MASON COUNTY 2017 COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

By: Mason County Solid Waste Advisory Committee
Mason County Public Works
100 W. Public Works Drive
Shelton, WA 98584

PURPOSE OF DOCUMENT

This Comprehensive Solid Waste Management Plan meets the requirements of RCW 70.95 and the Washington Department of Ecology's requirements for a Solid Waste Management Plan.

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Mason County Solid Waste Advisory Committee

Eric Nelson, PE, District 1 Representative

Jeff Bickford, District 2 Representative

Cheryl Williams, District 3 Representative

Kevin Schmelzen, District 3 Representative

Jason Dose, City of Shelton Representative

Rik Frederickson, Mason County Garbage, Industry Representative

Delroy Cox, JDEL Consulting, Industry Representative

Mason County Board of Commissioners

Randy Neatherlin, District 1

Kevin Shutty, District 2

Terri Drexler, District 3

Mason County Staff

Maria Machado, Environmental Health Specialist I, Environmental Health Division

Melissa McFadden, PE, Former Deputy Director/County Engineer, Public Works

Debbie Riley, Environmental Health Manager, Environmental Health Division

Bart Stepp, PE, Deputy Director/Utilities & Waste Management, Public Works

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EXECUTIVE SUMMARY

Background

This *2017 Mason County Consolidated Solid Waste Management Plan* (CSWMP) is a complete revision of, and supersedes, the *Mason County Solid Waste Management Plan 2006* and its 2011 *Addendum*.
The *Solid Waste Management Reduction and Recycling Act, Chapter 70.95* of the Revised Code of Washington (CH 70.95 RCW) requires a review/update of the Department of Ecology (Ecology) approved county solid waste management plans every five years to keep them current so timely update planning of the existing documents began in 2013. However progress on the document revision was extremely slow and due to turnover of Utilities and Waste Management Department personnel, along with budgetary constraints, it became evident that a revised document could not be produced using normal waste management plan development methods. Therefore a decision was made in May, 2015 that the Solid Waste Advisory Committee (SWAC), including the City of Shelton, would take primary responsibility for developing the updated/revised solid waste management plan. Following discussions during many preliminary planning and scoping meetings it became evident that the form and generic content of the existing documents were not suitable for updating so the SWAC decided that a new document would be produced.

This new CSWMP was developed using information contained in "*Guidelines for Development of Local Comprehensive Solid Waste Management Plans and Plan Revisions"* (Ecology Publication No. 10-07-005) and considering "*Moving Washington Beyond Waste and Toxics"* (Ecology Publication No. 15-04-019).

Organization

Chapter 1 describes the goals of this plan to reflect the desired outcomes for the waste stream, waste reduction, and recycling to achieve over the next twenty years (2037) with emphasis on the first six years (2023). Chapter 2 provides information about plan objectives and recommendations that implement its goals for solid waste management. Chapters 3 through 7 discuss the various elements of the solid waste management system in Mason County, and provide the information related to existing conditions along with specific recommendations where applicable. Chapter 8 provides a discussion of participant roles in the new plan development and Chapter 9 describes the relationship of this plan to other relevant Mason County planning documents along with a short discussion of solid waste handling facility permitting requirements. Chapter 10 is a status of how this plan continues to implement the unfulfilled recommendations of the previous plan. The Appendices contain supporting information for developing and understanding the CSWMP along with the resolution of comments received during the plan review and approval process (including the SEPA review).

Summaries of Chapters 3 through 7

While Chapters 1 and 2 summarize the goals, objectives, and activities developed further in subsequent chapters, it is worthwhile to emphasize some of the information contained in those chapters in this Executive Summary to provide Utilities and Waste Management personnel and the Mason County Board of County Commissioners (BOCC) with near-term planning considerations.

Chapter 3 – Solid Waste Handling Methods & Systems

The Eells Hill Transfer Station and Rural Drop Box facilities are described with a compilation of use statistics and current user fees. The current status of known landfills in Mason County is also discussed with a description of regulatory requirements that must be adhered to until these sites attain complete closure as authorized by Ecology.
Specific Needs and Opportunities identified are:

- Evaluate the physical and economic impacts of implementing flow control at Mason County solid waste facilities.
- For safety and operational considerations, implement suggested upgrades and improvements at the Eells Hill and rural drop box stations (Detailed in Appendix A).
- Prior to the expiration of the hauling contract with Republic Services, the County should evaluate the potential benefits of having a private contractor take over operations of facilities as well as providing hauling services and issue a RFP to explore privatization of the facilities and construction of a new transfer station at Eells Hill.

Chapter 4 – Waste Reduction, Reuse and Recycling

Details of existing waste reduction, recycling and composting practices, collectively known as "waste diversion" practices, are discussed and recycling statistics are presented. Useful waste diversion web sites are identified for public use along with a discussion of the waste audit program offered to businesses for their waste reduction use. Public Education and outreach programs related to waste diversion are also discussed.
Specific Needs and Opportunities identified are:

- The ability to quantify the results of waste reduction activities needs to be developed to allow measuring progress towards waste diversion goals
- Public awareness of recycling benefits must be increased.
- A usable food waste composting process would reduce landfill disposal volumes.
- Diversion of yard debris/wood waste volumes at drop box/transfer station should be increased.
- Increased Utilities and Waste Management Department presence in schools and at public events is needed to bring attention to waste diversion options and services available. The last known public solid waste survey was conducted in 2005.
- Unpaid internships could be used to conduct "special projects" (related to solid waste) for Utilities Waste Management personnel encumbered by other priorities.

Chapter 5 – Moderate Risk Waste Management

Moderate Risk Wastes (MRW) are household hazardous wastes that are exempted because they are generated by consumers in their homes or are hazardous wastes that are below the threshold quantity for regulation. Typical household use products are identified and disposal practices at the Eells Hill/rural drop box facilities are discussed. Deficiencies at the county facilities are referenced (Chapter 3 and Appendix A) and the most critical near-term items are identified. Mason County public education efforts are described along with employee health and safety requirements. Ecology's database for hazardous waste generators and hazardous sites is referenced.

Specific MRW Needs and Opportunities identified are:

- Eells Hill immediate repair/upgrade needs
    1. Repair/replace and freeze protect emergency eyewash/shower stations
    2. Install a new pump in the wastewater holding tank
    3. Install a rain curtain in the waste oil handling bay
    4. Assess the HHW facility for relevant Code compliance and functional performance
    5. Assess fire risks and on-site response capabilities
- Drop Box Stations immediate repair/upgrade needs
    1. Install and/or repair perimeter fencing
    2. Install secondary containment for HHW sheds
    3. Install or repair damaged asphalt pavement around HHW collection areas
- Evaluate elimination of household hazardous waste (HHW) at Kitsap County solid waste facilities.

Chapter 6 – Characterization of the Waste Stream

Citing Environmental Protection Agency (EPA) and Ecology sources, it is noted that the Mason County municipal solid waste (MSW) per capita generation rate is 25% lower than the national average (0.6 tons versus 0.8 tons). The average percentage of total MSW volume being recycled from 2010 – 2015 is 8.78%. Statistics for MSW generated countywide (including the City of Shelton) are given for the years 2010 to 2015 along with 5-year increment projected generation rates for 2020 through 2040. Disposal of "special wastes" i.e., animal carcasses, asbestos, biomedical wastes, biosolids, septic tank sludge, construction & demolition wastes (C&D), disaster debris, electronic waste, and waste tires are discussed. No needs or opportunities have been identified for these special wastes when the identified methods are implemented.

Chapter 7 – Characterization of the Planning Area

The physical environment of Mason County is described and a map of the service area is presented with the location of all solid waste handling facilities. The past population data (1990 to 2015) is presented along with projected trends from 2015 to 2040. Accompanying the population information is a discussion of recent employment and economic data. The chapter ends with a brief discussion of land use trends. No needs or opportunities have been identified that include expansion of solid waste handling facilities beyond the areas already in use. Any expansion or new transfer station at Eells Hill can be built within the existing Eells Hill property that is already approved for solid waste use.

CHAPTER 1

GOALS FOR SOLID WASTE MANAGEMENT

Mason County has adopted the following goals for comprehensive solid waste management.

Planning Goals reflect the desired outcomes for the waste stream, waste reduction, and recycling to achieve over the next twenty years (2037) with an emphasis on the first six years (2023).

The goals of this plan are to describe the existing system and then lay the foundation for the proper management of solid waste systems in Mason County now and in the future. The standards by which programs will be developed and implemented are consistent with the requirements of the Revised Code of Washington (RCW), the Washington Administrative Code (WAC), and the Mason County Code of Ordinances. These goals have been developed in consultation with affected sections of the community. Each element of the Solid Waste Management Program must address the Plan's comprehensive goals, which are to:

1. Implement an economically sound solid waste management system, conforming to Federal, Washington State, regional, and local statutes and rules.

2. Seek a balance between public health requirements, environmental protection measures, and public expenditures.

3. Apply solid waste management priorities according to the state hierarchy.

4. Identify and consider implementation of emerging methods for improved management and handling of all waste.

5. Maintain an efficient and effective system of waste stream measurement and monitoring.

6. Maintain sufficient flexibility to allow adaptation of strategies in accordance with local resources and unanticipated changes, needs, and opportunities.

7. Foster cooperative and coordinated efforts among government agencies, citizens, and the private sector.

8. Ensure education and information elements are an integral part of all programs related to solid waste management and reduction.

9. Develop and implement a program evaluation and performance review schedule through the Solid Waste Advisory Committee (SWAC) and the solid waste staff.

10. Emphasize the development and implementation of the most efficient technologies for waste reduction, reuse, and recycling.

11. Consider waste reduction programs that will be a cooperative effort by the County and local municipalities to the greatest extent possible.

12. Evaluate public/private partnerships to consider if an arrangement can be made that benefits all participants.

13. Budget improvements and repairs to all transfer stations for safety, productivity, and maintenance improvements.

14. Enact and enforce a truck tarping ordinance in accordance with RCW 46.61 to reduce highway and road litter.

15. Encourage Mason County and City of Shelton to create and maintain “Adopt A Road” litter programs.

16. Enforce event recycling at all public and sporting events. RCW 70.93.093

CHAPTER 2

PLAN OBJECTIVES AND ACTIVITIES

Mason County has adopted a series of plan objectives and recommendations that implements its goals for Solid Waste Management. Work Plan Objectives are specific accomplishments to achieve over the next five years that show progress in achieving the plan's goals (2017-2022). Waste Reduction Activities are specific projects or actions to implement the Work Plan Objectives.

While each Work Plan Objective is important, five of them lead the way: waste reduction, recycling, composting, enforcement, and moderate-risk waste management. County and municipal solid waste management efforts will emphasize these objectives and their recommendations above the rest. As time, resources, and unique opportunities arise, the County will resume implementing the remaining ones. The Work Plan Objective for moderate-risk waste management follows separately in Chapter 5.

Each Work Plan Objective and its recommendations show the responsible party for implementation and the funding source. Implementation of these tasks is an ongoing process, with the Solid Waste Advisory Committee (SWAC) holding an annual review in April to determine progress.

