsap County, Pierce County and several northwest states.

Facility & processing capabilities up to:

- 180,000 tons per year
- 780 tons per day
- 60 tons per hour
- 20 pounds every second

WASTE MANAGEMENT JMK FIBERS



Waste Management JMK Fibers is a state-of-the-art recycling facility that sorts and processes recyclables to reduce landfill waste and ensure recyclables are made into new products. JMK is a single stream material recovery facility (MRF) that receives recyclables collected from King County, Kitsap County, Pierce County and several northwest states.

INVESTING IN THE FUTURE OF RECYCLING



WM invested millions of dollars in 2019 to meet the challenges in global recycling. Adding two paper screens, four optical scanners and an additional plastic sorter produces cleaner recycling. This is critical because end markets now require cleaner recycling (less contamination). Using technology to efficiently and effectively sort out garbage and non-recyclable items ensures the recyclables that leave JMK will be made into new products. It's all part of keeping local recycling programs strong and healthy!

Our new equipment provides these improvements:

- Mechanically sorts contamination from paper using optical scanners.
- Produces high-quality paper feedstock for domestic and export markets.
- Minimizes downtime to remove “tangles,” like wire and hoses, by installing non-wrapping fiber screens.

The new equipment works seamlessly with JMK's other advanced sorting technologies, including paper magnets, optical sorters for plastic, eddy current separators for aluminum, a tin magnet, seven mechanical screens, four balers, a plastic film capture system and an air separator for glass.

WM JMK FIBERS

1440 Port of Tacoma Road
Tacoma, WA 98421
Phone 253.272.6208
Fax 253.272.3442
Monday – Friday 6 am to 5 pm

EMPLOYEES

Total employees: 101
Administration & support: 10
Equipment operators: 18
Maintenance: 8
Sorters & quality control: 30 per shift

BUILDING & PROPERTY

90,000 square feet on 10 acres

FACILITY & PROCESSING CAPABILITIES

Up to:
180,000 tons per year
780 tons per day
60 tons per hour
20 pounds every second

OPERATIONS & EQUIPMENT

Scale and recording program:

3 90-foot scales
6 optical scanners
Paper magnet
Tin magnet
Eddy current separator for aluminum
7 mechanical screens
2 Harris balers
2 Balemaster balers
Air separator for glass

WINNING THE BATTLE AGAINST CONTAMINATION

Reducing contamination before collection is key to better recycling. Remember:

- Recycle paper, cardboard, aluminum cans and plastic bottles.
- Make sure your recycling is clean, dry and loose. No plastic bags.
- Keep all food and liquids out of your recycling.
- Visit [RecycleRight.com](https://www.recycleRight.com) for more tips.

In addition to new technology investments, Waste Management takes several steps to reduce contamination as part of ongoing operations:

- Inspecting incoming trucks and rejecting heavily contaminated loads.
- Using manual sorts followed by automated sorting technologies.
- Removing contamination with stringent quality control processes before material enters the final bunker for baling.
- Conducting a second quality control regimen after baling to ensure the lowest possible levels of contamination.

ACCEPTABLE MATERIAL

Aluminum
Colored and natural HDPE bottles
Mixed paper
Glass
Office Pak
Old corrugated containers (OCC)
Other plastics per contracts
Polyethylene (PET) bottles
Tin

UNACCEPTABLE MATERIAL

Ammunition
Batteries
C & D material
Medical waste
Explosives
Fuels
Garbage
Hazardous material
Oils
Waxed paper products
Wet paper products

GETTING RECYCLABLES TO MARKET

WM JMK Fibers is located at the Port of Tacoma, a transportation logistics hub with access to domestic and international markets. Located next to Interstate 5, JMK is positioned to serve domestic markets via long-haul trucks. We also have rail and barge capability.



WM invested several million dollars in 2019 to meet the changes in global recycling. Adding two paper screens, four optical scanners and an additional plastic sorter produces cleaner recycling.



MEDIA CONTACT

Gary Chittim
Communications Manager
gchittim@wm.com
425.247.6940



Columbia Ridge Landfill and Green Energy Plant

Columbia Ridge provides safe and professional disposal services for communities, businesses and industries primarily from Oregon and Washington. Located in north central Oregon, the site provides convenient truck and rail access. The site’s dry climate and unique geology support superior environmental performance, while the rural locale allows for a 10,000-acre buffer sustainably managed for agriculture and wildlife. Columbia Ridge is also a platform for wind power and green technologies that use waste to generate renewable energy.

Columbia Ridge is a modern Subtitle D landfill that accepts primarily municipal solid waste (household waste) as well as industrial and special wastes. It is engineered with overlapping environmental protection systems that meet or exceed rigorous state and federal regulations and are subject to highly regulated monitoring and reporting requirements.

Columbia Ridge uses sophisticated monitoring protocols to verify that the site’s environmental protection systems are operating properly. Monitoring data gathered by company and independent professionals is submitted to the Oregon Department of Environmental Quality and the US Environmental Protection Agency.

Containment Design

Columbia Ridge has a multi-layer composite liner system that includes an engineered clay barrier and a 60-mil, high-density polyethylene membrane to ensure that waste and wastewater (leachate) are contained and isolated from soil and groundwater.

Groundwater Monitoring

The site’s geology and hydrogeology provide unique natural protections because the groundwater is approximately 200 feet deep and separated from the waste by low permeability soils. Groundwater is monitored at seven wells, both upgradient and downgradient of the waste disposal footprint.

COLUMBIA RIDGE LANDFILL

18177 Cedar Springs Lane
Arlington, OR 97812

wmnorthwest.com/landfill/columbiaridge

HOURS OF OPERATION

Monday – Friday, 6 am – 3:30 pm

YEAR OPENED

1990

PROJECTED LIFE REMAINING

120 years

FACILITY ACREAGE

12,000 acres

PERMITTED FOOTPRINT

700 acres

REMAINING PERMITTED CAPACITY

320 million tons

TONS PROCESSED ANNUALLY

2.8 million in 2021

OWNERSHIP

Waste Management Disposal Services of Oregon

PERMIT TYPE AND PERMIT

DEQ Solid Waste Permit #391

EMPLOYEES

140



Landfill Gas Management

Columbia Ridge manages landfill gas to generate renewable energy, reduce emissions, and prevent odor. The system collects 9,400 cubic feet per minute of landfill gas through more than 100 wells. A portion of the gas is sent to an on-site energy plant, with the remaining gas managed by flares per federal requirements.

Leachate Collection and Treatment

The leachate collection and treatment system consists of a highly permeable gravel drainage layer covering the entire landfill base, with perforated pipes at low points to collect and route leachate to a double composite-lined evaporation pond. It also includes a recirculation process that pumps leachate from the pond back into the landfill, to accelerate waste decomposition and enhance landfill gas production.

Acceptable Material

Abrasive blast media	Construction and demolition (C&D) debris
Agricultural wastes	CERCLA wastes
Animal carcasses	Dredged wet sediments
Asbestos-containing material (friable and non friable)	Filter cake
Auto shredder residue	Incinerator ash
Biosolids	Industrial and special wastes
	Medical waste (treated)
	Treated wood

Unacceptable Material

Appliances	Hazardous wastes
Batteries	Loose sharps
Discarded vehicles	Tires
Hazardous wastes	Used oil

Additional Services

Electronic waste recycling	Transportation services
Household recycling drop-off	White goods recycling
	On-site rail spur

Renewable Energy

The energy plant at Columbia Ridge uses landfill gas to generate renewable energy as part of WM's increasing focus on extracting value from waste. Gas collected from the landfill powers 12 engines to produce 12.8 megawatts of electricity—enough to power 12,500 homes in Seattle through an agreement with the City of Seattle.

In addition, Columbia Ridge is home to 92 wind turbines with the capacity to generate more than 150 megawatts.

CONTACT

Technical Support
TSC Portland
800-963-4776
TSCwestern@wm.com

COMMUNITY RELATIONS

Jackie Lang
503-705-0007
jjlang@wm.com

COMMUNITIES SERVED

Oregon
Washington
Idaho
Alaska
Canada



Community Partnerships

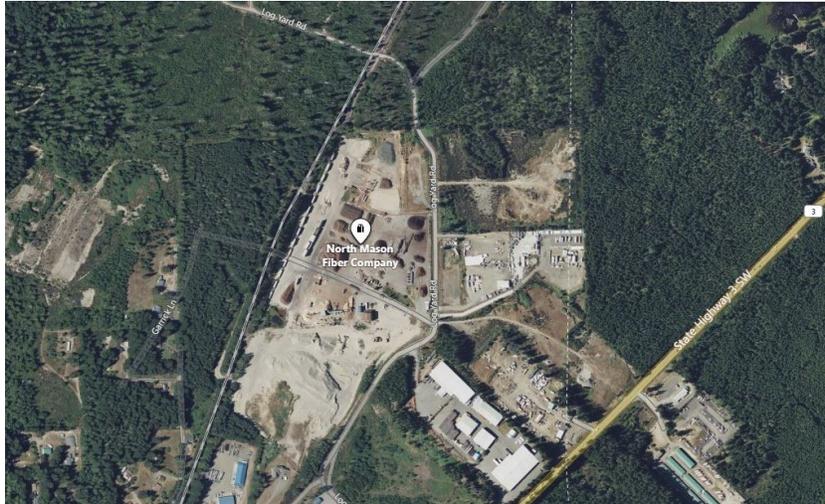
Columbia Ridge is proud to be a valued community partner in ways that are visible in every direction across the Gilliam County landscape:

- » **Family-wage Jobs:** Columbia Ridge provides 140 family-wage jobs with full benefits, training and development opportunities.
- » **Infrastructure and Economic Development:** Columbia Ridge pays Gilliam County an annual host fee to support essential public sector services, capital improvements and economic development. WM voluntarily initiated the host fee agreement in 1990 as a demonstration of community partnership. In 2021, WM paid Gilliam County \$5.2 million in host fees.
- » **Community Donations:** WM donates generously to support youth and community vitality across Gilliam County. WM's contributions totaled more than \$50,000 — largely to support the chambers of commerce in Arlington and Condon, the Gilliam County Fair, the WM Community Partnership Scholarship Program (college scholarships for local students).



North Mason Fibers

North Mason Fiber is the only permitted facility on the Kitsap and Olympic Peninsulas to produce truly organic compost, approved by the Washington State Department of Agriculture. In addition to organic composts, this facility also offers barks, wood chips, and sand and gravel for sale.



ADDRESS: N.E. 431 Log Yard Road Belfair, WA 98528

WEBSITE: [North Mason Fiber – Improving the quality of our NW lifestyle.](#)

HOURS: Monday thru Friday – 7:00 AM to 4:00 PM (last load accepted is at 3:30 PM) Saturday & Sunday – Closed

PHONE: (360) 275-0228

MATERIALS COLLECTED: Clean land clearing debris (stumps, brush, limbs, and other natural wood waste), yard waste (tree branches, grass clippings, etc.), construction wood debris (discarded lumber, wood scrap, pallets, plywood, particle board) – Receives BD’s combined yard waste and minimal residential food waste.

METHOD OF PROCESSING: This facility processes commercial and residential yard and wood waste. North Mason processes organic compost products available for purchase from the facility’s collected organic waste – in which the facility holds a permit from the Washington Department of Ecology to produce fish compost.

ATTACHMENT 4: EVALUATION MATRIX

**CITY OF BAINBRIDGE ISLAND
EVALUATION OF WASTE MANAGEMENT SERVICES**

TABLE 1

**SOLID WASTE MANAGEMENT OPTIONS
OPPORTUNITIES AND CONSTRAINTS EVALUATION**

	Environmental	Financial	Social	Regulatory Compliance and Planning Goals	Level of Service
Regulatory Options					
<p>Mandatory 3-Stream Waste Collection Services (Residential and Commercial)</p> <p>Require mandatory trash, recycling, and organic waste services for all residents, commercial generators, and City facilities. Ensure City planning reviews include accommodation for adequate collection service.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Reduces environmental impacts by increasing waste diversion and reducing landfill disposal. Diverting waste from landfill disposal aligns with climate action goals for reducing GHG emissions. Complies with state mandate requirements to divert organic waste from disposal. <p>Constraints:</p> <ul style="list-style-type: none"> Additional vehicles/vehicle-miles may be required to collect waste streams (increases carbon footprint). Increases localized traffic. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Potential grants from federal and state government to increase diversion of organics (collection and processing). <p>Constraints:</p> <ul style="list-style-type: none"> Additional resources and labor costs to implement a three-stream collection system including staff to develop collection requirements, measure and track waste diversion. Increases fee to the rate payer. Potential need for new and/or expanded facilities to process diverted materials. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Supports behavior change in waste reduction and diversion. Enhances sustainability. Enhances local community zero waste efforts. Meets best practices for waste management. Helps meet state requirements for diverting organic waste. Helps meet city climate action goals. <p>Constraints:</p> <ul style="list-style-type: none"> Requires outreach and education as well as infrastructure to promote behavior change. Property owners and commercial businesses may object to additional space to store receptacles. Increases localized traffic. Potential public opposition to additional cost to residents and businesses. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Helps meet state requirements for diverting organic waste. Helps meet city climate action goals. <p>Constraints:</p> <ul style="list-style-type: none"> Regulatory authority needed, such as a City ordinance or directly contracting collections. The city currently does not control the solid waste management system so has to take control over collection contracting. City ordinance needs to be promulgated which should include planning goals for diversion. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Builds on existing collection services. Requires organics/food waste to be collected and diverted. Streamlines collection and improves diversion (i.e. collection frequency of trash). City should lead by example by including service at public facilities/venues. <p>Constraints:</p> <ul style="list-style-type: none"> Ability to service narrow public roads is more challenging. Need for public outreach and education. Need for adequate facilities to process diverted materials.
<p>C&D Ordinance</p> <p>Develop C&D Waste Diversion Requirements and Policies for new and existing buildings (C&D Ordinance); Develop policies that support C&D recycling (ex. minimum diversion for C&D projects, dismantling of buildings, and preparation of waste management plans).</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Reduces environmental impacts by increasing waste diversion and reducing landfill disposal. Closes the circular economy loop by creating a usable product out of C&D. Increases landfill site life. Promotes reuse of building materials. <p>Constraints:</p> <ul style="list-style-type: none"> Additional vehicles may be required to collect waste streams (increases carbon footprint). May promote illegal dumping. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Potential grants from federal and state government to increase diversion of C&D (collection and processing). Collection of recycling fees for C&D activities. Creates new local jobs. <p>Constraints:</p> <ul style="list-style-type: none"> City resources (i.e., staff) required to develop, maintain, and implement program. Potential need for new and/or expanded facilities to process diverted materials. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Supports behavior change in waste reduction and diversion. Enhances sustainability. Enhances local community zero waste efforts. Meets best practices for waste management. Helps meet city climate action goals. <p>Constraints:</p> <ul style="list-style-type: none"> Requires outreach and education as well as infrastructure to promote behavior change. Potential public opposition for additional fees and processes to manage C&D waste. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides ability to increase overall diversion goals. Meets climate action goals and initiatives. <p>Constraints:</p> <ul style="list-style-type: none"> City ordinance needs to be promulgated, managed, and enforced. 	<p>Opportunities:</p> <ul style="list-style-type: none"> C&D industry would need to adhere to current BMPs for C&D recovery. Targets one of the largest waste streams. Provides residents and businesses ability to recycle C&D materials. <p>Constraints:</p> <ul style="list-style-type: none"> Need for public outreach and education. Need for adequate facilities to process diverted materials. Requires resources (i.e., staffing) to manage C&D program.
<p>Contamination Enforcement</p> <p>Implement a penalty for improper use of recycling and organics waste receptacles. If contaminated, materials may not be able to be recycled and end up being disposed.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Encourages proper waste diversion and reduction of landfill disposal. Diverting more waste from landfill disposal aligns with climate action goals for reducing greenhouse gas emissions. Provides ability to recycle additional materials due to less contamination. <p>Constraints:</p> <ul style="list-style-type: none"> Additional resources (i.e., vehicles and staff) may be required to conduct bin inspections (increases carbon footprint). Increases localized traffic. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Potential grants from federal and state government to increase diversion of recyclables and organics (collection and processing). Collection of contamination fees for enforcement activities. Creates new local jobs. <p>Constraints:</p> <ul style="list-style-type: none"> City resources (e.g., staff and cost of outreach material) required to enforce penalization for contamination. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Promotes proper behavior change in waste reduction and diversion. Enhances sustainability. <p>Constraints:</p> <ul style="list-style-type: none"> Requires outreach and education to promote behavior change. Increases localized traffic. Likely public opposition to bin inspections/privacy concerns and penalties. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Helps meet state requirements for diverting organic waste. Ability to increase overall diversion goals. Helps meet climate action goals and initiatives by reducing landfill disposal. <p>Constraints:</p> <ul style="list-style-type: none"> The City currently does not control the solid waste collection system so City ordinance or regulation needs to be promulgated. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Builds on existing collection services. Improves diversion. Supports community priorities. <p>Constraints:</p> <ul style="list-style-type: none"> Need for public outreach and education. City resources (i.e., staff) required to develop and enforce programs.

**CITY OF BAINBRIDGE ISLAND
EVALUATION OF WASTE MANAGEMENT SERVICES**

TABLE 1

**SOLID WASTE MANAGEMENT OPTIONS
OPPORTUNITIES AND CONSTRAINTS EVALUATION**

	Environmental	Financial	Social	Regulatory Compliance and Planning Goals	Level of Service
Programmatic Options					
<p>Solid Waste Management Planning</p> <p>Participate in the County’s solid waste management planning process and adhere to County SHWMP strategies. City staff representation on Solid Waste Advisory Committee (SWAC). The City can further planning efforts with a focused strategic plan that identifies, evaluates and develops short- and long- term strategies and options, with a detailed implementation plan, to best manage waste in the City in a manner consistent with regional County planning strategies and in alignment with City climate action goals. Develop community-based metrics and system for measuring performance.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides framework, goals, and targets for solid waste management that improves the environment. Identifies resource requirements. Identifies implementation schedule. <p>Constraints:</p> <ul style="list-style-type: none"> N/A 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides ability to offset disposal costs for solid waste services, through the implementation and promotion of waste reuse, reduction and recycling programs. Identifies costs and budgeting needs for planned solid waste services and programs. <p>Constraints:</p> <ul style="list-style-type: none"> Resources required to develop, implement, and maintain the plan. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Promotes behavior change in waste reduction and diversion. Supports sustainability. Supports local community zero waste efforts. Meets best practices for waste management. Provides opportunity for input from stakeholders (residents and businesses) <p>Constraints:</p> <ul style="list-style-type: none"> Resources required to develop the plan. Community involvement and/or stakeholder engagement needed to develop plan. Need for public outreach and education. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Establishes goals and targets for solid waste management to align with state and city mandates. Establishes baseline conditions for measuring progress in achieving solid waste management goals. Supports development of regulatory requirements. <p>Constraints:</p> <ul style="list-style-type: none"> May experience challenges with new/proposed initiatives. Need for public outreach and education. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Increases level of service for the community. Provides opportunity for City to influence level of service. Addresses statewide mandates and initiatives for City. <p>Constraints:</p> <ul style="list-style-type: none"> Need for public outreach and education. Need to develop cost structure and to recover costs.
<p>Waste Audits</p> <p>Perform regular waste composition audits (every 2-3 years) to gauge progress of meeting HB 1799 and Ordinance 2021-34.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides understanding of materials discarded by residents and businesses that can be targeted for recycling. <p>Constraints:</p> <ul style="list-style-type: none"> Incremental environmental impacts when conducting waste audits. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides understanding of waste management requirements and associated financial obligations to meet statewide mandates. <p>Constraints:</p> <ul style="list-style-type: none"> Financial resources required to conduct a waste characterization study. City does not control the waste management system. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides understanding of materials discarded by residents and businesses. Provides baseline information for public outreach and education. Can pair sorting event with community for educational purposes. <p>Constraints:</p> <ul style="list-style-type: none"> Sorting of waste may create public opposition from residents and businesses Challenges with collecting waste samples as City does not control the waste management system. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Gains understanding of waste management requirements to meet statewide mandates. Identifies and quantifies divertible and potentially divertible materials. Estimates required capacity for waste management facilities. Estimate environmental benefits (i.e., GHG reduction). <p>Constraints:</p> <ul style="list-style-type: none"> Coordination needed with waste hauler to collect waste samples as City does not control waste collection or disposal. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides ability to estimate level of service (e.g., routing, bin size, equipment needs, etc.). Identifies potential infrastructure needed to process material. Provides ability to monitor program performance. <p>Constraints:</p> <ul style="list-style-type: none"> Results are a snapshot in time.
<p>Community Partnership</p> <p>Support and foster partnerships with existing community groups practicing reduction and diversion initiatives (e.g., provide information in City Website).</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Reduces environmental impacts by promoting waste diversion and reducing landfill disposal. Diverting waste from landfill disposal aligns with climate action plan to reduce GHG emissions. Provides greater understanding of environmental issues associated with waste generation to the community. Supports reuse and reducing the need for single-use products. <p>Constraints:</p> <ul style="list-style-type: none"> Increases opportunity for reuse and repair. <p>Constraints:</p> <ul style="list-style-type: none"> N/A 	<p>Opportunities:</p> <ul style="list-style-type: none"> Connects with stakeholders that might have opportunities for financial benefits. Provides ability to offset costs for solid waste services, through the implementation and promotion of waste reuse, reduction and recycling programs. Leverages other resources for promoting waste reduction and diversion. Promotes local job creation. <p>Constraints:</p> <ul style="list-style-type: none"> Resources required to participate in community engagement activities and promotion (i.e., staff coordination, city website inclusion, etc.). 	<p>Opportunities:</p> <ul style="list-style-type: none"> Community-based organizations can encourage residents to participate in waste segregation and engage in policymaking and implementation. Can gauge and measure public satisfaction for solid waste management. Provides ability to discuss system improvements with stakeholders. Provides ability to piggy-back other City initiatives with stakeholder engagement. Creates community solid waste management liaison. Provides ability to identify community priorities and values. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Helps support statewide diversion mandates. Provides ability to increase overall diversion rates. Supports climate action goals and initiatives. Provides ability to understand public willingness to comply with statewide and local mandates. Gauges and measures community interest in and satisfaction with solid waste management. Provides ability to discuss system improvements with stakeholders. Creates community solid waste management liaison. Provides ability to identify business priorities and values. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides opportunity to expand existing programs and services offered by others. <p>Constraints:</p> <ul style="list-style-type: none"> Resources required to provide support to community-based programs and initiatives.

**CITY OF BAINBRIDGE ISLAND
EVALUATION OF WASTE MANAGEMENT SERVICES**

TABLE 1

**SOLID WASTE MANAGEMENT OPTIONS
OPPORTUNITIES AND CONSTRAINTS EVALUATION**

	Environmental	Financial	Social	Regulatory Compliance and Planning Goals	Level of Service
			<ul style="list-style-type: none"> • <p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to obtain public feedback. 	<p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to obtain community involvement and/or stakeholder engagement. 	
<p>Public Outreach and Education</p> <p>Expand education and outreach program for compost, recycling, and other waste diversion initiatives in the City for all residents and commercial generators.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> • Increases environmental awareness and benefits of proper waste management. • Educates residents and businesses on available service offerings. • Reduces environmental impacts by promoting waste diversion and reducing landfill disposal. • Diverting waste from landfill disposal aligns with climate action goals for reducing GHG emissions. <p>Constraints:</p> <ul style="list-style-type: none"> • Development of outreach collateral (i.e., brochures) increases waste. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Connects with stakeholders that might have opportunities for financial benefits. • Provides ability to gauge level of support for various solid waste services. <p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to develop and implement education and outreach material. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Increases and promotes behavior change. • Gauges and measures public interest in and satisfaction with solid waste management. • Provides ability to discuss system improvements with stakeholders. • Provides ability to piggy-back other city initiatives with stakeholder engagement. • Creates community solid waste management liaison. • Provides ability to identify community priorities and values. <p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to obtain public feedback. • Potential unwillingness from stakeholders to provide feedback. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Provides ability to understand public willingness to comply with statewide and local mandates. • Gauges and measures public interest in and satisfaction with solid waste management. • Provides ability to discuss system improvements with stakeholders. • Creates community solid waste management liaison. • Provides ability to identify community priorities and values. <p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to obtain public feedback. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Gauges and measures public satisfaction for level of service. • Provides ability to open dialogue with stakeholders and service providers more effectively. • Provides ability to discuss system improvements with stakeholders. • Creates community solid waste management liaison. <p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to obtain public feedback.
<p>Congregated Waste Receptable Space</p> <p>Develop strategies for congregated waste receptables in public areas.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> • Reduces environmental impacts by increasing waste diversion and reducing landfill disposal. • Diverting waste from landfill disposal aligns with climate action goals for reducing GHG emissions. <p>Constraints:</p> <ul style="list-style-type: none"> • Carbon footprint impact of additional vehicles added to collect and transport recycled material. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Potential grants from federal and state government to increase diversion (collection and processing). <p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to acquire and manage waste receptacles. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Increases accessibility to waste receptacles across local communities. • Supports sustainability. • Supports local community zero waste efforts. <p>Constraints:</p> <ul style="list-style-type: none"> • Property owners and commercial businesses may have oppositions to additional space requirements for receptacles. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Supports state mandates for diverting waste. • Supports city climate action goals. <p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to manage waste receptacle collection. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Builds on existing collection services. • Streamlines collection and improves diversion. <p>Constraints:</p> <ul style="list-style-type: none"> • Need to coordinate with waste hauler to collect waste.
<p>Edible Food Recovery</p> <p>Partner with local organizations and facilities to implement edible food waste recovery programs, food waste drop off systems, or compost hubs for food scraps.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> • Reduces environmental impacts by increasing waste diversion and reducing landfill disposal. • Diverting waste from landfill disposal aligns with climate action goals for reducing GHG emissions. • Complies with state requirements to divert organics from disposal to reduce GHG emissions at landfills. <p>Constraints:</p> <ul style="list-style-type: none"> • Carbon footprint impact of additional vehicles added to collect and transport recovered edible food. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Potential grants from federal and state government to increase diversion of organics (collection and processing). • Reduces cost/resources for solid waste management services. <p>Constraints:</p> <ul style="list-style-type: none"> • City resources (i.e., staff) required to partner and coordinate with local organizations and facilities. • May result in additional cost to residents and businesses. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Promotes behavior change in organics reduction and diversion. • Enhances sustainability. • Benefits community by donating safe, unused food while having a positive impact on low-income families. <p>Constraints:</p> <ul style="list-style-type: none"> • May result in additional cost to residents and businesses. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Supports state mandates for diverting food waste. • Supports city climate action goals by reducing food waste in landfills. • Provides ability to discuss system improvements with stakeholders. • Creates community solid waste management liaison. • Provides ability to identify community priorities and values. • Demonstrates city's commitment to GHG reduction and state mandates. <p>Constraints:</p> <ul style="list-style-type: none"> • City ordinance needs to be promulgated, managed, and enforced. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Builds on existing collection services. <p>Constraints:</p> <ul style="list-style-type: none"> • Need for public outreach and education. • Need for liaison to coordinate and support.