2.1 Waste Reduction

Work Plan Objective: Explore and support incentives and programs that encourage waste reduction practices among citizens and within local governments, businesses, public institutions, and industry. Establish a base line volume for all Mason County solid waste facilities and provide timely reports showing diversion amounts and the annual amount of change for each facility and the system as a whole.

Waste Reduction Activities:

WR 1 Request technical assistance from the Washington State Department of Ecology (Ecology) to explore strategies for use by governments, institutions, businesses, and industry that encourage the use and purchase of products containing pre- and post-consumer recycled material content in the workplace.

- Solid Waste Program (SWP) staff to meet with Ecology to determine scope of assistance
- SWP staff to consult with SWAC in fall to determine scope of interest, topics
- Set the date to market a waste reduction workshop to interested groups, businesses
- Hold evening workshops(s)

Implementation: 2017

WR 2 Incorporate appropriate waste reduction strategies, including Product Stewardship programs, identified by the SWAC into existing educational outreach efforts.

Implementation: Ongoing

WR 3 Continue to support material reuse websites to encourage reuse of common household items among citizens.
Implementation: Ongoing

2.2 Recycling

Work Plan Objective: Reduce the County waste stream by 5% through an active recycling program.

Recycling Activities:

R 1 The SWP and the solid waste contractor will continue to market countywide the co-mingled container recycling program.
Implementation: Ongoing

R 2 The SWP will continue to fund recycling public education and information programs. The program will also explore new partnerships and techniques to deliver programs throughout the County.
Implementation: Ongoing

R 3 The SWAC will continue to explore new ways to expand recycling opportunities and programs for the public. The SWAC will hold a solid waste review every April that will include analysis of recycling activities over the past year and potential improvements.
Implementation: Ongoing

Funding Source: CPG Grant, Solid Waste Plan Fund #402, Contractor Collection Rates
Responsibility: County, SWAC, Solid Waste Division, City of Shelton, Solid Waste Contractors

2.3 Organics

Work Plan Objective: Continue to expand services and educational outreach and opportunities for handling organics.

Organics Activities:

O 1 The County will explore and / or consider working in cooperation with the Washington State University (WSU) Cooperative Extension, Master Gardener Program to promote backyard composter training, education, and sales to the public and school districts. The SWAC will support an outreach program.
Implementation: Ongoing

O 2 The County will maintain and expand a yard and wood waste collection program through the Eells Hill Transfer Station. At the annual Solid Waste Review, the SWAC will discuss status of public interest and cost to establish a yard waste collection program at Eells Hill Transfer Station.
Implementation: 2018

O 3 Solid Waste Division staff will consult with SWAC annually during the Solid Waste Review to determine if there is a need for technical assistance
Implementation: Ongoing

O 4 Continue to identify and track existing and past sites; monitor for compliance.
Implementation: Ongoing

Funding Source: CPG Grant, Solid Waste Plan Fund #402, Solid Waste Enforcement Grant
Responsibility: County, City of Shelton, SWAC, Solid Waste Division, Solid Waste Contractors, Environmental Health Division, Ecology

2.4 Enforcement

Work Plan Objective: Create a coordinated and effective approach for all enforcement agencies to resolve illegal dumping and reduce littering.

Enforcement Activities:

E 1 Consider alternative enforcement methods to reduce illegal dumping on public and private property.
Implementation: Ongoing

E 2 Mason County and the municipalities will continue to seek funding within their annual budget for abatements and illegal dumping enforcement within their jurisdictions.
Implementation: Ongoing

E 3 Support volunteer litter control programs such as the County's "Adopt A Road" program and consider developing a fund for volunteer programs on public lands.
Implementation: Ongoing

E 4 Build public support to prevent dumping through education and outreach programs.
Implementation: Ongoing

E 5 The County may provide assistance for the removal of abandoned vehicles.
Implementation: Ongoing

E 6 Strengthen and review countywide litter control activities.
Implementation: Ongoing

Funding Source: Solid Waste Enforcement Grant, Solid Waste Plan Fund #402, CPG Grant
Responsibility: County, SWAC, Environmental Health Division, Solid Waste Division, Shelton

2.5 Wood Waste

Work Plan Objective: Support efforts to find beneficial uses for wood waste.

Wood Waste Activities:

WW 1 The SWAC and the SWP will monitor County or regional discussions or proposals regarding the study and/or siting of wood waste landfills.
Implementation: Ongoing

WW 2 The SWAC may request technical assistance from Ecology to learn about opportunities for wood waste reduction and reuse. SWP staff will consult with SWAC annually during the Solid Waste Review to determine if there is a need for technical assistance
Implementation: Ongoing

WW 3 Continue to identify and track existing and past sites; monitor for compliance.
Implementation: Ongoing

Funding Source: Solid Waste Enforcement Grant, Solid Waste Plan Fund #402
Responsibility: County, SWAC, Solid Waste Division, Environmental Health Division, Ecology

2.6 Biosolids

Work Plan Objective: Encourage wastewater treatment plants in Mason County to find cooperative solutions to managing and disposing of biosolids.

Bio-Solids Activities:

BS 1 The County currently defers the management of biosolids to Ecology.
Implementation: Ongoing

Funding Source: Ecology
Responsibility: Ecology

2.7 White Goods

Work Plan Objective: Support the continued reuse or recycling of white goods through the Eells Hill Transfer Station, rural transfer stations, and private businesses.

White Goods Activities:

WG 1 The County will maintain updated lists on its Solid Waste Program website of private firms that recycle or reuse white goods.
Implementation: Ongoing

WG 2 The County will continue to encourage the recycling and reuse of white goods through the educational component of the Waste Reduction and Recycling Plan (see Chapter 4).
Implementation: Ongoing

WG 3 The County will encourage private recycling events that include white goods collection.
Implementation: Ongoing

WG 4 The County may subsidize a refrigerant collection program.
Implementation: 2017

Funding Source: CPG Grant, Solid Waste Plan Fund #402
Responsibility: County, Solid Waste Division

2.8 Construction and Demolition (C&D) Waste

Work Plan Objective: Support private sector efforts that emphasize the reuse of construction, demolition, and land-clearing wastes over land-filling

Construction and Demolition (C&D) Debris Activities:

C&D 1 The County will maintain updated lists on its Solid Waste Program website of private firms that manage, reuse, and/or dispose of C&D wastes.
Implementation: Ongoing

C&D 2 The County will continue to encourage the reuse and proper disposal of C&D waste through educational component of waste reduction and recycling plan.
Implementation: Ongoing

C&D 3 The Solid Waste Program and the Environmental Health Division will continue to monitor private C&D waste disposal sites regarding their long-term capacity.
Implementation: Ongoing

C&D 4 The County may request technical assistance from local interested parties, the construction industry, and the DOE to improve practices for C&D waste reduction and reuse.
Implementation: Ongoing

Funding Source: CPG Grant, Solid Waste Enforcement Grant, Solid Waste Plan Fund #402
Responsibility: County, Solid Waste Division, Environmental Health Division, Ecology

2.9 Asbestos Contaminated Wastes

Work Plan Objective: Ensure asbestos wastes are disposed in accordance with best management practices.

Asbestos Contaminated Wastes Activities:

A 1 The County will maintain updated lists on its SWP website of private firms that manage, reuse, and/or dispose of asbestos waste.
Implementation: Ongoing

Funding Source: Contractor Disposal Fees
Responsibility: County, Solid Waste Contractor

2.10 Medical Wastes

Work Plan Objective: Require the proper collection and disposal of personal medical wastes.

Medical Wastes Activities:

MW 1 Support private haulers of medical waste collection by maintaining updated lists of firms on its Solid Waste Program website.
Implementation: Ongoing

MW 2 Support outreach programs aimed at educating the public about proper disposal of prescription medications and Sharps. Sharps are defined in Revised Code of Washington (RCW) 70.95K.010 as "all hypodermic needles, syringes with needles attached, intravenous (IV) tubing with needles attached, scalpel blades and lancets that have been removed from the original sterile packaging, and epipen or auto-injectors".
Implementation: Ongoing

Funding Source: CPG Grant, Solid Waste Plan Fund #402
Responsibility: County, Solid Waste Division, Environmental Health Division, Mason County Sheriff's Office.

2.11 Waste Tires

Work Plan Objective: Continue efforts that emphasize proper disposal methods for waste tires.

Waste Tires Activities:

WT 1 The County will incorporate proper waste tire handling into the waste reduction and recycling educational program.
Implementation: Ongoing

WT 2 The County encourages the use of the Ecology's Waste Tire Removal Account for sites that contain more than 800 waste tires.
Implementation: Ongoing

WT 3 The County will allow the piling of waste tires only under permit from the Mason County Environmental Health Division. The County may require financial assurances to ensure post-closure clean-up.
Implementation: Ongoing

Funding Source: CPG Grant, Solid Waste Enforcement Grant, Solid Waste Plan Fund #402
Responsibility: County, Solid Waste Division, Environmental Health Division

2.12 Disaster Waste

Work Plan Objective: Establish and maintain an emergency management plan for handling wastes during and after disaster situations.

Disaster Waste Activities:

DW 1 The County may provide a system for transfer and disposal in the event of a disaster, i.e., earthquake or flood. In the past, if a disaster has caused waste that could be classified as a health

hazard, the Board of County Commissioners (BOCC) may pass a resolution on a case-by-case basis, waving the tipping fees at Eells Hill Transfer Station.
Implementation: Ongoing

DW 2 The County may make free disposal options available to the public during periods of declared emergency to ensure public health.
Implementation: Ongoing

DW 3 The County may contribute to County Disaster Planning as it relates to solid waste.
Implementation: Ongoing

Funding Source: Solid Waste Plan Fund #402, FEMA
Responsibility: County, Solid Waste Division, Solid Waste Contractors, Environmental Health Division, SWAC

2.13 Collection Activities

Work Plan Objective: The County and its service provider will maintain effective and efficient collection service that considers fairness, convenience, and accessibility of service for all County citizens.

Collection Activities:

CA 1 The County will ensure collection activities are consistent to evaluate success in meeting the Solid Waste Management Plan.
Implementation: Ongoing

Funding Source: Solid Waste Plan Fund #402
Responsibility: City of Shelton, County, SWAC, Solid Waste Division, Certificated Solid Waste Haulers and the Washington State Utilities and Transportation Commission.

2.14 Eells Hill Transfer Station and Rural Transfer Stations

Work Plan Objective: Maintain and operate Eells Hill Transfer Station and the system of satellite rural transfer stations that provides cost and operational efficiency, convenience to the public, and opportunities for recycling.

Eells Hill Transfer Station and Rural Transfer Stations Activities:

STS 1 The staff will conduct an annual operational review of the Eells Hill Transfer Station and its satellite system to evaluate whether the system continues to meet set objectives.
Implementation: Ongoing

STS 2 The Solid Waste Program and the contracted service provider will monitor the long-term transfer capacity of the system.
Implementation: Ongoing

STS 3 Operate the transfer stations as self-supporting enterprises in accordance with Washington Administrative Code (WAC) 173-350. Continue to structure user fees at the existing transfer stations to cover all costs.
Implementation: Ongoing

Funding Source: Solid Waste Plan Fund #402, Contractor Disposal Rates
Responsibility: County, Solid Waste Division, Solid Waste Contractor

2.15 Administration and Management

Work Plan Objective: Continue the present administrative and management structure to solid waste collection, transfer, and disposal.