**CITY OF BAINBRIDGE ISLAND
EVALUATION OF WASTE MANAGEMENT SERVICES**

TABLE 1

**SOLID WASTE MANAGEMENT OPTIONS
OPPORTUNITIES AND CONSTRAINTS EVALUATION**

	Environmental	Financial	Social	Regulatory Compliance and Planning Goals	Level of Service
<p>Food Donation Tracking</p> <p>Coordinate with the Washington Department of Agriculture to establish compatible and voluntary reporting protocols to track food donations – per Sections 403 and 404 of HB 1799.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides understanding of food volumes and existing need. <p>Constraints:</p> <ul style="list-style-type: none"> Incremental environmental impacts when conducting waste audits. Ability to perform waste audits due to lack of solid waste infrastructure. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides understanding of waste management requirements and financial obligations to meet statewide mandates. Funding opportunities for food recovery systems (i.e., refrigerated trucks, storage locations, etc.). <p>Constraints:</p> <ul style="list-style-type: none"> Resources required to conduct waste tracking activities. City does not control and/or have an in-depth understanding of the waste management system and key stakeholders. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides understanding of materials discarded by residents and businesses. Provides baseline information for public outreach and education. Pairs food with food insecure communities. <p>Constraints:</p> <ul style="list-style-type: none"> Challenges with collecting donatable food as City does not control the waste management system. Establishing a location where services could be rendered could be a challenge. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides understanding of waste management requirements to meet statewide mandates. Identifies and quantifies divertible and potentially donatable food. Estimates system capacity required for waste management facilities. Estimates environmental benefits (i.e., GHG reduction). <p>Constraints:</p> <ul style="list-style-type: none"> Challenges with engaging businesses in food donation programs. Challenges with collecting donatable food as City does not have system in place to collect. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides ability to understand framework for how donatable/edible food is recovered and distributed. Identifies potential infrastructure needed to support food recovery. Provides ability to monitor program performance. Good Samaritan laws provide release of liability providing potential food donation establishment and/or individual peace-of-mind when making a donation. <p>Constraints:</p> <ul style="list-style-type: none"> Perceived challenges with liability and public health concerns.
<p>HHW and E-Waste Program Enhancement</p> <p>Partner with electronic waste, battery, and hazardous material drop off sites to expand programs to City facilities (e.g., public libraries) and reoccurring collection events.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Reduces environmental impacts by increasing waste diversion and reducing landfill disposal. Diverting waste from landfill disposal aligns with climate action goals for reducing GHG emissions. <p>Constraints:</p> <ul style="list-style-type: none"> Carbon footprint impact of additional vehicles added to collect and transport HHW and e-waste. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Potential grants from federal and state government to increase diversion of HHW and e-waste (collection and processing). Reduces cost/resources for solid waste management services. <p>Constraints:</p> <ul style="list-style-type: none"> City resources (i.e., staff) required to partner and coordinate with local organizations and facilities. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Promotes behavior change in HHW and e-waste landfill diversion. Enhances sustainability. <p>Constraints:</p> <ul style="list-style-type: none"> May result in additional costs to businesses. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Supports city climate action goals. Provides ability to discuss system improvements with stakeholders. Creates community solid waste management liaison. Provides ability to identify community priorities and values. <p>Constraints:</p> <ul style="list-style-type: none"> Lack of existing solid waste management governance. May experience challenges with new/proposed initiatives. Need for public outreach and education. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Builds on existing collection services. <p>Constraints:</p> <ul style="list-style-type: none"> Need for public outreach and education. Need for liaison to coordinate and support.
<p>Narrow Streets Collection</p> <p>Assess narrow streets collection and develop strategies for improvement.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Reduces environmental impacts by increasing waste diversion and reducing landfill disposal. Diverting waste from landfill disposal aligns with climate action goals for reducing GHG emissions. Diverting waste from landfill disposal aligns with climate action plan. Helps comply with state requirements to divert organics <p>Constraints:</p> <ul style="list-style-type: none"> Carbon footprint impact of additional vehicles added to collect from narrow streets. Increase localized traffic. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Potential grants from federal and state government to increase diversion (collection services). <p>Constraints:</p> <ul style="list-style-type: none"> Additional resources and labor costs to implement narrow streets collection. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Increases accessibility to collection services in local communities <p>Constraints:</p> <ul style="list-style-type: none"> Will likely result in additional fee to residents for collection. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides ability to increase overall diversion goals. Helps meet climate action goals and initiatives. Helps comply with state requirements to divert organics. <p>Constraints:</p> <ul style="list-style-type: none"> Challenge with requiring mandatory services. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Builds on existing collection services. Streamlines collection and improve diversion. <p>Constraints:</p> <ul style="list-style-type: none"> The city currently does not control the solid waste management system. Needs to be provided by contracted service provider. City needs to coordinate with hauler to improve collection service.

**CITY OF BAINBRIDGE ISLAND
EVALUATION OF WASTE MANAGEMENT SERVICES**

TABLE 1

**SOLID WASTE MANAGEMENT OPTIONS
OPPORTUNITIES AND CONSTRAINTS EVALUATION**

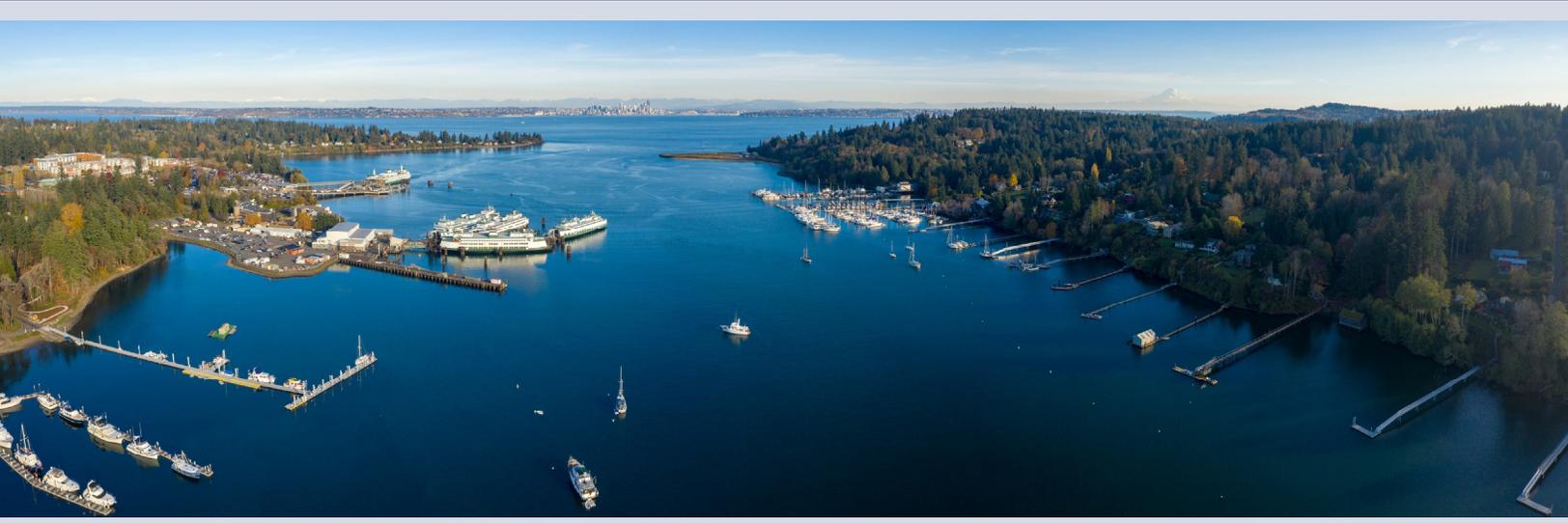
	Environmental	Financial	Social	Regulatory Compliance and Planning Goals	Level of Service
<p>Reuse Business Support</p> <p>Encourage and/or support development of reuse depots, thrift stores, free/donation, and repair/reuse systems; Promote and expand existing C&D Re-use programs (ex. building material re-use centers).</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Reduces environmental impacts by increasing waste diversion and reducing landfill disposal. Diverting waste from landfill disposal aligns with climate action goals for reducing GHG emissions. <p>Constraints:</p> <ul style="list-style-type: none"> Carbon footprint impact of additional vehicles added to collect and transport reusable material. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Potential grants from federal and state government to increase diversion of material. <p>Constraints:</p> <ul style="list-style-type: none"> City resources (i.e., staff) required to partner and coordinate with local organizations and facilities. Leverages resources of existing programs/services. May result in additional cost to businesses. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Promotes behavior change in material reuse. Enhances sustainability. <p>Constraints:</p> <ul style="list-style-type: none"> Requires education and outreach to promote community engagement. May result in additional costs to businesses. Challenges with collecting reusable material as City does not control the waste management system. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides ability to increase overall diversion rates. Supports climate action goals and initiatives. Provides ability to understand public willingness to comply with statewide and local mandates. Gauges and measures public interest in and satisfaction with solid waste management. Provides ability to discuss system improvements with stakeholders. Creates community solid waste management liaison. Provides ability to identify business priorities and values. <p>Constraints:</p> <ul style="list-style-type: none"> Challenges with engaging businesses in reuse programs. Challenges with collecting reusable material as City does not control the waste management system. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Enhances existing collection services. Provides ability to discuss system improvements with stakeholders. Creates community solid waste management liaison. <p>Constraints:</p> <ul style="list-style-type: none"> Need for public education and outreach.

**CITY OF BAINBRIDGE ISLAND
EVALUATION OF WASTE MANAGEMENT SERVICES**

TABLE 1

**SOLID WASTE MANAGEMENT OPTIONS
OPPORTUNITIES AND CONSTRAINTS EVALUATION**

	Environmental	Financial	Social	Regulatory Compliance and Planning Goals	Level of Service
Collection Management Options					
Status Quo WUTC Rate-Setting and Regulation	Opportunities: Can regulate through ordinance requirements to help meet City Climate goals. Constraints: Need to coordinate with WUTC regulated hauler to improve track and monitor progress toward City's climate goals.	Opportunities: <ul style="list-style-type: none"> No oversight and administrative cost to City Potential to meet some financial goals through utility tax allowed by WUTC. Constraints: <ul style="list-style-type: none"> No control in rate setting, funding for solid waste programs or direct billing/ outreach relationship with City residents. 	Opportunities: <ul style="list-style-type: none"> Can coordinate with hauler to promote waste diversion. Constraints: <ul style="list-style-type: none"> No direct relationship with solid waste collection customers. 	Opportunities: <ul style="list-style-type: none"> The WUTC is in alignment with regulatory oversight within State standard practices and requirements. Constraints: <ul style="list-style-type: none"> Need to coordinate with WUTC regulated hauler to establish and monitor progress toward City climate action and solid waste goals. 	Opportunities: <ul style="list-style-type: none"> Mandatory collection or higher levels of service can be enacted through City ordinance. Constraints: <ul style="list-style-type: none"> Mandatory collection or higher levels of service requires regulatory action (i.e. City ordinance). Monitoring where improvements can be made to the collection service is more challenging.
City-Owned and -Operated Collection Services and Billings	Opportunities: <ul style="list-style-type: none"> Expanded City control over GHG emissions related to vehicles, hauling, processing, and landfill disposal. Constraints: <ul style="list-style-type: none"> The City may not have comparable economies of scale for an operation as efficient as a contractor would, potentially increasing the City's overall carbon footprint related to materials management. 	Opportunities: <ul style="list-style-type: none"> Direct control over rate-setting for collection and disposal services. Opportunity to establish solid waste funding through rate-setting to budget operations, and to build and maintain fixed assets. Constraints: <ul style="list-style-type: none"> City resources (i.e., equipment, vehicles, staff) and investment are required to provide collection, billing and customer services. City would incur start-up and ongoing administrative and operational costs. Rates likely higher than Status Quo option. 	Opportunities: <ul style="list-style-type: none"> Raise awareness of City role in solid waste management. Direct relationship between City and customers City has control over hiring staff and meeting the City's social objectives. Constraints: <ul style="list-style-type: none"> Higher cost/rate impact to customers. Need for public outreach and education on rates. 	Opportunities: <ul style="list-style-type: none"> Direct regulatory oversight over compliance and progress toward meeting City climate action and solid waste management goals than under Status Quo. Constraints: <ul style="list-style-type: none"> Legal and procedural requirements and implications to be evaluated and considered for City taking over control of collection. 	Opportunities: <ul style="list-style-type: none"> Ability to design rate structure around desired level of service. Direct control over mandatory collection or other changes in service. Direct control over challenges with illegal dumping Constraints: <ul style="list-style-type: none"> Significant resources and investment to increase levels of service.
Contract Collection Service with City Rate Setting Control City would contract out waste collection services to a private firm while setting rates and collecting fees from customers.	Opportunities: <ul style="list-style-type: none"> Expanded City control over GHG emissions related to vehicles, hauling, processing, and landfill disposal through hauler contract(s). Constraints: <ul style="list-style-type: none"> Ability to monitor progress toward City climate goals may be affected if there are multiple hauler contracts. 	Opportunities: <ul style="list-style-type: none"> Direct control over rate-setting for collection and disposal services and solid waste management funding. City would be responsible for annual financial reviews. Constraints: <ul style="list-style-type: none"> City would incur start-up (i.e. contracting, rate setting) and ongoing administrative costs. Rates likely higher than Status Quo option. 	Opportunities: <ul style="list-style-type: none"> Raises awareness of City role in solid waste management. Provides direct communications with customers through billings. Constraints: <ul style="list-style-type: none"> Likely higher cost/rate impact to customers. Need for public outreach and education on rates. Less control over hiring staff and meeting City's social objectives than City-Owned and -Operated option. 	Opportunities: <ul style="list-style-type: none"> Direct regulatory oversight over compliance and progress toward meeting City climate action and solid waste management goals than under Status Quo. Constraints: <ul style="list-style-type: none"> Legal and procedural requirements and implications to be evaluated and considered for City taking over control of collection. 	Opportunities: <ul style="list-style-type: none"> Ability to design rate structure around desired level of service. Direct control over mandatory collection or changes in service. Direct control over challenges with illegal dumping Constraints: <ul style="list-style-type: none"> City would have less operational control relative to City-Owned/Operated over adapting collection to higher levels of service.
Contract Collection Service with WUTC Control Over Rates and Billings City would contract out waste collection services to a private firm and exercise option to have WUTC control rates and collect fees from customers.	Opportunities: <ul style="list-style-type: none"> Expanded City control over GHG emissions related to vehicles, hauling, processing, and landfill disposal through hauler contract(s). Constraints: <ul style="list-style-type: none"> Ability to monitor progress toward City climate goals may be affected if there are multiple hauler contracts. 	Opportunities: <ul style="list-style-type: none"> Minimal oversight and administrative cost to City compared to Contract Collection Service with City Rate Setting Control option. Constraints: <ul style="list-style-type: none"> City resources needed for contracting and administration. No control in rate setting for collections services and solid waste management funding or direct billing/ outreach relationship with City residents. 	Opportunities: <ul style="list-style-type: none"> Raises awareness of City role in solid waste management. Minimal changes and updates needed to educate residents on changes in billing. Constraints: <ul style="list-style-type: none"> Potentially no direct relationship with City residents. Less control over hiring staff and meeting City's social objectives than City-Owned and -Operated option. 	Opportunities: <ul style="list-style-type: none"> Direct regulatory oversight over compliance and progress toward meeting City climate action and solid waste management goals The WUTC is in alignment with regulatory oversight within State standard practices. Constraints: <ul style="list-style-type: none"> Legal and procedural requirements and implications to be evaluated and considered for City taking over control of collection. City goals may be more aggressive than state regulations. 	Opportunities: <ul style="list-style-type: none"> Direct control over mandatory collection or changes in service. Direct control over challenges with illegal dumping Constraints: <ul style="list-style-type: none"> City would have less operational control relative to City-Owned/Operated over adapting collection to higher levels of service.



City of Bainbridge Island
Public Works Department
Exploratory Evaluation of Waste Management System



**CITY OF BAINBRIDGE ISLAND
EVALUATION OF WASTE MANAGEMENT SERVICES**

TABLE 1

**SOLID WASTE MANAGEMENT OPTIONS
OPPORTUNITIES AND CONSTRAINTS EVALUATION**

	Environmental	Financial	Social	Regulatory Compliance and Planning Goals	Level of Service
Regulatory Options					
<p>Mandatory 3-Stream Waste Collection Services (Residential and Commercial)</p> <p>Require mandatory trash, recycling, and organic waste services for all residents, commercial generators, and City facilities. Ensure City planning reviews include accommodation for adequate collection service.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Reduces environmental impacts by increasing waste diversion and reducing landfill disposal. Diverting waste from landfill disposal aligns with climate action goals for reducing GHG emissions. Complies with state mandate requirements to divert organic waste from disposal. <p>Constraints:</p> <ul style="list-style-type: none"> Additional vehicles/vehicle-miles may be required to collect waste streams (increases carbon footprint). Increases localized traffic. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Potential grants from federal and state government to increase diversion of organics (collection and processing). <p>Constraints:</p> <ul style="list-style-type: none"> Additional resources and labor costs to implement a three-stream collection system including staff to develop collection requirements, measure and track waste diversion. Increases fee to the rate payer. Potential need for new and/or expanded facilities to process diverted materials. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Supports behavior change in waste reduction and diversion. Enhances sustainability. Enhances local community zero waste efforts. Meets best practices for waste management. Helps meet state requirements for diverting organic waste. Helps meet city climate action goals. <p>Constraints:</p> <ul style="list-style-type: none"> Requires outreach and education as well as infrastructure to promote behavior change. Property owners and commercial businesses may object to additional space to store receptacles. Increases localized traffic. Potential public opposition to additional cost to residents and businesses. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Helps meet state requirements for diverting organic waste. Helps meet city climate action goals. <p>Constraints:</p> <ul style="list-style-type: none"> Regulatory authority needed, such as a City ordinance or directly contracting collections. The city currently does not control the solid waste management system so has to take control over collection contracting. City ordinance needs to be promulgated which should include planning goals for diversion. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Builds on existing collection services. Requires organics/food waste to be collected and diverted. Streamlines collection and improves diversion (i.e. collection frequency of trash). City should lead by example by including service at public facilities/venues. <p>Constraints:</p> <ul style="list-style-type: none"> Ability to service narrow public roads is more challenging. Need for public outreach and education. Need for adequate facilities to process diverted materials.
<p>C&D Ordinance</p> <p>Develop C&D Waste Diversion Requirements and Policies for new and existing buildings (C&D Ordinance); Develop policies that support C&D recycling (ex. minimum diversion for C&D projects, dismantling of buildings, and preparation of waste management plans).</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Reduces environmental impacts by increasing waste diversion and reducing landfill disposal. Closes the circular economy loop by creating a usable product out of C&D. Increases landfill site life. Promotes reuse of building materials. <p>Constraints:</p> <ul style="list-style-type: none"> Additional vehicles may be required to collect waste streams (increases carbon footprint). May promote illegal dumping. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Potential grants from federal and state government to increase diversion of C&D (collection and processing). Collection of recycling fees for C&D activities. Creates new local jobs. <p>Constraints:</p> <ul style="list-style-type: none"> City resources (i.e., staff) required to develop, maintain, and implement program. Potential need for new and/or expanded facilities to process diverted materials. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Supports behavior change in waste reduction and diversion. Enhances sustainability. Enhances local community zero waste efforts. Meets best practices for waste management. Helps meet city climate action goals. <p>Constraints:</p> <ul style="list-style-type: none"> Requires outreach and education as well as infrastructure to promote behavior change. Potential public opposition for additional fees and processes to manage C&D waste. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides ability to increase overall diversion goals. Meets climate action goals and initiatives. <p>Constraints:</p> <ul style="list-style-type: none"> City ordinance needs to be promulgated, managed, and enforced. 	<p>Opportunities:</p> <ul style="list-style-type: none"> C&D industry would need to adhere to current BMPs for C&D recovery. Targets one of the largest waste streams. Provides residents and businesses ability to recycle C&D materials. <p>Constraints:</p> <ul style="list-style-type: none"> Need for public outreach and education. Need for adequate facilities to process diverted materials. Requires resources (i.e., staffing) to manage C&D program.
<p>Contamination Enforcement</p> <p>Implement a penalty for improper use of recycling and organics waste receptacles. If contaminated, materials may not be able to be recycled and end up being disposed.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Encourages proper waste diversion and reduction of landfill disposal. Diverting more waste from landfill disposal aligns with climate action goals for reducing greenhouse gas emissions. Provides ability to recycle additional materials due to less contamination. <p>Constraints:</p> <ul style="list-style-type: none"> Additional resources (i.e., vehicles and staff) may be required to conduct bin inspections (increases carbon footprint). Increases localized traffic. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Potential grants from federal and state government to increase diversion of recyclables and organics (collection and processing). Collection of contamination fees for enforcement activities. Creates new local jobs. <p>Constraints:</p> <ul style="list-style-type: none"> City resources (e.g., staff and cost of outreach material) required to enforce penalization for contamination. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Promotes proper behavior change in waste reduction and diversion. Enhances sustainability. <p>Constraints:</p> <ul style="list-style-type: none"> Requires outreach and education to promote behavior change. Increases localized traffic. Likely public opposition to bin inspections/privacy concerns and penalties. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Helps meet state requirements for diverting organic waste. Ability to increase overall diversion goals. Helps meet climate action goals and initiatives by reducing landfill disposal. <p>Constraints:</p> <ul style="list-style-type: none"> The City currently does not control the solid waste collection system so City ordinance or regulation needs to be promulgated. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Builds on existing collection services. Improves diversion. Supports community priorities. <p>Constraints:</p> <ul style="list-style-type: none"> Need for public outreach and education. City resources (i.e., staff) required to develop and enforce programs.

**CITY OF BAINBRIDGE ISLAND
EVALUATION OF WASTE MANAGEMENT SERVICES**

TABLE 1

**SOLID WASTE MANAGEMENT OPTIONS
OPPORTUNITIES AND CONSTRAINTS EVALUATION**

	Environmental	Financial	Social	Regulatory Compliance and Planning Goals	Level of Service
Programmatic Options					
<p>Solid Waste Management Planning</p> <p>Participate in the County’s solid waste management planning process and adhere to County SHWMP strategies. City staff representation on Solid Waste Advisory Committee (SWAC). The City can further planning efforts with a focused strategic plan that identifies, evaluates and develops short- and long- term strategies and options, with a detailed implementation plan, to best manage waste in the City in a manner consistent with regional County planning strategies and in alignment with City climate action goals. Develop community-based metrics and system for measuring performance.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides framework, goals, and targets for solid waste management that improves the environment. Identifies resource requirements. Identifies implementation schedule. <p>Constraints:</p> <ul style="list-style-type: none"> N/A 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides ability to offset disposal costs for solid waste services, through the implementation and promotion of waste reuse, reduction and recycling programs. Identifies costs and budgeting needs for planned solid waste services and programs. <p>Constraints:</p> <ul style="list-style-type: none"> Resources required to develop, implement, and maintain the plan. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Promotes behavior change in waste reduction and diversion. Supports sustainability. Supports local community zero waste efforts. Meets best practices for waste management. Provides opportunity for input from stakeholders (residents and businesses) <p>Constraints:</p> <ul style="list-style-type: none"> Resources required to develop the plan. Community involvement and/or stakeholder engagement needed to develop plan. Need for public outreach and education. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Establishes goals and targets for solid waste management to align with state and city mandates. Establishes baseline conditions for measuring progress in achieving solid waste management goals. Supports development of regulatory requirements. <p>Constraints:</p> <ul style="list-style-type: none"> May experience challenges with new/proposed initiatives. Need for public outreach and education. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Increases level of service for the community. Provides opportunity for City to influence level of service. Addresses statewide mandates and initiatives for City. <p>Constraints:</p> <ul style="list-style-type: none"> Need for public outreach and education. Need to develop cost structure and to recover costs.
<p>Waste Audits</p> <p>Perform regular waste composition audits (every 2-3 years) to gauge progress of meeting HB 1799 and Ordinance 2021-34.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides understanding of materials discarded by residents and businesses that can be targeted for recycling. <p>Constraints:</p> <ul style="list-style-type: none"> Incremental environmental impacts when conducting waste audits. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides understanding of waste management requirements and associated financial obligations to meet statewide mandates. <p>Constraints:</p> <ul style="list-style-type: none"> Financial resources required to conduct a waste characterization study. City does not control the waste management system. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides understanding of materials discarded by residents and businesses. Provides baseline information for public outreach and education. Can pair sorting event with community for educational purposes. <p>Constraints:</p> <ul style="list-style-type: none"> Sorting of waste may create public opposition from residents and businesses Challenges with collecting waste samples as City does not control the waste management system. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Gains understanding of waste management requirements to meet statewide mandates. Identifies and quantifies divertible and potentially divertible materials. Estimates required capacity for waste management facilities. Estimate environmental benefits (i.e., GHG reduction). <p>Constraints:</p> <ul style="list-style-type: none"> Coordination needed with waste hauler to collect waste samples as City does not control waste collection or disposal. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides ability to estimate level of service (e.g., routing, bin size, equipment needs, etc.). Identifies potential infrastructure needed to process material. Provides ability to monitor program performance. <p>Constraints:</p> <ul style="list-style-type: none"> Results are a snapshot in time.
<p>Community Partnership</p> <p>Support and foster partnerships with existing community groups practicing reduction and diversion initiatives (e.g., provide information in City Website).</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Reduces environmental impacts by promoting waste diversion and reducing landfill disposal. Diverting waste from landfill disposal aligns with climate action plan to reduce GHG emissions. Provides greater understanding of environmental issues associated with waste generation to the community. Supports reuse and reducing the need for single-use products. <p>Constraints:</p> <ul style="list-style-type: none"> Increases opportunity for reuse and repair. <p>Constraints:</p> <ul style="list-style-type: none"> N/A 	<p>Opportunities:</p> <ul style="list-style-type: none"> Connects with stakeholders that might have opportunities for financial benefits. Provides ability to offset costs for solid waste services, through the implementation and promotion of waste reuse, reduction and recycling programs. Leverages other resources for promoting waste reduction and diversion. Promotes local job creation. <p>Constraints:</p> <ul style="list-style-type: none"> Resources required to participate in community engagement activities and promotion (i.e., staff coordination, city website inclusion, etc.). 	<p>Opportunities:</p> <ul style="list-style-type: none"> Community-based organizations can encourage residents to participate in waste segregation and engage in policymaking and implementation. Can gauge and measure public satisfaction for solid waste management. Provides ability to discuss system improvements with stakeholders. Provides ability to piggy-back other City initiatives with stakeholder engagement. Creates community solid waste management liaison. Provides ability to identify community priorities and values. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Helps support statewide diversion mandates. Provides ability to increase overall diversion rates. Supports climate action goals and initiatives. Provides ability to understand public willingness to comply with statewide and local mandates. Gauges and measures community interest in and satisfaction with solid waste management. Provides ability to discuss system improvements with stakeholders. Creates community solid waste management liaison. Provides ability to identify business priorities and values. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides opportunity to expand existing programs and services offered by others. <p>Constraints:</p> <ul style="list-style-type: none"> Resources required to provide support to community-based programs and initiatives.