Administration and Management Activities:

AM 1 Maintain staffing for the Solid Waste Program through the Department of Public Works to plan, administer contracts, and manage the solid waste and recycling system.
Implementation: Ongoing

AM 2 The SWAC and the Solid Waste Program will explore and implement partnerships with other local agencies and organizations for delivering of outreach and education programs.
Implementation: Ongoing

AM 3 Continue to monitor the contractual and management provisions in existing operating agreements and permits with all solid waste handling facility operators in the County.
Implementation: Ongoing

AM 4 The SWAC and the Solid Waste Program annually will evaluate its compliance with planning requirements under state law.
Implementation: Ongoing

AM 5 The municipalities shall monitor their solid waste programs to ensure compliance with the Solid Waste Management Plan.
Implementation: Ongoing

AM 6 Recruit memberships to the SWAC from each commissioner district, the Squaxin and Skokomish Indian Nations, the City of Shelton and commercial accounts.
Implementation: Ongoing

AM 7 Review and amend if necessary the SWAC by-laws.
Implementation: Ongoing

Funding Source: CPG Grant, Solid Waste Plan Fund #402, Municipal Budgets
Responsibility: County, SWAC, Solid Waste Division

CHAPTER 3 - SOLID WASTE HANDLING METHODS & SYSTEMS

3.1 Description of the Mason County Solid Waste System

The Mason County Solid Waste System (MCSWS) consists of a central waste transfer station at Eells Hill near Shelton, three rural drop box stations, and four known non-operating landfill areas. Figure 3.1 on the next page shows the location of the Eells Hill Transfer Station and the County's three drop box stations.

3.1.1 The Eells Hill Transfer Station

The purpose of the Mason County Eells Hill Transfer Station is to provide for the collection and transfer of wastes to an out-of-county disposal facility. The County built the transfer station in 1993 at the site of the former County landfill site which is located at 501 W. Eells Hill Road, Shelton, Washington.

The station is a full-service facility that accepts deliveries from private businesses, commercial collection route vehicles, commercial dropbox vehicles, County rural transfer stations, and the self-hauling public. The station has two covered unloading areas. The larger building allows for direct unloading onto a tipping floor for direct refuse unloading. A wheel-loader breaks down and places wastes into top-loading 100-cubic yard (CY) intermodal containers. A waste compaction or tamping arm compacts wastes. Ideally, well compacted trailers have an average weight of 27.5 tons. Mason County trailers typically average about 25 tons per trailer. Once loaded, trailers are hauled to a rail spur in Lewis County where they are loaded on to a train and shipped to the Roosevelt Regional Landfill in Klickitat County.

A scale house, office/storage building and limited household hazardous waste (HHW) collection area are also located at the Eells Hill Transfer Station. See Chapter 5 for a further discussion of HHW.

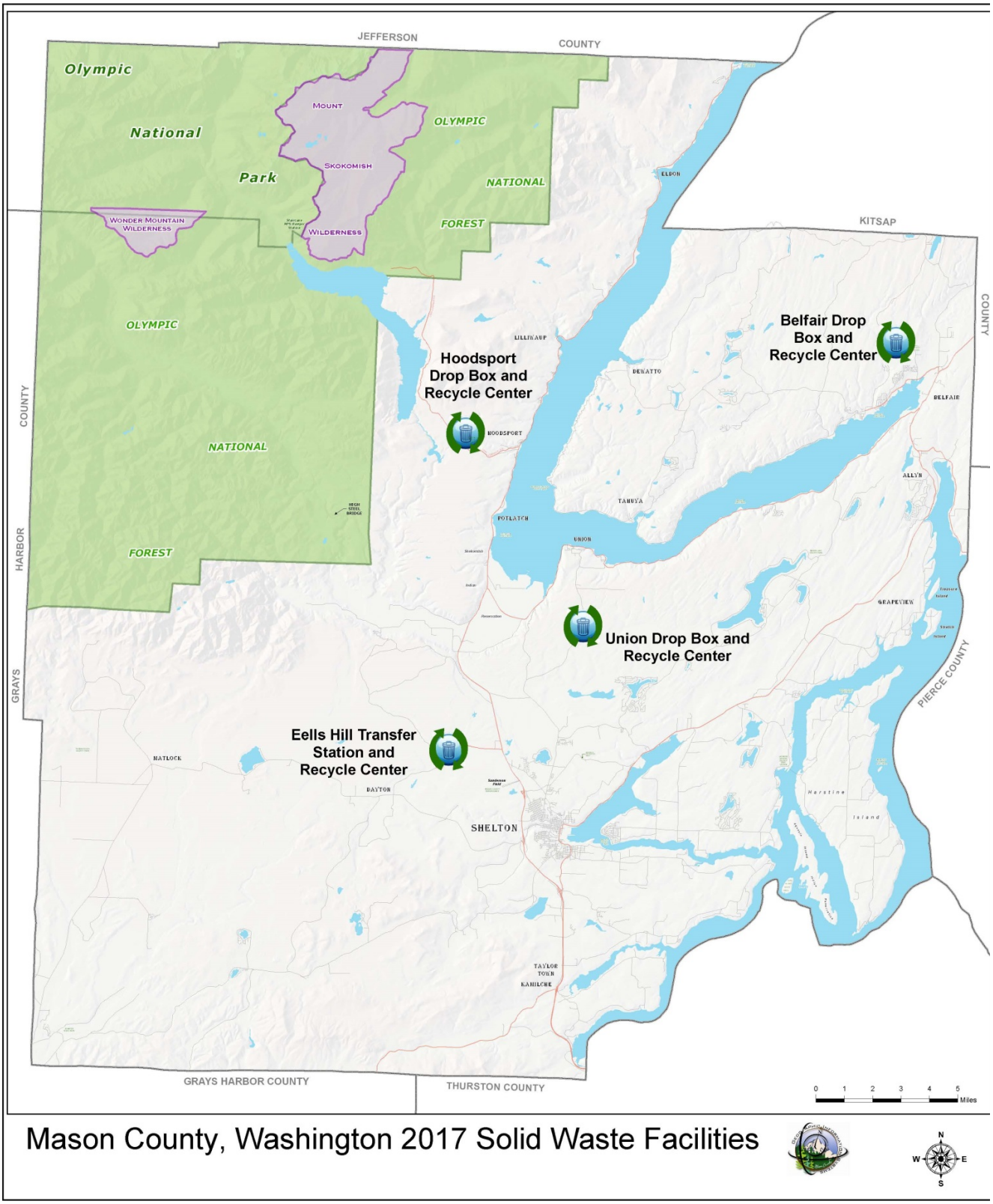
The design and operation of the facility complies with the State of Washington minimum Functional Standards for Solid Waste Handling (WAC173-350).

3.1.2 Rural drop box stations

The three rural drop-box stations are owned and operated by Mason County. The rural
Sites accept most materials accepted at the Eells Hill Transfer Station, but cannot accept commercial or institutional municipal solid waste, and some types of moderate-risk waste. See Chapter 5 for further HHW details.

The rural stations are located in Belfair, Union and Hoodsport. Belfair has the greatest use followed by Union and then Hoodsport. All three rural stations are similar in design and operation and each consists of a covered steel building for unloading waste, recycle containers and an attendant's booth. 40-yard containers are placed below the unloading area floor elevation and the solid waste is dropped directly into the containers without compaction.

Figure 3.1 Mason County Solid Waste Handling Facilities



3.1.3 Known Landfills Located In Mason County

The Eells Hill landfill is the only County-owned landfill which is closed and is currently undergoing the required 30-year post-closure surveillance and reporting program. Mason County has a contract with Parametrix to monitor the groundwater and complete the formal landfill closure documentation. To date the monitoring program has shown no indication of groundwater-leachate contamination. The monitoring information and results are available for public access on the County's website.

There are several other landfills within the County boundary that were owned/operated by private or commercial companies or the City of Shelton.

Shelton-Matlock Landfill

This landfill is located in the unincorporated Matlock area. It operated for an unknown period of time prior to its closure in 2001. While the landfill was open, it was receiving wood waste from nearby forest product operations. The landfill has a groundwater monitoring system in place and has been monitored since 1997. It is currently in post-closure stage and has continued to have groundwater monitoring as part of the post-closure agreement. As of early 2017, there is discussion on the potential for this landfill to end its post-closure care due to evidence that suggests the landfill has reached stability.

Simpson Dayton Landfill

This landfill is located in the unincorporated Dayton area. This landfill was also operated for an unknown period of time prior to its discontinued use in 2006. The material that was accepted at this site was mostly wood waste and an unlimited amount of wood ash. A groundwater monitoring system has been in place and monitored since 1997. In 2016, the closure process was completed and the application for a post-closure permit was submitted and officially accepted in early 2017. The landfill is now permitted for post-closure care.

City of Shelton – C Street Landfill

The C Street landfill is located on a 16.7 acre parcel located southwest of the intersection of West C Street and US Highway 101. The property was acquired by the City in 1928 for use as a municipal landfill. Landfilling operations occurred at the site between 1928 and 1974. After that time, municipal solid waste was sent to the Eells Hill facility to the northwest of Shelton. The City of Shelton has entered into an Agree Order (DE 12929) with the Washington State Department of Ecology and is working with the agency to conduct a Remedial Investigation and Cleanup Action Plan as well as to finalize closure of the facility.

The Owner or Operator of any landfill must provide post-closure activities to allow for continued facility maintenance and monitoring of air, land and water for as long as necessary for the landfill to stabilize to protect human health and the environment. For budgetary planning purposes, the Owner or Operator must plan for a minimum post-closure monitoring period of twenty years. The post-closure monitoring period may end when authorized by the Jurisdictional Health Department (JHD) and approved by the Director of the Department of Ecology.

3.1.4 Surveillance and Control

Mason County Public Works and its employee's operate the Eells Hill Transfer Station and all drop box facilities within the County. The Mason County Environmental Health Division (EHD) provides oversight and compliance inspections of all Mason County solid waste facilities. The landfill closure sampling and

monitoring program is performed by Parametrix Incorporated. Required periodic reports for the sampling and monitoring program are provided to Mason County Public Works and forwarded to the Washington State Department of Ecology (Ecology). The reports are also available electronically on the Mason County Utilities and Waste Management website.

3.2 Service Levels

The level of solid waste disposal services provided and the associated costs depend on the customer and waste source. As noted above, the Eells Hill Transfer Station is a full-service facility accepting deliveries from private businesses, commercial collection route vehicles, commercial dropbox vehicles, rural dropbox stations, and self-hauling public.

3.2.1 City Provided Services

Shelton is the only incorporated city in Mason County and Mason County Garbage Co. Inc. operates its garbage collection system that serves approximately 3,500 residential and business customers within the City limits. Waste and recycling collection in Shelton is mandatory and, while recycling is optional, a recycling fee is included in the garbage rate whether or not the customer elects to recycle. Garbage is collected five days a week using automated collection trucks to service the routes. This system is efficient and significantly reduces work-related injuries associated with waste collection.

Mason County Garbage Co. Inc. provides waste collection carts in a variety of sizes to residents and businesses at no charge. Residents place their carts at the curb or alley on their designated collection day. Mason County Garbage Co. Inc. offers weekly and biweekly service with extra pickups for an additional fee. All refuse collected in the City is hauled to the County's Eells Hill Transfer Station for disposal.

3.2.2 Franchised Waste Collection Company

One private, franchised service provider, Mason County Garbage Company Co. Inc. provides residential refuse collection in all unincorporated parts of Mason County and to some City of Shelton businesses through agreements with the City. Mason County Garbage Co. Inc. also provides commercial garbage collection service to unincorporated county businesses and others requesting service as noted below.

National Forest Service and Olympic National Park

Mason County Garbage Co. Inc. collects refuse from Forest Service offices and Olympic National Park Staircase Park.

Squaxin Island and Skokomish Indian Tribes

The Squaxin Island and Skokomish Indian Tribes contract with Mason County Garbage Co. Inc. to provide garbage service on Tribal lands. Garbage collection is mandatory in Tribal housing for Squaxin and Skokomish residents. Skokomish residents outside of tribal housing voluntarily subscribe to Mason County Garbage Co. Inc. services or self-haul.

Washington State Patrol Academy

Refuse is collected by Mason County Garbage Co. Inc. and transported to the Eells Hill Transfer Station Facility for disposal.

For the unincorporated areas Mason County Garbage Co. Inc. collects five days a week using 15 trucks and drivers each day. Collection uses a combination of automated and manual collection for residential cans and carts and uses specialized trucks for commercial containers.

Waste collected by Mason County Garbage Co. Inc. is currently being disposed of in both Mason and Kitsap Counties. Waste collected in north Mason County is being disposed at the transfer station near Bremerton in Kitsap County while waste collected from areas elsewhere in the county is disposed of in the Eells Hill Transfer Station.

3.2.3 Self-haul

The waste generator is responsible for collecting and transporting refuse to one of the previously described drop box or central transfer stations. Besides the residents in the unincorporated areas of Mason County who do not use Mason County Garbage Co. Inc. services, self-haulers include:

National Forest Service & Olympic National Park

Forest Service and Park employees collect refuse within the National Forest or Park boundaries located within Mason County Garbage Co. Inc. service area and transport it to the Eells Hill Transfer Station for disposal. The amount of waste generated peaks during the summer when tourism increases.

Washington State Facilities

The State of Washington operates several facilities within Mason County. Besides the State Patrol Academy noted above, these include State Parks and the Washington Correction Center. Refuse from the Washington Correction Center and State parks is collected and self-hauled by State employees to the Eells Hill Transfer Station.

3.2.4 Construction and Demolition (C&D) Waste

Construction, Demolition, and Land Clearing Debris consists primarily of materials from building demolition or construction projects. Land clearing debris is currently recycled or disposed of at the Eells Hill Transfer Station and/or at private companies in the County.

3.2.5 Import/Export

Mason County does not operate a municipal solid waste landfill and therefore does not import any solid waste. All municipal solid waste generated in the county that is processed at the Eels Hill Transfer Station is trucked to Centralia, WA, where it is loaded on to a train and shipped to Klickitat County. The final disposal destination is the Roosevelt Regional Landfill, owned and operated by Republic Services, Inc.

3.3 Permits Required and Administration Methods

The operation of solid waste disposal methods, transfer stations, transfer of solid waste, and final solid waste disposal are governed by the regulations contained in Chapter 36.58 RCW. Mason County Public Works and the City of Shelton implement these regulations at the County- and City- owned facilities through departmental policies and procedures. The long-term contracts for collecting and hauling of solid waste from the County facilities or City of Shelton are governed by Chapter 81.77 RCW.

Mason County EHD is responsible for issuing permits and enforcing county and State regulations governing solid waste handling facilities. These regulations include, but are not limited to solid waste storage, collection, processing, and transfer and disposal requirements pursuant to Mason County Code Chapter 6.72, WAC 173-350, RCW 36.58, RCW 70.93, and RCW 70.95.

The Mason County Comprehensive Solid Waste Management Plan (CSWMP) is a "road map" to manage system-wide operations to meet State and County requirements and is also used to determine the need for additional or upgraded facilities. During its facility approval process, the Mason County EHD ensures any proposed new solid waste handling facility complies with the approved CSWMP prior to issuance of any permits.

3.4 Solid Waste Service Collection Rates

The County sets user fees at the Eells Hill Transfer Station and rural drop box stations. Solid waste operations are an enterprise funded service, and as such, these rates recover the full costs of operating the stations and disposal program. Additionally, rates are used to develop a replacement and repair recovery cost for future operations. No funds from taxes are used to support the solid waste program.

Mason County Garbage Co. Inc. has several service level options to meet the needs of their customers. In the County, options include a smaller can size, every-other week pick up, monthly and on-call services. In Shelton they offer weekly and every other week pickups. This allows those who generate less waste to have a lower cost option for collection services.

The Eells Hill Transfer Station is the only one of the four MCSWS facilities with scales to weigh incoming refuse loads. The weight of a load determines the disposal fee. At the Drop Box facilities, costs are based on volume which has been calculated based on a conversion from the per ton rate charged at the Transfer Station. The current (2017) cost for transfer and disposal of refuse is $93.45 per ton (without tax). The actual fee charged to customers using the 4 facilities includes the costs of operations, transfer, disposal, administration, waste reduction and recycling programs, HHW collection and disposal, and solid waste enforcement. A discussion of the solid waste rates, fees and charges follows.

3.4.1 Mason County Garbage Co. Inc. rates for City of Shelton

The City offers weekly and biweekly service with extra pickups for an additional fee. Table 3.1 details the garbage services and rates for the City of Shelton.

*Table 3.1 Monthly Sanitation Service Charge for Residential Service**

Gallons	Pickup	2014	March 2015	August 2015	January 2016
35	Every other week	$11.57	$12.40	$13.29	$14.25
65	Every other week	$16.47	$17.66	$18.93	$20.29
65	Weekly	$31.15	$33.39	$35.79	$38.37
95	Every other week	$24.38	$26.14	$28.02	$30.04
95	Weekly	$43.71	$46.86	$50.23	$53.85
300	Weekly	$95.84	$102.74	$110.14	$118.07

*customer count includes single family, duplex and multifamily units

Table 3.2 Monthly Service Charges for Commercial Pickup based on Container Volume 1X per week pickup

Gallons	2014	March 2015	August 2015	January 2016
65	$19.66	$21.08	$22.60	$24.23
95	$29.48	$31.60	$33.88	$36.32
300	$91.13	$97.69	$104.72	$112.26

Mason County Garbage Co. Inc. also operates a voluntary yard waste recycling service in Shelton. For $5.50 a month Shelton customers enjoy biweekly pick up of a 95-gallon container provided to the site. The program can accept nearly all common green waste (no food scraps). Extra pickups may be accommodated for $5.50 per container. Currently the program has 600 customers.

3.4.2 Mason County Garbage Co. Inc. rates for Unincorporated Mason County

Table 3.3 details the garbage service levels and rates for Mason County Garbage Co. Inc. service in unincorporated areas of the County. These rates include recycling pickup. Rates do not reflect the recycling commodity credit which is $ 0.61 effective November 1, 2016. For more information on the recycling commodity credit you can go to the UTC website www.utc.wa.gov.

Table 3.3 Current Mason County Garbage Service Level and Associated Rates

Number of Units or Type of Containers	Frequency of Service*	Garbage Service Rate/month	Recycle Service Rate/month	Garbage+Recycle Rate/month
1-32	W	$15.61	$9.16	$24.77
2-32	W	$23.33	$9.16	$32.49
3-32	W	$31.47	$9.16	$40.63
4-32	W	$40.36	$9.16	$49.52
5-32	W	$48.28	$9.16	$57.44
6-32	W	$56.07	$9.16	$65.23
1-45	W	$20.99	$9.16	$30.15
1-32	EOW	$8.94	$9.16	$18.10
2-32	EOW	$14.36	$9.16	$23.52
1-32	MO	$4.94	$9.16	$14.10
Mini	W	$13.16	$9.16	$22.32
Recycling	EOW		$9.81	
Automated Carts:				
35 Gallons	W	$17.92	$9.16	$27.08
48 Gallons	W	$22.75	$9.16	$31.91
64 Gallons	W	$27.85	$9.16	$37.01
96 Gallons	W	$34.62	$9.16	$43.78
35 Gallons	EOW	$10.67	$9.16	$19.83
48 Gallons	EOW	$14.12	$9.16	$23.28
64 Gallons	EOW	$16.87	$9.16	$26.03
96 Gallons	EOW	$21.08	$9.16	$30.24
35 Gallons	MO	$6.36	$9.16	$15.52
48 Gallons	MO	$7.97	$9.16	$17.13
64 Gallons	MO	$9.42	$9.16	$18.58
96 Gallons	MO	$11.59	$9.16	20.75

* "W" indicates one service per week; "EOW" means every other week; "MO" means once per month.

Table 3.4 Mason County Customers whose Garbage is Disposed in Kitsap County

Number of Units or Type of Containers	Frequency of Service*	Garbage Service Rate/month	Recycle Service Rate/month	Garbage+Recycle Rate/month
1-32	W	$14.50	$9.16	$23.66
2-32	W	$21.34	$9.16	$30.50
3-32	W	$28.36	$9.16	$37.52
4-32	W	$36.13	$9.16	$45.29
5-32	W	$43.14	$9.16	$52.30
6-32	W	$49.90	$9.16	$59.06
1-45	W	$19.03	$9.16	$28.19
1-32	EOW	$8.38	$9.16	$17.54
2-32	EOW	$13.37	$9.16	$22.53
1-32	MO	$4.68	$9.16	$13.84
Mini	W	$12.32	$9.16	$21.48
Recycling	EOW		$9.81	
Automated Carts:				
35 Gallons	W	$16.58	$9.16	$25.74
48 Gallons	W	$20.68	$9.16	$29.84
64 Gallons	W	$24.76	$9.16	$33.92
96 Gallons	W	$31.18	$9.16	$40.34
35 Gallons	EOW	$9.98	$9.16	$19.14
48 Gallons	EOW	$13.15	$9.16	$22.31
64 Gallons	EOW	$15.66	$9.16	$24.82
96 Gallons	EOW	$19.48	$9.16	$28.64
35 Gallons	MO	$6.04	$9.16	$15.20
48 Gallons	MO	$7.56	$9.16	$16.72
64 Gallons	MO	$8.90	$9.16	$18.06
96 Gallons	MO	$10.87	$9.16	$20.03

* "W" indicates one service per week; "EOW" means every other week; "MO" means once per month.

3.4.3 Self-Haul Rates

Mason County residents and businesses can haul solid waste directly to the Eels Hill Transfer Station or the rural drop box facilities to dispose of the waste themselves. Table 3.5 lists the various costs for disposal of solid waste which is based on amount and type of waste. The disposal of recyclable materials at these locations is provided at no charge. Eells Hill has a scale which allows cost to be based on weight for heavy loads. The rural drop box stations do not have scales so the cost is based on volume instead.