**CITY OF BAINBRIDGE ISLAND
EVALUATION OF WASTE MANAGEMENT SERVICES**

TABLE 1

**SOLID WASTE MANAGEMENT OPTIONS
OPPORTUNITIES AND CONSTRAINTS EVALUATION**

	Environmental	Financial	Social	Regulatory Compliance and Planning Goals	Level of Service
			<ul style="list-style-type: none"> • <p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to obtain public feedback. 	<p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to obtain community involvement and/or stakeholder engagement. 	
<p>Public Outreach and Education</p> <p>Expand education and outreach program for compost, recycling, and other waste diversion initiatives in the City for all residents and commercial generators.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> • Increases environmental awareness and benefits of proper waste management. • Educates residents and businesses on available service offerings. • Reduces environmental impacts by promoting waste diversion and reducing landfill disposal. • Diverting waste from landfill disposal aligns with climate action goals for reducing GHG emissions. <p>Constraints:</p> <ul style="list-style-type: none"> • Development of outreach collateral (i.e., brochures) increases waste. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Connects with stakeholders that might have opportunities for financial benefits. • Provides ability to gauge level of support for various solid waste services. <p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to develop and implement education and outreach material. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Increases and promotes behavior change. • Gauges and measures public interest in and satisfaction with solid waste management. • Provides ability to discuss system improvements with stakeholders. • Provides ability to piggy-back other city initiatives with stakeholder engagement. • Creates community solid waste management liaison. • Provides ability to identify community priorities and values. <p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to obtain public feedback. • Potential unwillingness from stakeholders to provide feedback. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Provides ability to understand public willingness to comply with statewide and local mandates. • Gauges and measures public interest in and satisfaction with solid waste management. • Provides ability to discuss system improvements with stakeholders. • Creates community solid waste management liaison. • Provides ability to identify community priorities and values. <p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to obtain public feedback. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Gauges and measures public satisfaction for level of service. • Provides ability to open dialogue with stakeholders and service providers more effectively. • Provides ability to discuss system improvements with stakeholders. • Creates community solid waste management liaison. <p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to obtain public feedback.
<p>Congregated Waste Receptable Space</p> <p>Develop strategies for congregated waste receptables in public areas.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> • Reduces environmental impacts by increasing waste diversion and reducing landfill disposal. • Diverting waste from landfill disposal aligns with climate action goals for reducing GHG emissions. <p>Constraints:</p> <ul style="list-style-type: none"> • Carbon footprint impact of additional vehicles added to collect and transport recycled material. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Potential grants from federal and state government to increase diversion (collection and processing). <p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to acquire and manage waste receptacles. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Increases accessibility to waste receptacles across local communities. • Supports sustainability. • Supports local community zero waste efforts. <p>Constraints:</p> <ul style="list-style-type: none"> • Property owners and commercial businesses may have oppositions to additional space requirements for receptacles. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Supports state mandates for diverting waste. • Supports city climate action goals. <p>Constraints:</p> <ul style="list-style-type: none"> • Resources required to manage waste receptacle collection. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Builds on existing collection services. • Streamlines collection and improves diversion. <p>Constraints:</p> <ul style="list-style-type: none"> • Need to coordinate with waste hauler to collect waste.
<p>Edible Food Recovery</p> <p>Partner with local organizations and facilities to implement edible food waste recovery programs, food waste drop off systems, or compost hubs for food scraps.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> • Reduces environmental impacts by increasing waste diversion and reducing landfill disposal. • Diverting waste from landfill disposal aligns with climate action goals for reducing GHG emissions. • Complies with state requirements to divert organics from disposal to reduce GHG emissions at landfills. <p>Constraints:</p> <ul style="list-style-type: none"> • Carbon footprint impact of additional vehicles added to collect and transport recovered edible food. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Potential grants from federal and state government to increase diversion of organics (collection and processing). • Reduces cost/resources for solid waste management services. <p>Constraints:</p> <ul style="list-style-type: none"> • City resources (i.e., staff) required to partner and coordinate with local organizations and facilities. • May result in additional cost to residents and businesses. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Promotes behavior change in organics reduction and diversion. • Enhances sustainability. • Benefits community by donating safe, unused food while having a positive impact on low-income families. <p>Constraints:</p> <ul style="list-style-type: none"> • May result in additional cost to residents and businesses. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Supports state mandates for diverting food waste. • Supports city climate action goals by reducing food waste in landfills. • Provides ability to discuss system improvements with stakeholders. • Creates community solid waste management liaison. • Provides ability to identify community priorities and values. • Demonstrates city's commitment to GHG reduction and state mandates. <p>Constraints:</p> <ul style="list-style-type: none"> • City ordinance needs to be promulgated, managed, and enforced. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Builds on existing collection services. <p>Constraints:</p> <ul style="list-style-type: none"> • Need for public outreach and education. • Need for liaison to coordinate and support.

**CITY OF BAINBRIDGE ISLAND
EVALUATION OF WASTE MANAGEMENT SERVICES**

TABLE 1

**SOLID WASTE MANAGEMENT OPTIONS
OPPORTUNITIES AND CONSTRAINTS EVALUATION**

	Environmental	Financial	Social	Regulatory Compliance and Planning Goals	Level of Service
<p>Food Donation Tracking</p> <p>Coordinate with the Washington Department of Agriculture to establish compatible and voluntary reporting protocols to track food donations – per Sections 403 and 404 of HB 1799.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides understanding of food volumes and existing need. <p>Constraints:</p> <ul style="list-style-type: none"> Incremental environmental impacts when conducting waste audits. Ability to perform waste audits due to lack of solid waste infrastructure. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides understanding of waste management requirements and financial obligations to meet statewide mandates. Funding opportunities for food recovery systems (i.e., refrigerated trucks, storage locations, etc.). <p>Constraints:</p> <ul style="list-style-type: none"> Resources required to conduct waste tracking activities. City does not control and/or have an in-depth understanding of the waste management system and key stakeholders. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides understanding of materials discarded by residents and businesses. Provides baseline information for public outreach and education. Pairs food with food insecure communities. <p>Constraints:</p> <ul style="list-style-type: none"> Challenges with collecting donatable food as City does not control the waste management system. Establishing a location where services could be rendered could be a challenge. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides understanding of waste management requirements to meet statewide mandates. Identifies and quantifies divertible and potentially donatable food. Estimates system capacity required for waste management facilities. Estimates environmental benefits (i.e., GHG reduction). <p>Constraints:</p> <ul style="list-style-type: none"> Challenges with engaging businesses in food donation programs. Challenges with collecting donatable food as City does not have system in place to collect. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides ability to understand framework for how donatable/edible food is recovered and distributed. Identifies potential infrastructure needed to support food recovery. Provides ability to monitor program performance. Good Samaritan laws provide release of liability providing potential food donation establishment and/or individual peace-of-mind when making a donation. <p>Constraints:</p> <ul style="list-style-type: none"> Perceived challenges with liability and public health concerns.
<p>HHW and E-Waste Program Enhancement</p> <p>Partner with electronic waste, battery, and hazardous material drop off sites to expand programs to City facilities (e.g., public libraries) and reoccurring collection events.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Reduces environmental impacts by increasing waste diversion and reducing landfill disposal. Diverting waste from landfill disposal aligns with climate action goals for reducing GHG emissions. <p>Constraints:</p> <ul style="list-style-type: none"> Carbon footprint impact of additional vehicles added to collect and transport HHW and e-waste. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Potential grants from federal and state government to increase diversion of HHW and e-waste (collection and processing). Reduces cost/resources for solid waste management services. <p>Constraints:</p> <ul style="list-style-type: none"> City resources (i.e., staff) required to partner and coordinate with local organizations and facilities. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Promotes behavior change in HHW and e-waste landfill diversion. Enhances sustainability. <p>Constraints:</p> <ul style="list-style-type: none"> May result in additional costs to businesses. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Supports city climate action goals. Provides ability to discuss system improvements with stakeholders. Creates community solid waste management liaison. Provides ability to identify community priorities and values. <p>Constraints:</p> <ul style="list-style-type: none"> Lack of existing solid waste management governance. May experience challenges with new/proposed initiatives. Need for public outreach and education. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Builds on existing collection services. <p>Constraints:</p> <ul style="list-style-type: none"> Need for public outreach and education. Need for liaison to coordinate and support.
<p>Narrow Streets Collection</p> <p>Assess narrow streets collection and develop strategies for improvement.</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Reduces environmental impacts by increasing waste diversion and reducing landfill disposal. Diverting waste from landfill disposal aligns with climate action goals for reducing GHG emissions. Diverting waste from landfill disposal aligns with climate action plan. Helps comply with state requirements to divert organics <p>Constraints:</p> <ul style="list-style-type: none"> Carbon footprint impact of additional vehicles added to collect from narrow streets. Increase localized traffic. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Potential grants from federal and state government to increase diversion (collection services). <p>Constraints:</p> <ul style="list-style-type: none"> Additional resources and labor costs to implement narrow streets collection. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Increases accessibility to collection services in local communities <p>Constraints:</p> <ul style="list-style-type: none"> Will likely result in additional fee to residents for collection. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides ability to increase overall diversion goals. Helps meet climate action goals and initiatives. Helps comply with state requirements to divert organics. <p>Constraints:</p> <ul style="list-style-type: none"> Challenge with requiring mandatory services. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Builds on existing collection services. Streamlines collection and improve diversion. <p>Constraints:</p> <ul style="list-style-type: none"> The city currently does not control the solid waste management system. Needs to be provided by contracted service provider. City needs to coordinate with hauler to improve collection service.

**CITY OF BAINBRIDGE ISLAND
EVALUATION OF WASTE MANAGEMENT SERVICES**

TABLE 1

**SOLID WASTE MANAGEMENT OPTIONS
OPPORTUNITIES AND CONSTRAINTS EVALUATION**

	Environmental	Financial	Social	Regulatory Compliance and Planning Goals	Level of Service
<p>Reuse Business Support</p> <p>Encourage and/or support development of reuse depots, thrift stores, free/donation, and repair/reuse systems; Promote and expand existing C&D Re-use programs (ex. building material re-use centers).</p>	<p>Opportunities:</p> <ul style="list-style-type: none"> Reduces environmental impacts by increasing waste diversion and reducing landfill disposal. Diverting waste from landfill disposal aligns with climate action goals for reducing GHG emissions. <p>Constraints:</p> <ul style="list-style-type: none"> Carbon footprint impact of additional vehicles added to collect and transport reusable material. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Potential grants from federal and state government to increase diversion of material. <p>Constraints:</p> <ul style="list-style-type: none"> City resources (i.e., staff) required to partner and coordinate with local organizations and facilities. Leverages resources of existing programs/services. May result in additional cost to businesses. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Promotes behavior change in material reuse. Enhances sustainability. <p>Constraints:</p> <ul style="list-style-type: none"> Requires education and outreach to promote community engagement. May result in additional costs to businesses. Challenges with collecting reusable material as City does not control the waste management system. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Provides ability to increase overall diversion rates. Supports climate action goals and initiatives. Provides ability to understand public willingness to comply with statewide and local mandates. Gauges and measures public interest in and satisfaction with solid waste management. Provides ability to discuss system improvements with stakeholders. Creates community solid waste management liaison. Provides ability to identify business priorities and values. <p>Constraints:</p> <ul style="list-style-type: none"> Challenges with engaging businesses in reuse programs. Challenges with collecting reusable material as City does not control the waste management system. 	<p>Opportunities:</p> <ul style="list-style-type: none"> Enhances existing collection services. Provides ability to discuss system improvements with stakeholders. Creates community solid waste management liaison. <p>Constraints:</p> <ul style="list-style-type: none"> Need for public education and outreach.

**CITY OF BAINBRIDGE ISLAND
EVALUATION OF WASTE MANAGEMENT SERVICES**

TABLE 1

**SOLID WASTE MANAGEMENT OPTIONS
OPPORTUNITIES AND CONSTRAINTS EVALUATION**

	Environmental	Financial	Social	Regulatory Compliance and Planning Goals	Level of Service
Collection Management Options					
Status Quo WUTC Rate-Setting and Regulation	Opportunities: Can regulate through ordinance requirements to help meet City Climate goals. Constraints: Need to coordinate with WUTC regulated hauler to improve track and monitor progress toward City's climate goals.	Opportunities: <ul style="list-style-type: none"> No oversight and administrative cost to City Potential to meet some financial goals through utility tax allowed by WUTC. Constraints: <ul style="list-style-type: none"> No control in rate setting, funding for solid waste programs or direct billing/ outreach relationship with City residents. 	Opportunities: <ul style="list-style-type: none"> Can coordinate with hauler to promote waste diversion. Constraints: <ul style="list-style-type: none"> No direct relationship with solid waste collection customers. 	Opportunities: <ul style="list-style-type: none"> The WUTC is in alignment with regulatory oversight within State standard practices and requirements. Constraints: <ul style="list-style-type: none"> Need to coordinate with WUTC regulated hauler to establish and monitor progress toward City climate action and solid waste goals. 	Opportunities: <ul style="list-style-type: none"> Mandatory collection or higher levels of service can be enacted through City ordinance. Constraints: <ul style="list-style-type: none"> Mandatory collection or higher levels of service requires regulatory action (i.e. City ordinance). Monitoring where improvements can be made to the collection service is more challenging.
City-Owned and -Operated Collection Services and Billings	Opportunities: <ul style="list-style-type: none"> Expanded City control over GHG emissions related to vehicles, hauling, processing, and landfill disposal. Constraints: <ul style="list-style-type: none"> The City may not have comparable economies of scale for an operation as efficient as a contractor would, potentially increasing the City's overall carbon footprint related to materials management. 	Opportunities: <ul style="list-style-type: none"> Direct control over rate-setting for collection and disposal services. Opportunity to establish solid waste funding through rate-setting to budget operations, and to build and maintain fixed assets. Constraints: <ul style="list-style-type: none"> City resources (i.e., equipment, vehicles, staff) and investment are required to provide collection, billing and customer services. City would incur start-up and ongoing administrative and operational costs. Rates likely higher than Status Quo option. 	Opportunities: <ul style="list-style-type: none"> Raise awareness of City role in solid waste management. Direct relationship between City and customers City has control over hiring staff and meeting the City's social objectives. Constraints: <ul style="list-style-type: none"> Higher cost/rate impact to customers. Need for public outreach and education on rates. 	Opportunities: <ul style="list-style-type: none"> Direct regulatory oversight over compliance and progress toward meeting City climate action and solid waste management goals than under Status Quo. Constraints: <ul style="list-style-type: none"> Legal and procedural requirements and implications to be evaluated and considered for City taking over control of collection. 	Opportunities: <ul style="list-style-type: none"> Ability to design rate structure around desired level of service. Direct control over mandatory collection or other changes in service. Direct control over challenges with illegal dumping Constraints: <ul style="list-style-type: none"> Significant resources and investment to increase levels of service.
Contract Collection Service with City Rate Setting Control City would contract out waste collection services to a private firm while setting rates and collecting fees from customers.	Opportunities: <ul style="list-style-type: none"> Expanded City control over GHG emissions related to vehicles, hauling, processing, and landfill disposal through hauler contract(s). Constraints: <ul style="list-style-type: none"> Ability to monitor progress toward City climate goals may be affected if there are multiple hauler contracts. 	Opportunities: <ul style="list-style-type: none"> Direct control over rate-setting for collection and disposal services and solid waste management funding. City would be responsible for annual financial reviews. Constraints: <ul style="list-style-type: none"> City would incur start-up (i.e. contracting, rate setting) and ongoing administrative costs. Rates likely higher than Status Quo option. 	Opportunities: <ul style="list-style-type: none"> Raises awareness of City role in solid waste management. Provides direct communications with customers through billings. Constraints: <ul style="list-style-type: none"> Likely higher cost/rate impact to customers. Need for public outreach and education on rates. Less control over hiring staff and meeting City's social objectives than City-Owned and -Operated option. 	Opportunities: <ul style="list-style-type: none"> Direct regulatory oversight over compliance and progress toward meeting City climate action and solid waste management goals than under Status Quo. Constraints: <ul style="list-style-type: none"> Legal and procedural requirements and implications to be evaluated and considered for City taking over control of collection. 	Opportunities: <ul style="list-style-type: none"> Ability to design rate structure around desired level of service. Direct control over mandatory collection or changes in service. Direct control over challenges with illegal dumping Constraints: <ul style="list-style-type: none"> City would have less operational control relative to City-Owned/Operated over adapting collection to higher levels of service.
Contract Collection Service with WUTC Control Over Rates and Billings City would contract out waste collection services to a private firm and exercise option to have WUTC control rates and collect fees from customers.	Opportunities: <ul style="list-style-type: none"> Expanded City control over GHG emissions related to vehicles, hauling, processing, and landfill disposal through hauler contract(s). Constraints: <ul style="list-style-type: none"> Ability to monitor progress toward City climate goals may be affected if there are multiple hauler contracts. 	Opportunities: <ul style="list-style-type: none"> Minimal oversight and administrative cost to City compared to Contract Collection Service with City Rate Setting Control option. Constraints: <ul style="list-style-type: none"> City resources needed for contracting and administration. No control in rate setting for collections services and solid waste management funding or direct billing/ outreach relationship with City residents. 	Opportunities: <ul style="list-style-type: none"> Raises awareness of City role in solid waste management. Minimal changes and updates needed to educate residents on changes in billing. Constraints: <ul style="list-style-type: none"> Potentially no direct relationship with City residents. Less control over hiring staff and meeting City's social objectives than City-Owned and -Operated option. 	Opportunities: <ul style="list-style-type: none"> Direct regulatory oversight over compliance and progress toward meeting City climate action and solid waste management goals The WUTC is in alignment with regulatory oversight within State standard practices. Constraints: <ul style="list-style-type: none"> Legal and procedural requirements and implications to be evaluated and considered for City taking over control of collection. City goals may be more aggressive than state regulations. 	Opportunities: <ul style="list-style-type: none"> Direct control over mandatory collection or changes in service. Direct control over challenges with illegal dumping Constraints: <ul style="list-style-type: none"> City would have less operational control relative to City-Owned/Operated over adapting collection to higher levels of service.



CITY OF
BAINBRIDGE ISLAND

City Council Study Session Agenda Bill

MEETING DATE: July 18, 2023

ESTIMATED TIME: 30 Minutes

AGENDA ITEM: (6:40 PM) Review Results of Fehr & Peers Project Measuring Greenhouse Gas Emissions Associated with Sustainable Transportation Plan Actions,

SUMMARY: The City contracted with the firm Fehr & Peers to evaluate the estimated reduction in greenhouse gas emissions associated with implementation of Scenario 2 from the Sustainable Transportation Plan; evaluate additional scenarios to determine which strategies and transportation projects could provide substantial progress towards reducing greenhouse gas emissions on Bainbridge Island; establish an updated measure of Vehicle Miles Traveled and transportation-related greenhouse gas emissions data for the Island; and to analyze the impact of federal and state policies and legislation on future transportation emissions.

AGENDA CATEGORY: Presentation

PROPOSED BY: Executive

RECOMMENDED MOTION: Information only.

COMMUNITY ENGAGEMENT AND OUTREACH: An online StoryMap communicating the key results of this work and a full report will be posted on the City website this summer.

FISCAL IMPACT:

Amount:	
Ongoing Cost:	
One-Time Cost:	
Included in Current Budget?	

BACKGROUND: In 2020, Bainbridge Island adopted their first Climate Action Plan (CAP), which is a comprehensive roadmap to reducing the City’s greenhouse gas emissions and increasing the island’s resiliency to climate change. The CAP outlines specific actions that the City and community should undertake to help reduce emissions 95% by 2045, compared to a 2014 baseline.

Transportation, including on-road and off-road vehicles, air travel, and ferry travel, contributed over a third of Bainbridge Island community emissions in 2018. The CAP includes a goal to reduce transportation-related greenhouse gas emissions primarily through a reduction in Vehicle Miles Traveled (VMT) traveled on the island and the electrification of public and private vehicles. Efforts to electrify the ferry system and reduce air travel by Island residents will also help reduce transportation-related emissions.

In alignment with CAP goals to reduce transportation-related emissions and support safe mobility for all Island residents and visitors, the City completed a Sustainable Transportation Plan (STP) in 2022. The STP establishes the long-range vision for a comprehensive transportation system (streets, transit, trails, etc.) that improves mobility and safety for all users while respecting the character of neighborhoods and maintaining a climate resilient environment. Scenario 2, Connecting Centers, in the STP was adopted by City Council as the preferred implementation plan.

City Council authorized the City Manager to execute a professional services agreement with Fehr & Peers for measuring greenhouse gas emissions associated with Sustainable Transportation Plan actions and developing an update to the City's Transportation Impact Fees at the June 29, 2022 Council meeting. An update to the City's traffic impact fees (TIFs) associated with this project was previously discussed at the March 21, 2023 City Council Study Session. Tonight's presentation is focused on work by Fehr and Peers to:

- measure the greenhouse gas emissions reduction potential of the Connecting Centers scenario from the STP,
- evaluate additional scenarios to determine which strategies and transportation projects could provide substantial progress towards reducing greenhouse gas emissions on Bainbridge Island,
- establish 2021 VMT and transportation-related greenhouse gas emissions data for the Island, and
- analyze the impact of federal and state policies and legislation on future greenhouse gas emissions related to transportation.

An online StoryMap communicating the key results of this work is temporarily available at <https://arcg.is/1ffK5i>, and a final StoryMap and full report will be posted on the City website this summer.

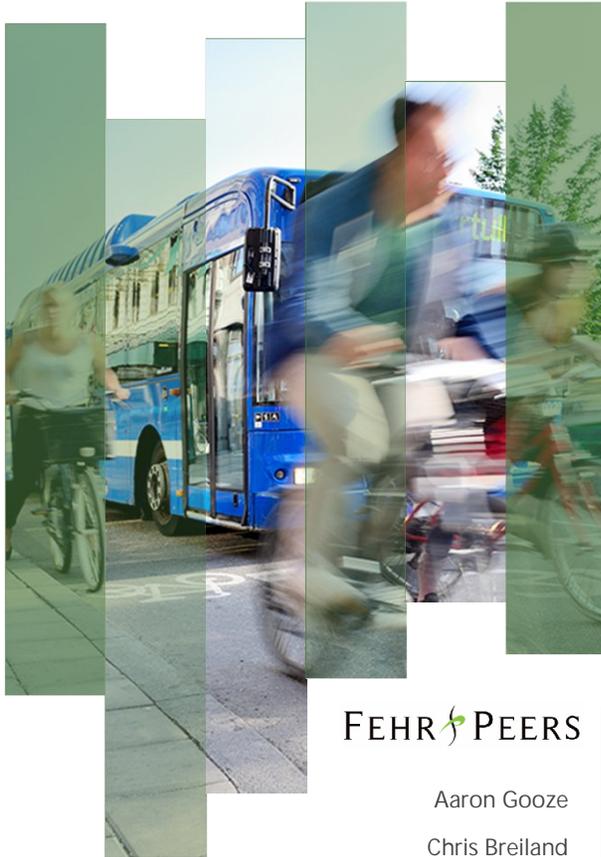
ATTACHMENTS:

[Presentation for Fehr and Peers at City Council Meeting 07.18.23.pptx](#)

FISCAL DETAILS: A total of \$123,670 was contracted for this work in July 2022, which is expected to conclude before the end of 2023.

Fund Name(s):

Coding:



FEHR & PEERS

Aaron Gooze
Chris Breiland
Marissa Milam
July 18, 2023

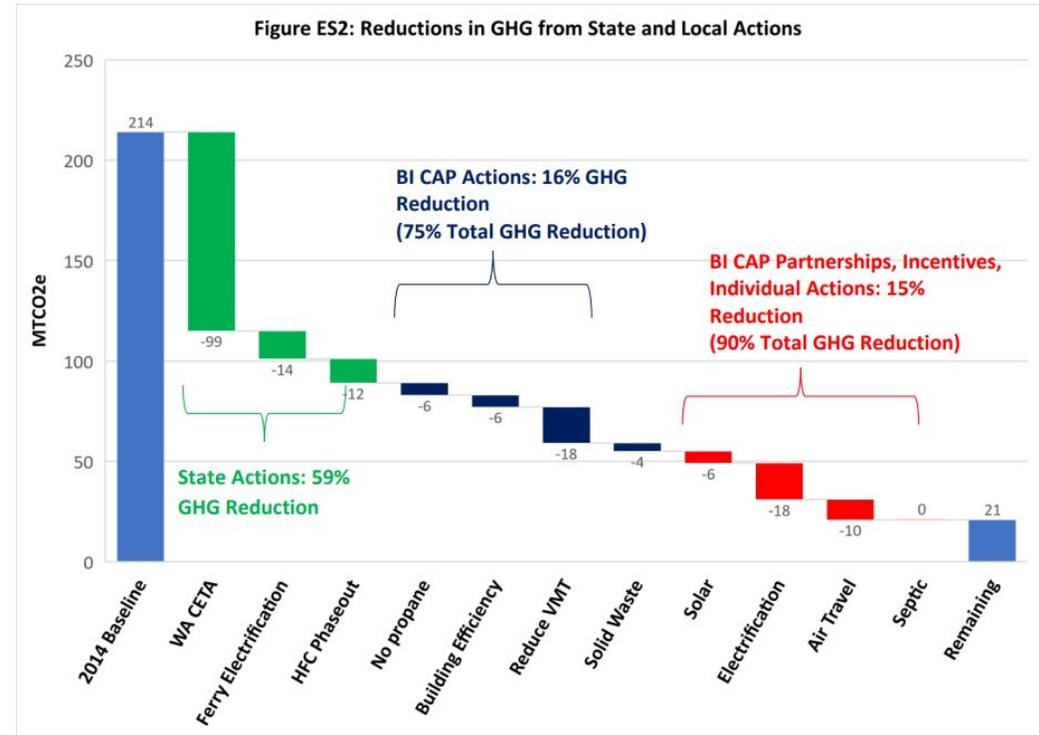
Bainbridge Island – Sustainable Transportation

Agenda

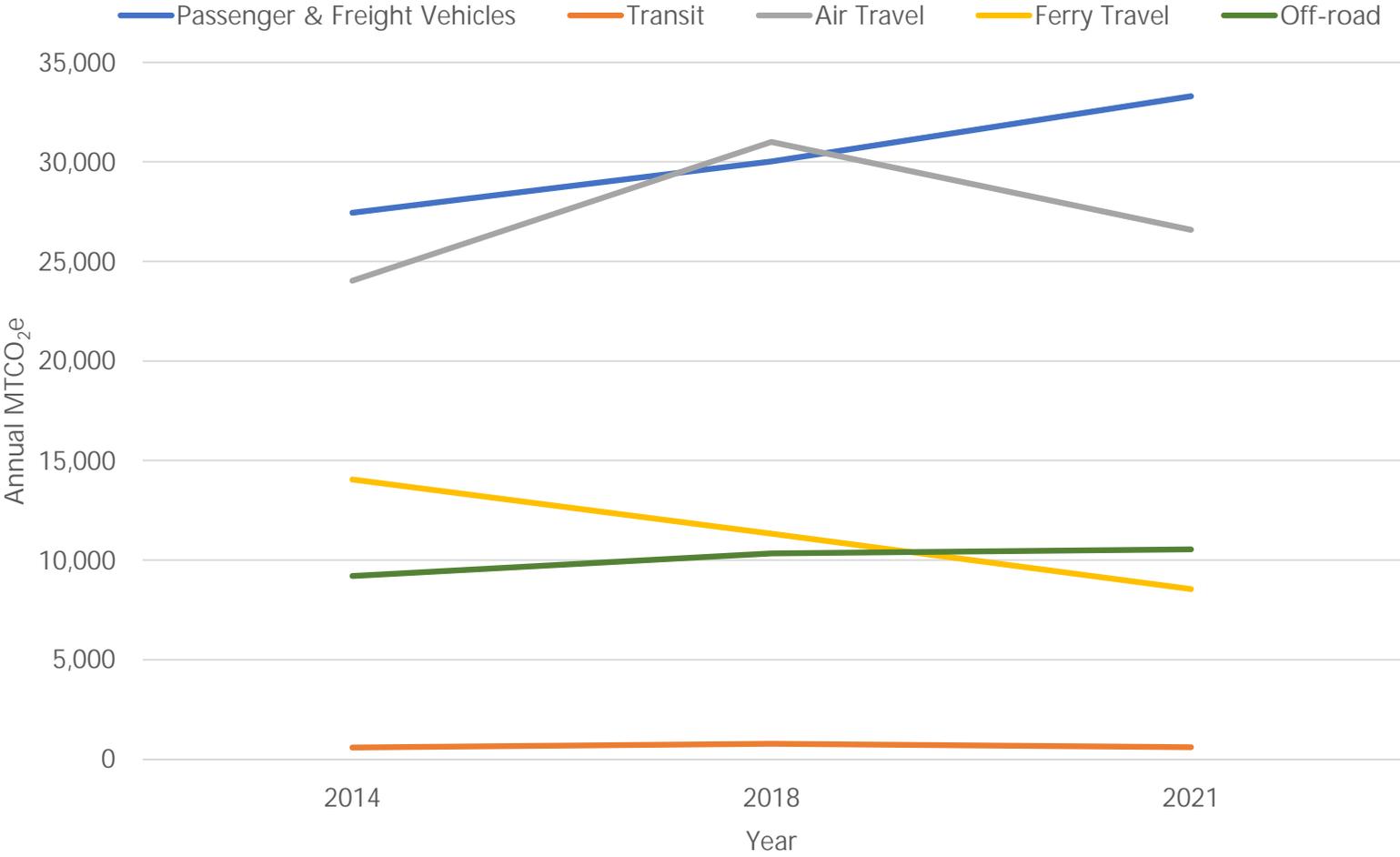
- 1) Greenhouse Gas Emissions (GHG) Inventory
- 2) Impact of Federal & State Actions on GHG Emissions
- 3) Sustainable Transportation Plan (STP) Evaluation
- 4) Additional Strategies Evaluation
- 5) Findings and Recommendations