Table 3.5 Mason County Solid Waste Facilities 2017 Self-Haul Disposal Rates

Item	Shelton Transfer Station:	Hoodsport, Belfair, & Union:
Solid Waste (per ton at Shelton, cy drop box)	$93.45/ton	$19.16/cy
Minimum Fee	$15.16 (340 lbs)	$19.16 (>6 bags)
1 Can/Bag (32 gal)	$5.07	$5.06
2 Cans/Bags (32 gal)	$10.09	$10.11
3 Cans/Bags (32 gal)	$11.62	$11.63
4 Cans/Bags (32 gal)	$13.11	$13.15
5 Cans/Bags (32 gal)		$15.17
6 Cans/Bags (32 gal)		$16.68
1 55-gal drum	$93.45/ton	$10.11
2 55-gal drums		$13.65
3 55-gal drums		$16.68
Misc. Large Bulky Items	$5.07	$19.16
Appliance w/Refrigerant	$10.09	$25.29
Tire with Rim (1 only)	$5.07	$17.59
Each additional Tire with Rim		$5.06
Tire without Rim (1 only)	$3.02	$5.06
Each additional Tire without Rim		$3.03
Auto Battery	$1.54	$1.54
Recyclable Scrap Metal	$56.58/ton	$5.06/32 gal
Yard Waste		$16.16/cy
Construction Debris	$93.45/ton	
Separated Clean Yard Trimmings	$67.75/ton	

(Refuse Collection Tax is 3.6% of the untaxed rates)

3.5 Existing Operational Practices

3.5.1 Eells Hill Transfer Station Operations

Currently, Mason County is not openly accepting solid waste from outside of its county borders. However this is not actively monitored at the four waste handling facilities and non-resident, self-haul customers could be using the facilities, although this is not believed to be a significant source of refuse brought to the facilities.

In 1993, a competitive bidding process for final disposal services was conducted by Thurston, Lewis and Grays Harbor Counties with the provision that near-by counties could select to be included in the bidding process. Mason County took advantage of that process and Republic Services Inc. was selected to own, provide, and operate facilities to transport and dispose of waste for the Counties. Under the contract, solid waste is transported from the Eells Hill Transfer Station in transfer trailers by LeMay Inc., a subcontractor for Republic Services Inc., to Lewis County. It is then transferred to rail cars and taken to the Roosevelt Regional Landfill (owned and operated by Republic Services Inc.) in Klickitat County, Washington.

At contract award, Mason County negotiated a 5-year contract with Republic Services Inc. including options for automatic renewal up to 20 years. In 1994 the contract was modified to include the use of rail transportation. An addendum to the contract in 1997 extended the life of the contract through 2012. In 2012 the County executed a new contract extension to continue the operation until 2020. In 2015, 30,063 tons of solid waste was transferred for disposal by Republic Services.

Users of the Eells Hill Transfer Station have the ability to divert wastes from disposal by separating clean yard trimmings, scrap metal and household items such as cans, paper, cardboard, plastic and glass bottles for recycling. The Eells Hill Transfer Station also accepts used clothing and limited HHW. These programs are discussed in detail in Chapters 4 and 5 of this Plan.

3.5.2 Drop Box Station Operations

The operating schedule for drop box stations is currently as follows:

- Belfair Drop Box Tuesday – Saturday 9am – 4pm
- Union Drop Box Sunday, Monday 9am – 4pm
- Hoodsport Drop Box Friday, Saturday 9am – 4pm

Drop box stations are closed New Year's Day, Martin Luther King's Birthday, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving and the day after, and Christmas.

Drop box stations are only available for residential and small business self-haul loads and do not accept large commercial loads of refuse or construction debris. Refuse is dumped into 40-yard lidded containers which minimize escaping airborne litter and entry by scavengers. Solid Waste from the rural drop box stations is hauled by County Solid Waste employees, or by contract with Mason County Garbage Co. Inc. to the Eells Hill Transfer Station.

3.6 Facilities Siting Review

RCW 70.95 states that each County or City siting a solid waste disposal facility shall review each potential site for conformance with identified standards. No new municipal solid waste disposal facility in the county is anticipated over the next twenty years but new or replacement of existing solid waste handling facilities may occur in the next twenty years. A new or replacement solid waste handling facility should be reviewed according to RCW 70.95.

3.7 Needs and Opportunities

- Flow control needs further evaluation to keep waste currently going to other counties in the Mason County system.
- Upgrades and improvements to the Eells Hill Transfer Station and the Drop Box Stations detailed in the Parametrix Inc. report (Appendix A) should be completed to assure user safety and maximize efficiencies of the existing facilities.
- Prior to the expiration of the hauling contract with Republic Services, the County should evaluate the potential benefits of having a private contractor take over operations of facilities as well as providing hauling services.

CHAPTER 4

WASTE REDUCTION, REUSE AND RECYCLING

This chapter provides more details for activities supporting Plan Objectives and Activities found in Chapter 2. Each section will describe the existing conditions and discuss possible needs and opportunities for improvement. The chapter is divided into Waste Reduction, Recycling, Composting, and Public Education and Outreach sections.

The first part of this section focuses on reducing the amount of waste being generated, while the sections on recycling and composting discuss methods that reduce the amount of solid waste being disposed. Collectively, these approaches (waste reduction, recycling, and composting) are known as "waste diversion" and play a vital role in solid waste management.

The State waste diversion requirements are based in the "Waste 2 Resources" Act, which are reflected in various sections of the Revised Code of Washington (RCW) and Washington Administrative Codes (WAC). RCW Chapter 70.95 requires that county and city governments assume the primary responsibility for solid waste management and implement effective waste reduction and recycling strategies.

4.1 Waste Reduction

Activities and practices that reduce the amount of wastes that are created are classified as "waste reduction." Waste reduction differs from the other two waste diversion techniques (recycling and composting) because the other methods deal with wastes after the wastes have been generated.

Waste reduction is the highest priority for solid waste management and is preferred over recycling and composting because the social, environmental and economic costs are typically lower for waste reduction. All three methods avoid the cost of disposing the diverted materials as garbage, but recycling and composting frequently require significant additional expenses for collecting and processing the materials.

4.1.1 Existing Practices

Three waste reduction activities are currently conducted in Mason County.

Web Site Links: Mason County and the City of Shelton maintain web sites that provide links or references to government and non-government waste reduction services. Mason County links can be found on both the Utilities/Waste Management and Public Health web pages. Website references include 2good2toss, Habitat for Humanity, Offer up, Let Go, and Craig's List. The Department of Ecology "Waste 2 Resources Program" provides options to help an individual figure out what he/she can do to reduce solid waste and safely manage what remains. If not managed wisely, solid wastes can contribute to air and water pollution, and pose a threat to human health. On-line references are preferred because they can be more frequently changed as services are added or deleted.

Waste Audits: Free technical assistance is available to businesses that are looking to reduce the amount of waste they generate through their daily operations. The potential exists to find a waste stream component

that can be easily identified and handled in an alternative manner, reducing waste, making a reusable material available to an end user, or connecting the business with a recycling outlet for the given material. This assistance is provided by Mason County Garbage Co. Inc. and is available to any requesting entity.

Environmentally Preferably Purchasing: Environmentally Preferable Purchasing (EPP) involves purchasing products or services that have reduced negative effects on human health and the environment when compared with competing products or services that serve the same purpose. They include products that have recycled content, reduce waste, use less energy, are less toxic, and are more durable. Both Mason County and the City of Shelton comply with the State-mandated EPP requirements.

4.1.2 Needs and Opportunities

A significant need in this area is the ability to measure the results of waste reduction activities. Residential and commercial efforts in waste reduction cover a broad range and are not well documented. Waste reduction could be shown to be handling significantly more waste if the residential and commercial efforts could be measured more completely. Therefore, a method to quantify waste reduction is needed.

4.2 Recycling

The basic Mason County recycling objectives derived from the Solid Waste Management program goals are to:

- Support private efforts in waste recycling in Mason County.
- Achieve an increase in waste recycling throughout Mason County.
- Provide recycling opportunities at drop box/transfer station facilities

The County and City of Shelton websites should be checked for up-to-date recycling information.

4.2.1 Existing Practices

City of Shelton

The City of Shelton has operated a residential single-family curbside recycling program within the City limits since September 1994. The City expanded the residential program to include multifamily facilities in 2009. The cost of recycling is based on the size of the customer's waste cart and is incorporated into their overall solid waste fee, whether they use the service or not. The curbside program uses two lidded carts for collection; a green cart for mixed paper, newspaper, magazines, and cardboard; and a blue cart for glass bottles, jars, plastic bottles, aluminum and steel cans, plastic milk jugs, etc.

In cooperation with the Washington State Department of Ecology, the City of Shelton purchased several reusable event recycling containers in 2010 and established a free event (sporting events, public events, etc.) recycling program. The City offers the containers, free of charge, to event organizers and, in limited circumstances, directly recycles events. All special event permits issued by the City of Shelton include information about the program as well as contact information encouraging organizers to take advantage of the program.

Table 4.1 City of Shelton recycling collections (tons)

Material	2009	2010	2011	2012	2013	2014	2015
Containers*	205	200	186	272	279	304	319
Mixed Waste Paper	389	356	330	370	322	333	350
TOTALS	**594**	**556**	**516**	**642**	**601**	**637**	**669**

* Containers = glass, plastic, aluminum, etc.

Mason County

The County began its self-haul recycling program in 1993. Over the years the number of recycling drop off sites has fluctuated, but has now stabilized at four which includes the three rural drop box stations and the main (Eells Hills) transfer station. Each site has at least five "blue boxes" (compartmentalized drop boxes used to facilitate source separated collection) that collect corrugated cardboard, glass bottles and jars, plastic bottles and jugs, aluminum and steel cans, and mixed waste paper. Recycling of metal and white goods is also accepted at the Belfair Drop Box and Eells Hill Transfer Station.

The collection and transportation of recyclable materials from single-family and multifamily residences is regulated under RCW 81.77 and RCW 36.58. Under these statutes, counties have the authority to directly regulate the collection of source-separated recyclable materials. In an effort to expand recycling opportunities for all county residents in unincorporated areas, Mason County Utilities and Waste management, Mason County Garbage Co. Inc., and the SWAC membership sought an ordinance to provide curbside recycling for all residential solid waste customers of Mason County Garbage Co. Inc. The Mason County Board of Commissioners passed County Ordinance 147-08 in December of 2008 which was revised in 2009 by Ordinance 68-09. Under this ordinance, all subscribers pay for garbage and recycling collection, whether both services are utilized or not. Curbside service began in late 2009. Customers may also choose recycling only services.

Table 4.2 shows the materials collected for the blue box program since 2009. Table 4.3 shows the materials collected from residential curbside recycling since 2009.

Table 4.2 Mason County Blue Box Collections (Tons)

Material	2009	2010	2011	2012	2013	2014	2015
ONP*	192.56	89.21	94.81	103.63	88.18	81.56	80.09
OCC*	301.80	156.50	159.37	145.16	143.94	148.44	154.14
MWP*	284.97	198.96	176.54	163.99	179.78	199.25	200.70
Plastics	40.32	59.20	46.70	26.95	59.21	68.78	59.10
Tin	17.56	24.47	22.06	22.89	26.78	25.99	28.06
Glass	300.00	204.00	204.00	204.00	204.00	204.72	264.00
Aluminum	22.14	13.71	9.08	9.6	9.98	9.6	8.99
TOTALS	**1,159.35**	**746.05**	**712.56**	**676.22**	**711.87**	**738.34**	**795.08**

* ONP = Old News Print, OCC = Corrugated Cardboard, MWP = Mixed Waste Paper

Table 4.3 Mason County Residential Curbside Recycling

Material	2009	2010	2011	2012	2013	2014	2015
ONP*	128.12	311.74	316.04	326.82	316.02	276.58	273.19
OCC*	311.06	878.87	891.00	921.39	890.93	948.26	936.65
MWP*	113.97	341.53	346.24	358.05	346.22	491.32	485.30
Plastics	80.77	136.04	137.92	142.62	137.91	138.59	136.60
Tin	25.39	41.93	42.51	43.96	42.51	59.27	58.54
Aluminum	14.27	15.75	15.97	16.51	15.96	22.32	22.05
TOTALS	**674.13**	**1725.86**	**1749.69**	**1809.37**	**1749.56**	**1936.03**	**1912.33**

4.2.2 Needs and Opportunities

City of Shelton

The City's curbside recycling program has enjoyed an increase in participation primarily beginning with the implementation of a dual stream recycling system in 2007 and changing to every-other-week trash pickup in 2009. With an increased local interest in recycling, the City of Shelton could see additional reductions in landfill tonnages.

Mason County

The collection and transportation of recyclable materials from single-family and multifamily residences is regulated under Chapter 81.77 RCW and Chapter 36.58 RCW. Under these statutes, counties have the authority to directly regulate the collection of source-separated recyclable materials.

County residents who do not use the services of Mason County Garbage may instead self-haul their solid waste. This option presents the most severe challenge to recycling rates because there is no incentive for source separation. Unless self-haul County residents become more aware of the economics of volume-reducing their solid waste, i.e. separating recyclables from trash, recycle amounts won't change appreciably.

4.3 Composting

Composting is a form of recycling, transforming waste materials into usable or marketable materials for use other than landfill disposal. Composting can be an effective tool in managing certain waste materials, because it offers a means to generate a useful product while diverting significant amounts of organic materials away from landfills.

Previous to the development of the CSWMP, there have been no solid waste planning goals for Mason County in the area of composting and yard waste diversion. One of the initiatives of the "Moving Washington Beyond Waste and Toxics Plan" is to increase recycling of organic materials. Burning of organic materials is also common practice; however, with bans on burning and statewide changes in organics handling, composting becomes increasingly attractive for organics. The County and City of Shelton websites should be consulted for up-to-date information on composting.

4.3.1 Existing Practices

City of Shelton

The City of Shelton Public Works Department collects Christmas trees at curbside during the first week of January at no charge from City utility customers. The trees are chipped and used at City facilities.

In 2009 the City initiated an optional residential yard waste composting service. The service provides customers with a brown 95-gallon rolling cart that is picked up bi-weekly during recycling weeks. The materials are brought to a local wood recycling facility that composts the materials. As of September 2016, the City has over 500 yard waste customers.

Mason County

The County also accepts Christmas trees from residents at no charge during the first couple of weeks in January and accepts yard waste year round at its Eells Hill Transfer Station at a reduced rate from its regular solid waste rate schedule.

4.3.2 Needs and Opportunities

City of Shelton

Although the City has implemented a residential yard waste collection service, the inability to allow for food scraps to be included in the cart is seen as the largest impediment to expanding the service. If a viable way to include food waste in the program is identified, it is anticipated that use of the service would expand greatly.

Mason County

The rural nature of the county lends itself to household onsite recycling. Yard debris does arrive at the transfer station for recycling—both from landscape businesses and individual residents. Currently, if yard wastes reach the drop box/transfer station facility they are separated out from the MSW stream, in the same way that scrap metal and tires are diverted, and periodically sent to a wood recycler. There are wood recyclers available within 10 miles of both solid waste facilities in Shelton and Belfair. Mason County could provide outreach to utilize other wood recyclers in the area to increase diversion of wood waste.

4.4 Public Education and Outreach

To achieve the goals of the Solid Waste Management Program in the area of waste diversion, it will be necessary to explore and implement partnerships with other government agencies and private organizations to implement outreach and education programs. The focal points of these programs should be to:

- Educate and inform the public regarding waste reduction techniques.
- Educate and inform the public regarding existing and planned methods for recycling.
- Develop a sense of environmental responsibility in the public.
- Inform the public regarding community progress and to gain feedback on agency progress or needs.

4.4.1 Existing Practices

City of Shelton

The City of Shelton utilizes many different methods of outreach. They include utility billing mailers, provision of multilingual (English and Spanish) outreach materials available on the City's website and at the Utility Billing counter, and regular appearances on the City's weekly radio show (Focus on Shelton) to discuss recycling. Utility drivers also carry correction tags and recycle guides in their trucks and monitor collected materials as they are dumped. If they see non-program materials in a container they will fill out a correction tag and, oftentimes, leave a recycle guide as well informing the customer of allowed and non-allowed materials. If problems persist the drivers forward the customers' address to the recycling coordinator who will make a personal visit to the site and discuss correct recycling practices with the resident.

Mason County

Mason County's outreach efforts primarily rely on local newspapers (primarily the Shelton-Mason County Journal) and radio stations, both in paid advertising and press releases and public service announcements. Each October Mason County Garbage Co. Inc. sends recycling information in all customer statements coupled with a recycling calendar in January. In addition, all new customers are mailed the same information when they sign up for service.

4.4.2 Needs and Opportunities

City of Shelton

The City of Shelton would benefit from a larger presence in schools and at public events to bring attention to local recycling options and services available.

Mason County

There have not been any solid waste surveys conducted since the 2005 Mason County Fair which showed that the majority of Mason County residents were unaware of the various services available to them through the recycling and solid waste programs. Outside of the periodic information provided by Mason County Garbage Co. Inc. there have been no programs since that time to change that reality. A Solid Waste Program Manager, who could be present at a few annual events, would be able to reach a broader audience in communities outside of the greater Shelton area—Allyn, Belfair, and Hoodsport in particular—by participating in the various local community events (i.e. Allyn Days, Grapeview Day, Tahuya Day, and Celebrate Hoodsport). A larger presence in schools is also needed with regard to recycling technical assistance and education. The County also needs to address the communication needs of the increasing bilingual population, and produce outreach materials in English and Spanish.

College Interns—City of Shelton and Mason County

Given the proximity to four colleges—Olympic College, The Evergreen State College, South Puget Sound Community College, and Saint Martin's University —Mason County could employ one to two student interns to work on special projects throughout the year.

Advantages: Unpaid interns may be available or those under a work-study program, creating little or no expense for the County. Interns could focus on special projects that staff currently has not had the time to work on.

Disadvantages: Unpaid interns are difficult to attract, especially those based in Olympia. Staff has been unsuccessful over the last two years at attracting any applicants. Time spent to manage interns, if recruited, is also a consideration.

CHAPTER 5

MODERATE RISK WASTE MANAGEMENT

5.1 Overview

Moderate-risk waste means (a) any household wastes which are generated from the disposal of substances identified by Ecology as hazardous household substances, and (b) any waste that exhibits any of the properties of hazardous waste but is exempt from regulation under this chapter solely because the waste is generated in quantities below the threshold for regulation.

5.1.1 Household Hazardous Waste (HHW)

While most hazardous wastes that are ignitable, reactive, corrosive or toxic are regulated in the United States under Subtitle C of the Resource Conservation and Recovery Act (RCRA), Congress developed an exclusion for household waste. Under this exclusion, found in Title 40 of the Code of Federal Regulations Part 261.4(b)(1), wastes generated by normal household activities (e.g., routine house and yard maintenance) are excluded from the definition of hazardous waste. This exemption also applies to Household hazardous waste (HHW) collected during a HHW collection program. Specifically, wastes covered by the HHW exclusion must satisfy two criteria:

1. The waste must be generated by individuals on the premise of a temporary or permanent residence, and
2. The waste stream must be composed primarily of materials found in wastes generated by consumers in their homes.

Household waste, including HHW, is subject to regulation under EPA Subtitle D of RCRA governing the disposal of any solid waste described by "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR Part 257). These regulations are general environmental performance standards that are implemented in Washington by RCW Chapters 36.58 (Solid Waste Disposal) and 70.95 (Solid Waste Management – Reduction and Recycling).

Table 5.1: Hazardous Household Material Groups

Group Name	Examples
Repair and Remodeling	Adhesives, oil-based paint, thinner, epoxy, paint stripper, latex paint*
Cleaning Agents	Oven cleaners, deck cleaners, degreasers, toilet cleaners
Pesticides & Fertilizers	Wood preservatives, mole killer, herbicides, pesticides
Auto, Boat & Equipment	Batteries, paint, gasoline, oil, antifreeze, solvents
Hobby and Recreation	Photo and pool chemicals, glaze, paint, white gas
Miscellaneous*	Ammunition, fireworks, asbestos, alkaline batteries, medicines

* Not accepted at Eells Hill Transfer Station

5.1.2 Commercial Hazardous Waste

The second category of moderate risk wastes are those produced by small quantity generators (SQG). Per WAC 173-303, these are non-residential wastes produced at a rate of less than 220 pounds per month or per batch (or 2.2 pounds per month or per batch of extremely hazardous waste) and accumulate less than 2,200 pounds of hazardous waste onsite (or 22 pounds of extremely hazardous waste). Ecology has 20 hazardous waste generators in Mason County in their database. These businesses pay a Hazardous Waste Generation Fee to Ecology.

When household wastes are mixed with hazardous wastes from small quantity generators, this resulting mixture is subject to the small quantity generator rules in 40 CFR Part 261.5 (and subsequently WAC 173-303). For this reason, the Mason County HHW collection programs limit the participation in the HHW program to households to avoid the possibility of receiving regulated hazardous wastes from commercial or industrial sources and triggering all or some of the Subtitle C controls on this waste.

5.2 Household and Small Business Collection

5.2.1 Existing Practices

The County operates the HHW Facility at the Eells Hill Transfer Station to collect moderate risk waste from households. This facility collects moderate risk wastes free of charge from county residents every Friday and Saturday. There were 564 drop-off visits in 2014, 474 in 2015, and 394 in 2016. The County does not accept wastes from business or small quantity generators. Kitsap County will also accept HHW from Mason County residences. This is for residents in the north and east part of the County. In 2015 there were 918 visits by Mason County residents to the Kitsap County HHW Facility in Port Orchard.

The physical layout of the Eells Hill Facility currently consists of an open-aired building over a concrete surface. Materials accepted at the facility include oil-based paints and stains, automotive products, fluorescent tubes and bulbs, flammable liquids like gasoline and solvents, household cleaners, aerosols, pesticides and herbicides, pool and spa supplies, antifreeze, small propane bottles, lithium and NiCad batteries, and used motor oil. The County currently contracts with Stericycle to dispose of these collected wastes.