Bainbridge GHG Reduction Goals

- Reduce community greenhouse gas emissions 25% by 2025, 60% by 2035, and 90% by 2045 compared to 2014 levels
- Reduce VMT per capita 25% by 2030, and 50% by 2045
- Increase public transit mode share from 2% to 5% by 2030, and to 10% by 2045
- By 2045, electric vehicles should be 80% of total vehicles



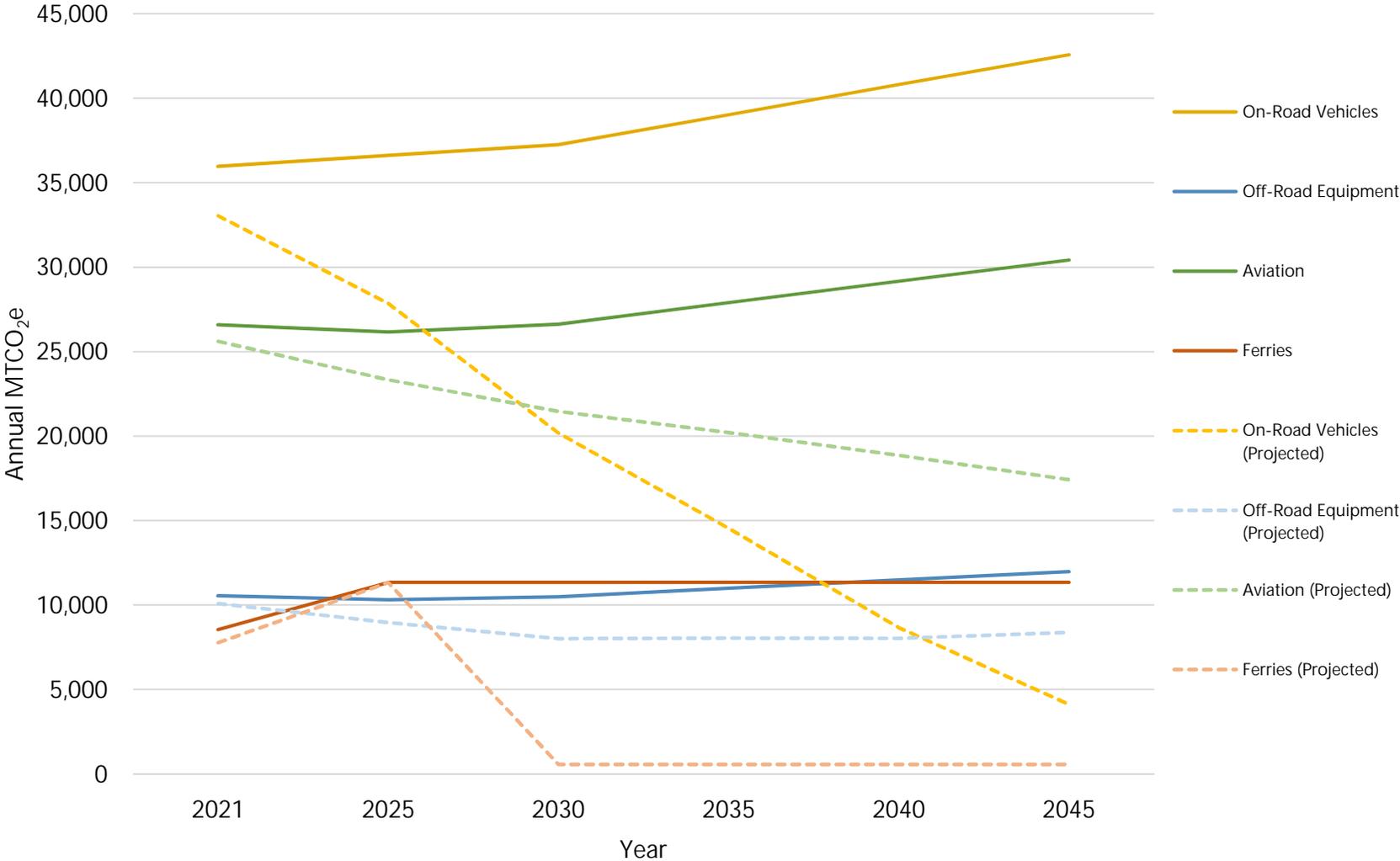
2021 GHG Inventory



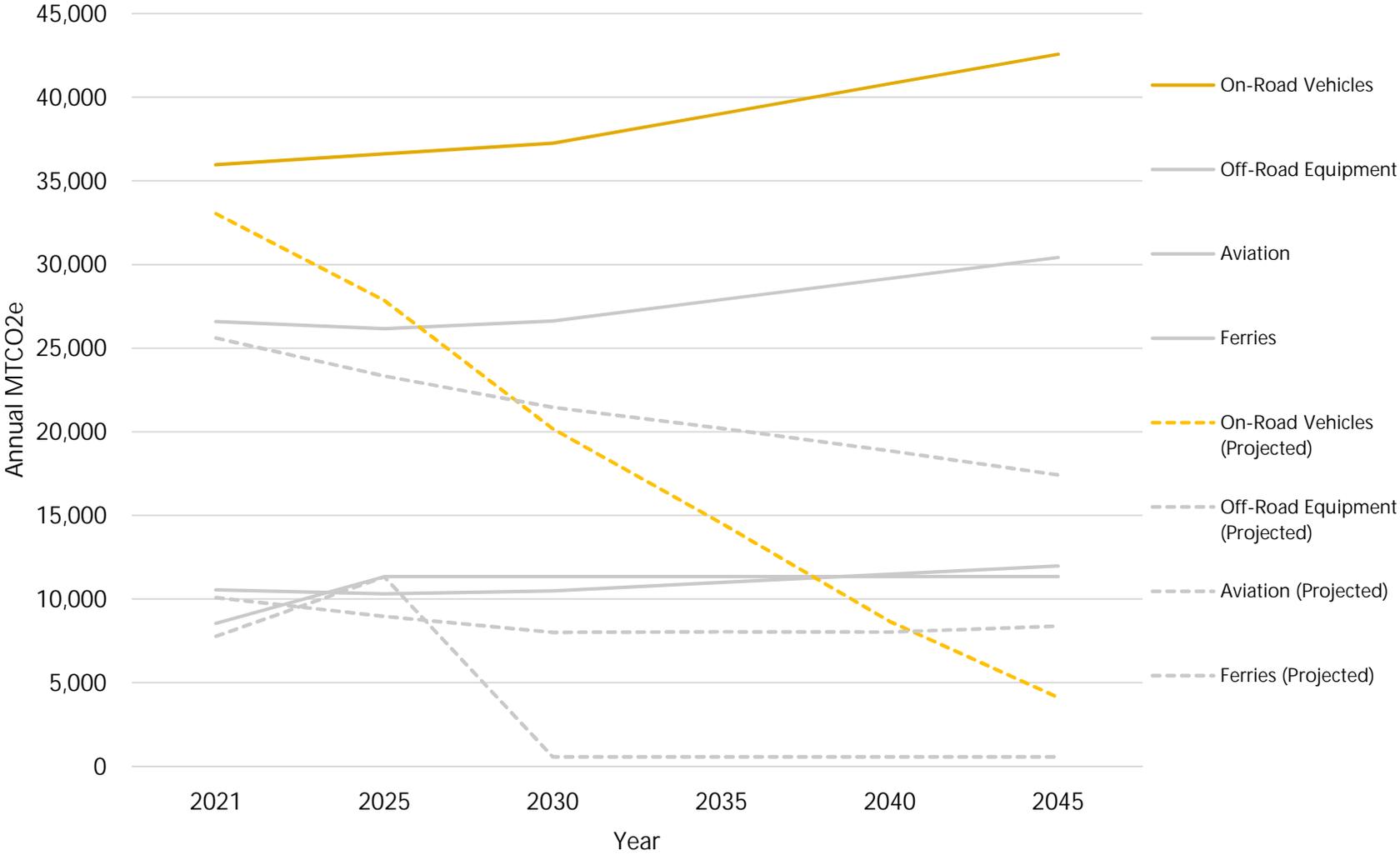
Federal & State Actions for Transportation

Policy/Legislation	Detail
Federal Vehicle Regulations (CAFE)	Improved fuel economy standards for passenger cars and light trucks
WA Clean Fuel Standard	Requires 20% reduction in carbon intensity of transportation fuels by 2038, compared to 2017 baseline
WA Internal Combustion Engine Ban	Sets target that 100% of new vehicles sales are EV by 2030
WA Climate Commitment Act	Places an economy-wide cap on carbon to meet state GHG reduction targets
Air Transport Action Group 2050 Plan	Achieve net zero aviation operations by 2050 through technology advancements, infrastructure improvements, and sustainable aviation fuels
WA State Ferry System Electrification Plan	Electrify the WSF system
PSRC Vision 2050	Blueprint for the region's transportation vision, programs, and infrastructure projects over the next 30 years

Business as Usual vs Projected Emissions



Business as Usual vs Projected Emissions



Estimated Reduction in Annual GHG Emissions from Federal, State, and Regional Actions

Action	Reduction in Greenhouse Gas emissions by 2045 from 2014 Baseline (MTCO ₂ e)	
	Climate Action Plan Goal	Reductions from Federal, State, and Regional Actions
VMT reduction	-18,000	0
On- & off-road vehicle electrification	-18,000	-25,000 ✓
Ferry electrification	-14,000	-13,400 ✓
Air travel reduction and improved fuel efficiency	-10,000	-6,000

Federal, State, and Regional Actions do not address goal of reducing GHG Emissions by reducing VMT

Sustainable Transportation Plan

City of Bainbridge Island

SCENARIO 2: Connecting Centers

\$31 MILLION OVER 6 YEARS

The Connecting Centers Scenario begins with the same existing funding sources included in the Status Quo Scenario and adds \$16 million in additional funding. It is geared toward encouraging the City to make new investments in transportation projects and programs, with potential voter-supported funding as a complement early on or midway through implementation. With nearly \$31 million available over 6 years, this scenario focuses on rapid implementation and delivery of a marquee "Connecting Centers" project that would provide a complete all-ages-and-abilities spine, as well as traffic calming projects on key routes.

The Connecting Centers Scenario:

- Addresses the top **13 priority traffic calming locations** on the Island
- Completes **5 planned projects** and **8 "quick win" Island-wide projects**
- Advances **6 mobility projects**
- Delivers the **Connecting Centers project**
- Includes funding for **1 year of the electric shuttle pilot**
- Supports **12 programs and policies**
- Gives us **4 new staff positions**

Full implementation of Scenario 2:

- Double the city's bicycle network
- 30% increase in sidewalk mileage
- 13 traffic calming projects
- 3 mobility hubs
- Provide education and outreach

Sustainable Transportation Plan Evaluation

- Construction of all capital projects in Scenario 2 would create a strong active transportation network that connects key destinations across the island, including schools, neighborhood centers, and downtown Winslow
- Resulting mode shift could generate 600,000 new walk trips, and 1,000,000 new bike trips annually
- Total Vehicle Miles Traveled (VMT) for Bainbridge Island could be reduced by 6%
- Additional strategies required to further reduce VMT and achieve city's climate action goals

Additional Strategies

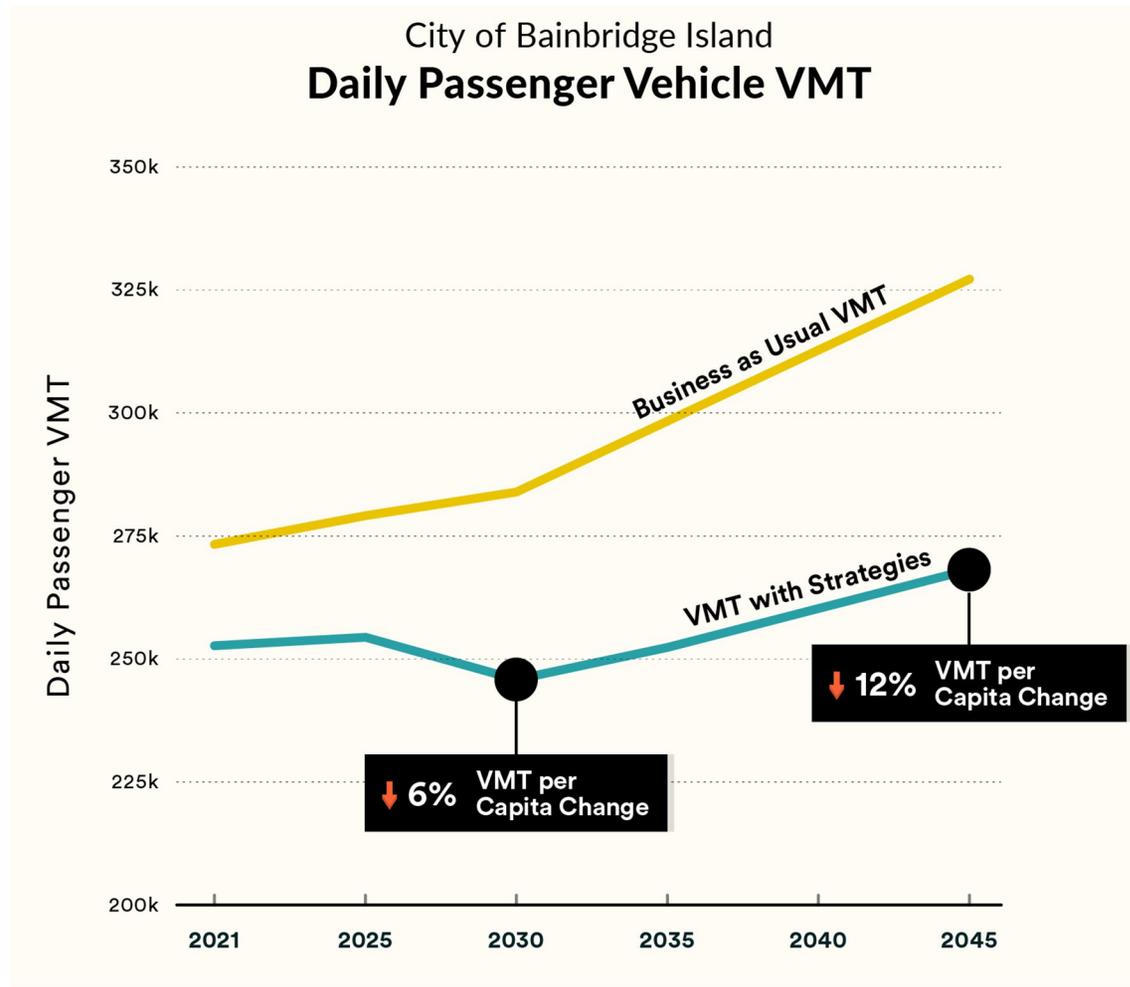
Additional strategies to reduce VMT were chosen because they:

- can be directly implemented by the City, or
- are already planned or are funded, or
- are well suited to mitigate longer vehicle trips on/off island, which contribute substantially to the city's VMT, or
- have started to emerge as a result of social and technological change

Strategy Detail

Strategy	Notes and Assumptions
STP Connecting Centers	Implement the projects and programs listed in the Connecting Communities Scenario of the STP
Transit	Increase transit options through implementation of Kitsap Transit's Long Range Plan, including new fixed-route and expanded on-demand service across the island
Telework	Maintain the increase in teleworking observed during the pandemic
Land Use – Workforce Housing	Build more multifamily housing in Winslow, with a subset of developed units designated as workforce housing
Land Use – Retail Trips	Support recent trends in ecommerce to reduce off-island single-occupancy vehicle retail trips
Parking Pricing	Charge a fee for on-street parking spaces in Winslow
Car Share	Develop a fleet of electric carshare vehicles in Winslow
E-Bike Subsidies	Provide a subsidy or rebate to households for e-bike purchases

Strategy Evaluation – Vehicle Miles Traveled

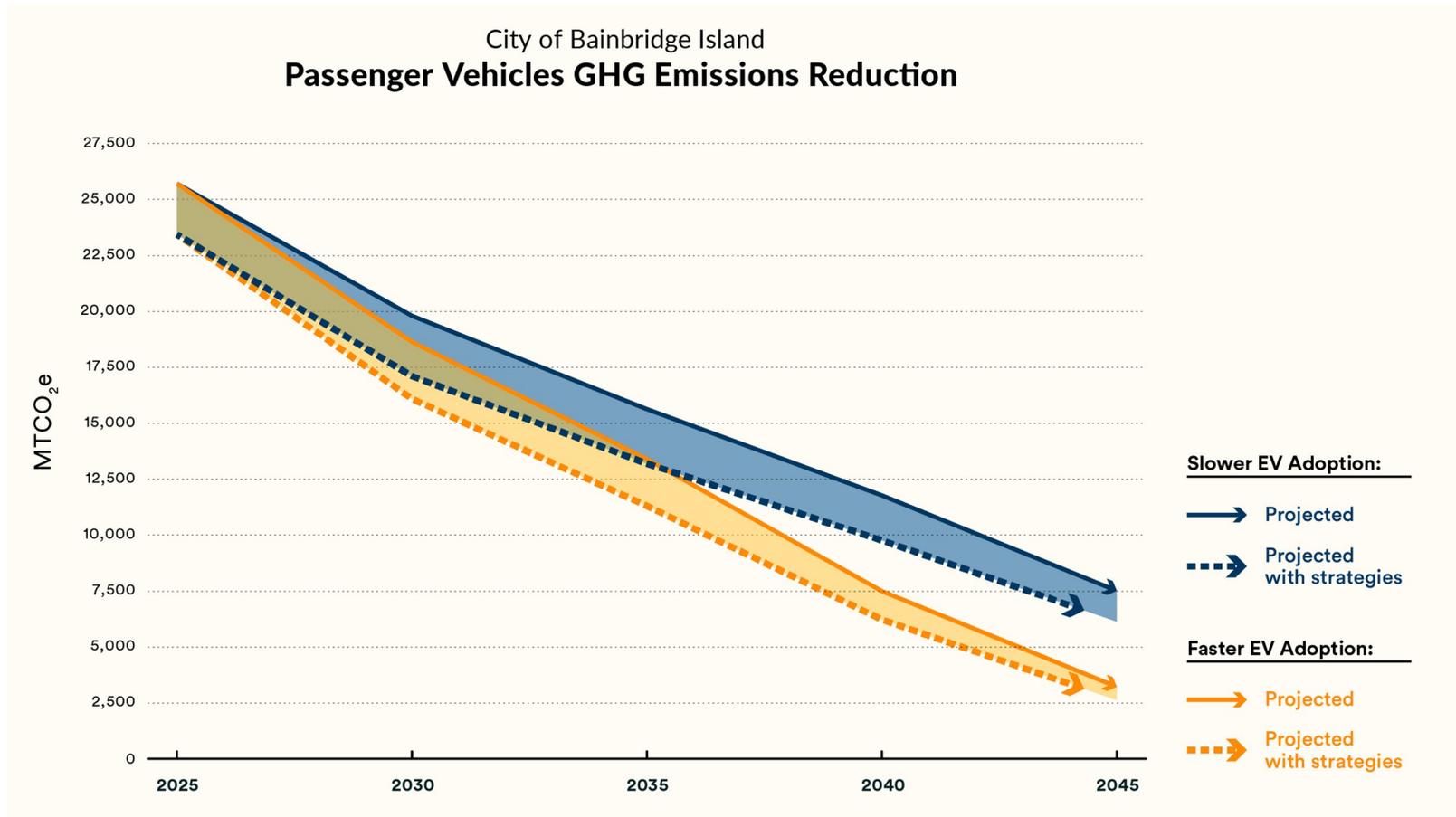


Electric Vehicle Adoption Rates

- Bainbridge has a strong foundation for rapid EV adoption, with ~3% EV passenger vehicles as of 2021, compared to <1% for Kitsap County
- WA Internal Combustion Engine Ban sets target that 100% of new vehicles sales should be EV by 2030
 - For analysis, more conservative approach used: 65% EV sales by 2030, 100% by 2035
 - Could result in ~40% EV share by 2035, and 85% by 2045
- Given uncertainties in vehicle turnover and adoption rates, we analyzed two different GHG emissions scenarios

Strategy Evaluation – GHG Emissions Reduction

Slower EV adoption results in a greater share of internal-combustion engine vehicles within the vehicle fleet, and therefore any VMT reduction will result in a greater GHG emission reduction than a more aggressive EV adoption scenario



Transportation GHG Emissions

Action	Reduction in Greenhouse Gas emissions by 2045 from 2014 Baseline (MTCO ₂ e)	
	Climate Action Plan Goal	Estimated Reduction
VMT reduction (all strategies)	-18,000	-600 MTCO ₂ to -1,400 MTCO ₂
On- & off-road vehicle electrification	-18,000	-25,000 ✓
Ferry electrification	-14,000	-13,400 ✓
Air travel reduction and improved fuel efficiency	-10,000	-6,000
Total	-60,000	-40,000

Bridging the gap to Climate Action Plan goals

Aggressively pursue funding and implementation of planned strategies

- STP projects & programs, Kitsap Transit investments

Begin to pursue funding and planning to implement effective strategies

- E-Bike subsidies are a strong candidate for a pilot program

Consider additional land use strategies that can reduce VMT

- Including the development of retail and housing that have the potential to reduce off-island travel

Invest in public electric vehicle charging infrastructure to meet projected demand

Continue to track VMT over time to measure progress

Next Steps

Web-based executive summary: <https://arcg.is/1ffK5i>

Final report to be shared in early August

Executive Summary



Bainbridge Island Sustainable Transportation & GHG Emissions

Key takeaways and findings on travel behavior and transportation greenhouse gas (GHG) emissions for the City of Bainbridge Island.

Fehr & Peers
July 13, 2023



Executive Summary

CITY OF BAINBRIDGE ISLAND Bainbridge Island Sustainable Transportation & GHG Emissions

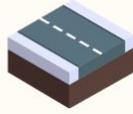
Background Travel Behavior on the Island GHG Inventory GHG Wedge Analysis Strategy Evaluation

Wedge Analysis Summary

The wedge analysis shows that while federal and state policies will significantly reduce transportation-related GHG emissions over the next 20 years, additional local efforts are needed to meet the City's emissions reduction target. Furthermore, these policies rely on aggressive electric vehicle adoption rates that may not be feasible given vehicle costs, charging constraints, and range limitations.

Bainbridge Island has high rates of electric vehicle adoption compared to Kitsap County and the region as a whole (approximately 3% of passenger vehicles on Bainbridge Island were electric in 2021, compared to less than 1% of Kitsap County vehicles), which provides a strong foundation for rapid EV adoption, a key component of projected transportation emissions reduction for the city. However, other CAP goals, such as a 25% reduction in VMT per capita by 2030 and a 50% reduction by 2045, cannot be addressed by electrifying passenger vehicles.

City of Bainbridge Island Strategies are expected to have co-benefits that extend beyond reducing VMT and GHG emissions

-  Improving public health by reducing toxic air contaminants and increasing physical activity
-  Reducing energy and fuel use and costs
-  Improving ecosystem health through better water and soil quality
-  Reducing congestion
-  Reducing wear and tear on City roadways and associated maintenance requirements and costs
-  Improving safety for vulnerable road users like pedestrians and cyclists

Executive Summary

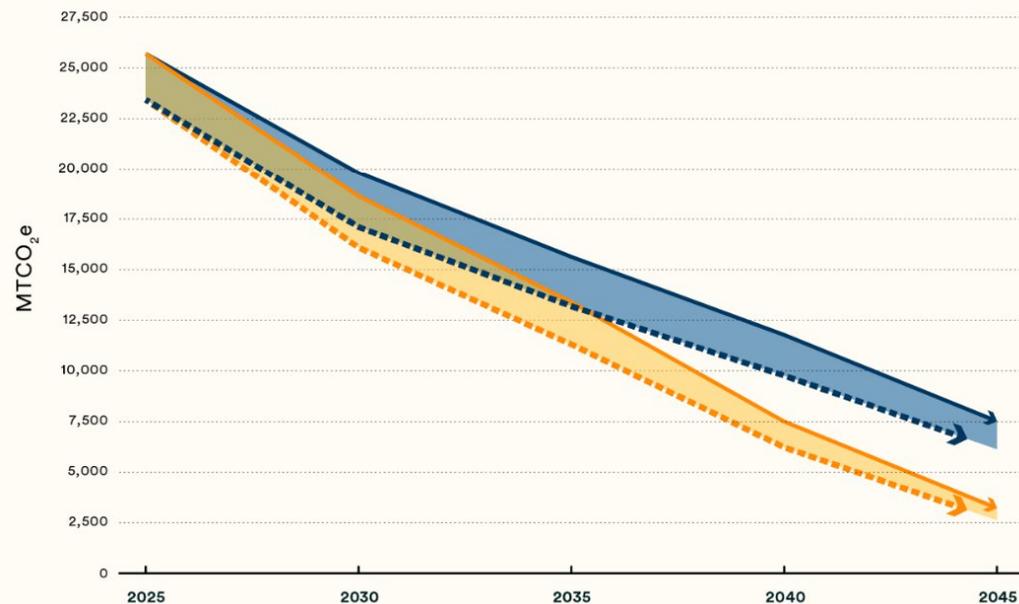
On-Road GHG Emissions Reduction

Given the uncertainty around electric vehicle (EV) adoption rates, the analysis considered the GHG emissions reduction potential of all strategies under two EV adoption scenarios:

- **Slower EV adoption:** 50% of new vehicles sales EV by 2030, and 100% by 2040.
- **Faster EV adoption:** 65% of new vehicle sales are EV by 2030, and 100% by 2035.

The provided chart shows the expected GHG emissions reduction from the selected strategies under both scenarios.

City of Bainbridge Island Passenger Vehicles GHG Emissions Reduction



Slower EV adoption results in a greater share of internal combustion engine vehicles within the vehicle fleet, and therefore any VMT reduction will result in a greater GHG emission reduction than a more aggressive EV adoption scenario.

- Slower EV Adoption:**
- Projected
 - Projected with strategies
- Faster EV Adoption:**
- Projected
 - Projected with strategies