The County also has used motor oil and antifreeze collection containers at our Belfair, Union, and Hoodsport drop-off facilities. Auto and marine batteries are also accepted at all four facilities for $1.50 each. Table 5.2 summarizes quantities of moderate risk waste collected at the Household Hazardous Waste Facility from 2013 through 2015.

5.2.2 Needs and Opportunities

As noted in Chapter 3, all the County solid waste handling facilities need varying amounts of repair or upgrades as identified in the Parametrix “Solid Waste System Capital Investment Needs” report (Parametrix 553-1682-043, October 5, 2016; see Appendix A). To meet the six year planning window

required by Ecology (Guidelines for Development of Local Comprehensive Solid Waste Management Plans and Plan Revisions; Ecology Publication 10-07-005, February, 2010) and allow for an easy budget planning reference, the "Immediate" (1 year) and "Mid-term" (6 year) deficiency items relative to HHW at Eells Hill and the drop box stations have been extracted from the report and are listed below:

Eells Hill Transfer Station

1. Repair or replace and freeze protect the emergency eyewash and shower units (immediate)
2. Install a new sump pump and wastewater holding tank (immediate)
3. Install a loading dock rain curtain at the waste oil handling bay (immediate)
4. Assess the HHW facility for relevant Code compliance and functional performance (immediate)
5. Assess fire hazard risks and on-site response capabilities (immediate)
6. Rehabilitate or replace the HHW facility to meet relevant Codes and performance requirements based on assessment results (Mid-term)
7. Upgrade on-site fire response capabilities (Mid-term)
8. Prepare a stormwater management assessment and plan (Mid-term)
9. Implement stormwater management improvements (Mid-term)

Drop Box Stations

1. Install and/or repair perimeter fencing (immediate)
2. Install secondary containment for MRW sheds (immediate)
3. Install or repair damaged asphalt pavement around the MRW collection areas (immediate)

Evaluate eliminating the option of disposing HHW in Kitsap County to reduce the operational cost to the MCSWS. The evaluation should include a method to collect, transport and deliver HHW to the Eells Hill Transfer Station for disposal with other HHW collected materials.

Another opportunity would be to provide HHW service to small businesses in addition to HHW.

5.3 Public Education and Technical Assistance

5.3.1 Existing Practices

Mason County website, www.co.mason.wa.us/utilities_waste/solid_waste/hazardous_waste.php, provides the public with general information about HHW, disposal programs, and product alternatives. The County also keeps flyers available for customers at Eells Hill or the rural drop box stations. The County in partnership with Mason County Garbage Company, Inc. also sends out annually HHW flyers with information on how to dispose of HHW to Mason County Garbage customers through their annual customer calendar mailing and HHW flyers are sent out to all new customers.

5.3.2 Needs and Opportunities

Mason County could provide HHW education and technical assistance through other venues besides what is already provided.

Table 5.2: Moderate Risk Quantities Collected through the HHW Facility

Waste Type	2013 HHW		2014 HHW		2015 HHW	
	DM	lbs.	DM	lbs.	DM	lbs.
Antifreeze			R	2,881	R	4,514
Oil non-contaminated			R	1,043	R	44,060
Aerosols	H	200	H	392	H	900
Acids	H	250				
Batteries (Auto Lead Acid)			R	1,520	R	1,379
Batteries (Household Dry Cell)			H	8.8		
Flammable Liquids	E	200	E	2,598	E	1,600
Flammable Liquid – Poison	E	1,750	E	1,368	E	5,000
Flammable Gas – Poison	E	1,600				
Paint – Latex			H	4,230		
Paint – Oil Based	H	500	H	9,370	H	10,250
Paint Related Materials	H	3200				
Pesticide/ Poison Liquid			H	990	H	750
Pesticide/Poison Solids	H	750				
PCB Containing Light Ballasts	R	2100				
Non-PCB Containing Light Ballasts					H	1
Fire Extinguishers			R	27	R	27
Mercury – Fluorescent Tubes and CFL's			H	6,554	H	17,352
Non – Regulated Liquids (Soaps, Cleaners)			H	1,409		

Notes:

1) Differences in what was reported from 2013 to 2014 due to change in vendor.
2) Latex paint is no longer accepted at Eells Hill. Instead customers are instructed to dry the paint and put it in with normal solid waste.
3) Pharmaceuticals are accepted at the Sheriff's office in Shelton and Belfair.
4) Energy recovery materials go to the Covanta Facility in Marion County, Oregon

DM = Disposal Method Key: H – Hazardous Waste Facility, R – Recycled, E – Energy Recovery

5.4 Household Hazardous Waste Training, Health, and Safety

Existing Practices

WAC 173-303-330 spells out personnel training required for all employees working with hazardous waste. To meet this in Mason County all employees working in hazardous waste have a minimum of 40 hours training in hazardous waste operations and emergency response. Furthermore, employees attend an annual eight-hour refresher course. The County waste disposal vendor is required to use employees with additional training for packaging and shipping in accordance with US Department of Transportation standards that remove and dispose of HHW from Mason County Facilities.

5.5 Hazardous Waste Generators

Existing Practices

Counties are required to include an inventory provided by Ecology of generators of dangerous waste generators and facilities, remedial action sites, list of hazardous waste transporters which service businesses within the jurisdiction, and zones designated for hazardous waste treatments, storage, and disposal (TSD).

Hazardous waste generators are businesses in the County that have an EPA/State identification number issued under Chapter 173-303 WAC. Ecology records identify 20businesses and institutions in Mason County are registered as hazardous waste generators as of January 2017. These include 5 governmental agency properties, 4 lumber sites, and the rest commercial businesses. Database information can be found at www.ecy.wa.gov/fs/ .

5.6 Remedial Action Sites

Existing Practices

Ecology conducts Site Hazard Assessments for suspected contaminated properties and includes those confirmed as a potential threat on its Hazardous Sites List. This list also ranks each property in relation to the level of threat present at other sites in the state. A rank of one represents the highest level of concern and a rank of five the lowest. There are two sites within Mason County on Ecology's website identified on the remedial action program list. Database information can be found at www.ecy.wa.gov/fs/.

5.7 Hazardous Waste Transporters and Facilities

Existing Practices

There are no Mason County-based companies registered with Ecology that transport or recycle, treat, store, and/or dispose of hazardous wastes. Mason County contracts with vendors outside the county to transport and dispose of hazardous wastes.

CHAPTER 6

CHARACTERIZATION OF THE WASTE STREAM

6.1 Municipal Solid Waste

WAC 173-350-100 defines municipal solid waste (MSW) as a subset of solid waste that includes unsegregated garbage, refuse, and similar solid waste material discarded from residential, commercial, institutional, and industrial sources and community activities. The term also includes residual material after the separation of recyclables. MSW does not include:

- Dangerous wastes other than wastes excluded from the requirements of chapter 173-303 WAC, Dangerous waste regulations and in WAC 173-303-071 such as household hazardous wastes;
- Any solid waste, including contaminated soil and debris, resulting from response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C 9601), chapter 70.105D RCW, Hazardous waste cleanup – Model Toxics Control Act, chapter 173-340 WAC, the Model Toxics Control Act cleanup regulation or a remedial action taken under those rules; or
- Mixed or segregated recyclable material that has been source-separated from garbage, refuse and similar solid waste.

6.1.1 MSW Composition

EPA estimated in its *Advancing Sustainable Materials Management: 2014 Fact Sheet* that residential waste comprised 55 to 65 percent of total MSW generated across the country. Wastes from commercial businesses and institutions, such as schools and hospitals, made up the remaining 35 to 45 percent of MSW.

Organic materials make up nearly 55 percent of MSW quantities by weight. These materials include paper and paperboard products, yard trimmings, and food scraps. Plastics are the next largest single waste product, followed by rubber, leather, and textiles, metals, wood, glass, and other.

Table 6.1 Estimate of Total Municipal Solid Waste Stream, Percent of Total Tons

Type of Municipal Solid Waste (MSW)	Percent
Paper and paperboard products	26.6%
Food Scraps	14.9%
Yard Trimmings	13.3%
Plastics	12.9%
Rubber, leather and textiles	9.5%
Metals	9.0%
Wood	6.2%
Glass	4.4%
Other	3.2%

A study among Washington counties prepared by Ecology in 2016 found similar results as shown in Table 6.2.

Table 6.2 Overall statewide disposed waste stream composition by material class

Type of MSW	Percent
Organics	28.5%
Wood Debris	12.3%
Construction Materials	12.2%
Plastic	10.2%
Paper Products	7.7%
Consumer Products	7.3%
Metal	5.8%
Paper Packaging	5.7%
Residues	5.5%
Glass	2.3%
Hazardous/Special Wastes	1.1%

6.1.2 MSW Per Capita Generation Nationwide

The 2014 EPA publication *Advancing Sustainable Materials Management: 2014 Fact Sheet* provides nationwide estimates for MSW generation. The average US per capita generation of MSW in 2014 was 4.4 pounds per day, or 0.80 tons per year. Recycling and composting removed 1.52 pounds per capita per day, or 0.28 tons per year. Combustion with energy recovery removes 0.48 pounds per day, or 0.08 tons per year. The remaining 2.40 pounds per day, or 0.44 tons per year, goes into landfills. Nationwide, 52.6% of the waste stream ended up in landfills. Of the remainder, recycling and composting removed 34.6% and combustion with energy recovery removed 12.8%.

6.1.3 MSW Generation in Mason County

Mason County maintains records of total tonnage of MSW brought to the Eells Hill Transfer Station for export and recycling. Mason County Garbage Co. Inc. records tonnage that they dispose of in Kitsap County at the Olympic View Transfer Station and also records their curbside recycling tonnage. The City of Shelton records their recycling tonnage through their curbside program. The table below accounts for the total county MSW for the years 2010 through 2015 from these three sources and uses Washington Office of Financial Management (OFM) populations to determine per capita tonnage.

Table 6.3 reports both total and per capita tonnage generated in Mason County. The average per capita generation rates of waste going to land disposal in the County is 0.531 tons. The recycling rate averages 8.78% of waste and is far below the nationwide estimate. The approximately 0.6 tons generated per capita is 25% lower than the nationwide average.

Table 6.3 MSW Total and Per Capita Tonnage for Mason County as reported, 2010-2015

Total Tonnage	2010	2011	2012	2013	2014	2015
Exported for land disposal	33,474	31,484	31,447	32,340	33,558	33,779
Collected through recycling	3,028	2,978	3,128	3,062	3,311	3,376
Total Tons generated	36,502	34,462	34,575	35,402	36,869	37,155
Per Capita Annual Tonnage	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
OFM Population for Mason County	60,699	61,100	61,450	61,800	62,000	62,200
Exported for land disposal	0.551	0.515	0.512	0.523	0.541	0.543
Collected through recycling	0.050	0.049	0.051	0.050	0.053	0.054
Total tons generated per capita	0.601	0.564	0.563	0.573	0.595	0.597

Table 6.4 compares MSW generation rates between the City of Shelton and unincorporated areas in Mason County. This table assumes everything coming into Eells Hill not from City of Shelton trucks is from unincorporated areas. So Shelton residents and businesses that take loads directly to Eels Hill are counted as coming from unincorporated areas, skewing the number higher for unincorporated waste. Taking that into consideration waste generation between the Shelton and the unincorporated County is pretty close to the same on a per capita basis.

Table 6.4 City of Shelton and Unincorporated Area Waste Generation Comparison, 2010 - 2015

		Total Annual Tons			Per Capita Tons
Area	**Population**	**Generated**	**Recycled**	**Disposed**	**Generated**
Mason County (Total) – 2010	60,699	36,502	3,028	33,474	0.60
Unincorporated – 2010	**50,865**	**31,370**	**2,472**	**28,898**	**0.62**
City of Shelton – 2010	9,834	5,132	556	4,576	0.52
Mason County (Total) – 2011	61,100	34,462	2,978	31,484	0.56
Unincorporated – 2011	**51,245**	**29,333**	**2,462**	**26,871**	**0.57**
City of Shelton – 2011	9,855	5,129	516	4,613	0.52
Mason County (Total) – 2012	61,450	34,575	3,128	31,447	0.56
Unincorporated – 2012	**51,580**	**29,275**	**2,486**	**26,789**	**0.57**
City of Shelton – 2012	9,870	5,300	642	4,658	0.54
Mason County (Total) – 2013	61,800	35,402	3,062	32,340	0.57
Unincorporated – 2013	**51,825**	**30,036**	**2,461**	**27,575**	**0.58**
City of Shelton – 2013	9,975	5,366	601	4,765	0.54
Mason County (Total) – 2014	62,000	36,869	3,311	33,558	0.59
Unincorporated – 2014	**52,005**	**31,464**	**2,674**	**28,790**	**0.61**
City of Shelton – 2014	9,995	5,405	637	4,768	0.54
Mason County (Total) – 2015	62,200	37,155	3,376	33,779	0.59
Unincorporated – 2015	**52,130**	**31,673**	**2,707**	**28,966**	**0.61**
City of Shelton – 2015	10,070	5,482	669	4,813	0.54

6.1.4 Countywide Trends

Table 6.5 estimates the future total tonnage of the waste stream using the OFM Growth Management projections assuming Mason County continues to generate 0.6 tons of solid waste per person. In terms of population and waste stream tonnage, Mason County has been following the mid-range growth rate.

Table 6.5 Low, Intermediate, and High Projections for Total Waste Stream, 2020 to 2040

Year	2020	2025	2030	2035	2040
High Range Population	76,239	82,618	89,093	95,472	101,583
High-Range Tonnage	**45,743**	**49,571**	**53,456**	**57,283**	**60,950**
Mid-Range Population	67,545	71,929	76,401	80,784	84,919
Mid-Range Tonnage	**40,527**	**43,157**	**45,841**	**48,470**	**50,951**
Low Range Population	58,741	61,075	63,489	65,821	67,925
Low Range Tonnage	**35,245**	**36,645**	**38,093**	**39,493**	**40,755**

6.2 Special Wastes

Special wastes include those wastes that fall outside the category of MSW because they require separate handling and/or disposal. Special wastes of particular interest to Mason County include: Animal Carcasses, Asbestos, Biomedical Waste, Biosolids, Construction and Demolition (C&D) Wastes, Disaster Debris, Electronic Waste, Tires, and Wood Waste.

6.2.1 Animal Carcasses

The rural nature of Mason County and the presence of salmon-bearing waterways create the need for planning for disposal of animal carcasses to protect the public health and the State's surface and ground waters. Existing disposal methods currently include burial, cremation through, or at, local veterinary clinics, use of a rendering service, composting, landfill disposal, or another method approved by the local Health Department in accordance with general sanitation practices as stated in WAC 246-203-121.

Existing Practices

- Small animals (including household pets) may be buried on private property as long as distance to property lines, depth of burial, total weight, distance to wells, and location of flood plains /high ground water levels are considered. The local Health Department should be contacted for specific requirements. Small animals may also be cremated or accepted at the transfer stations as long as they are triple bagged.
- Livestock that have died because of disease or an unknown cause must be disposed of in accordance with WAC 16-25 "Disposal of Dead Livestock."
- Wildlife found dead on personal property is the responsibility of the property owner. Disposal options are the same as noted in 6.2.1.1. Dead wildlife along roads and highways are the responsibility of the owning jurisdiction, i.e., Washington State Department of Transportation for state highways, Mason County Public Works for county roads, and City of Shelton for city streets. The location of the dead wildlife should be reported to the owning jurisdiction. Dead wildlife may also be harvested for food – contact the Washington Department of Fish and Wildlife for specific requirements.

6.2.2 Asbestos

Asbestos is a fibrous mineral that was considered to be useful for many different applications, especially in fireproofing and thermal insulation, until it was discovered that the fibers cause lung cancer and other respiratory ailments. The fibers are "friable", or crumble easily into very small particles, that become airborne and lodge in the lungs after being inhaled.

Existing Practices

Asbestos-containing waste must be disposed within 10 days of removal at a disposal site authorized to accept asbestos waste. For disposal the waste owner must follow specific waste tracking guidelines established by the Olympic Region Clean Air Authority (ORCAA). These guidelines may be found at www.orcaa.org/services . If a building or residence is used for commercial purposes and a contractor, other workers (besides the owner), or volunteers are used for work that disturbs asbestos containing materials, the asbestos removal requirements of the Washington Department of Labor and Industries (L&I) also apply. See the L&I website for additional information or contact the Mason County Solid Waste Program Manager.

Asbestos is not currently accepted at Mason County solid waste facilities unless it is in amounts sufficient to fill an entire container so that it can remain segregated and shipped separately as a single load. For large load coordination contact the Mason County Solid Waste Program Manager.

6.2.3 Biomedical Waste

Biomedical wastes are the potential infectious and injurious wastes from medical, veterinary, or intermediate care facilities, as well as "sharps" (syringes) from residential sources.

Existing Practices

Medical facilities have the responsibility to determine which medical wastes are considered biomedical, and then arrange for the proper handling and disposal of these wastes. These wastes should be placed in special bags or rigid plastic containers and then removed by licensed biomedical waste collectors. All biomedical wastes generated by medical facilities are disposed of by private contractors.

Incidental medical wastes generated by households, businesses, and government agencies may be disposed of in the solid waste stream. These wastes should be properly prepared to prevent unintentional human contact by solid waste employees through the use of sharps containers and red bio-medical bags when appropriate.

"Residential sharps" should be disposed of in sharps containers or in capped plastic 1 liter beverage (PET) bottles and disposed of with MSW.

6.2.4 Biosolids

Biosolids are defined by WAC 173-308-080 as "municipal sewage sludge that is a primarily organic, semisolid product resulting from the wastewater treatment process that can be beneficially recycled and meets all applicable requirements under this chapter. This type of material is specifically excluded from the definition of solid waste, although other wastes from the wastewater treatment process (such as grit, screenings, sludge and ash) are still classified as solid waste.

Existing Practices

Mason County and City of Shelton Treatment Facilities

Mason County operates one wastewater treatment plant and two water reclamation facilities. Biosolids from these plants are collected by a private hauler and transported to the City of Shelton Wastewater Treatment Plant as of December 2016. The City of Shelton has a press and dryer that turn biosolids into a dry Class A product that can be put to beneficial use as fertilizer. All biosolids that enter the City of Shelton sewage treatment plant are converted into this Class A product. No monitoring is required for placement of this product after it has been created. Other wastewater plants like Alderbrook and the Squaxin Tribe facilities are also sending their biosolids to Shelton in addition to Mason County facilities.

Needs and Opportunities

All biosolids applications within Mason County are subject to review by County Environmental Health and the requirements established by Ecology and the Environmental Protection Agency. County regulations on the permitting of biosolids sites are found in MCC 6.72.030.

6.2.5 Septic Tank Sludge

Existing Practices

Approximately 1,300,000 tons of septic sludge is generated in Mason County every year. Currently, septage wastes are disposed of mainly at the Bio-Recycling Webb Hill Facility. The LOTT (Lacey, Olympia, Tumwater, and Thurston County) wastewater plant in Olympia and the Central Kitsap PUD Plan also accept septage and at least one hauler has its own disposal facility. It is unknown what percentage of septic sludge is disposed of at the different locations.

Wastewater from homes and businesses may be collected in on-site disposal systems or by a sewerage system connected to a sewage treatment facility. The on-site treatment systems must comply with WAC 246-272A (On-Site Sewage Systems) which requires periodic pumping of the sludge product. The sludge must be pumped and land applied at a permitted facility, trucked to a sewage treatment facility for processing as a biosolid in accordance with WAC 173-308 (Biosolids Management), or disposed of in a solid waste landfill that meets the requirements of WAC 173-351 (Criteria for Municipal Landfills)."

Needs and Opportunities

The County needs to continue to support the Mason County Department of Health in their efforts to provide education and help homeowners to fix failing septic systems. In addition, the county should support efforts to field test new septic system technologies.

6.2.6 Construction and Demolition (C&D) Wastes

Construction and demolition wastes are defined simply as the wastes that are generated from construction and demolition activities. These wastes consist of wood, concrete, gypsum, roofing, glass, carpet and pad, metals, asphalt, bricks, and porcelain. Land clearing wastes, including soil, stumps and brush, are also sometimes included in this category, but these materials are rarely treated as waste.

A category closely related to C&D is “inert wastes.” Inert wastes (wastes that will not burn, or create harmful leachate or gases, etc.) are defined to include some types of C&D wastes, such as concrete and asphalt, but specifically exclude sheetrock, wood, roofing and demolition wastes. The State rules adopted in February 2003 (Ch. 173-350 WAC) provide a more lenient regulatory status for inert wastes than C&D wastes, with disposal requirements that are less strict.

Existing Practices

The production of C&D wastes peak during the spring and summer when most construction and remodeling activities occur. C&D wastes that are brought to the Solid Waste Facility are currently exported along with other MSW generated within the County. The County does not keep track of C&D Waste tonnage separately from other MSW. There are a number of private facilities in the County that accept some types of C&D wastes for end-uses as compost or hog fuel: Mason County Wood Recyclers, North Mason Fiber, Peninsula Topsoil, and Bill McTurnal Enterprises.

All known C&D dump sites are permitted by County Environmental Health. If County Environmental Health becomes aware of any illegal sites, they work with the owners to bring them into compliance. These sites contain C&D wastes, wood wastes, and other materials that may or may not include MSW.

Needs and Opportunities

With growth occurring and predicted into the future in the City of Shelton and unincorporated Mason County, C&D wastes will continue to be a prominent special wastes issue. Mason County has the opportunity to reach much higher diversion rates of C&D wastes than previously attained. Currently, if C&D wastes reach the Solid Waste Facility they are not separated out of the from the MSW stream in the way that scrap metal and tires are diverted.

6.2.7 Disaster Debris

Existing Practices

The contracted Eells Hill Transfer Station Long Hauler is contractually obligated to haul, without charge, three days of disaster debris.

Needs and Opportunities

Planning needs for disaster debris, including large numbers of animal carcasses, should be part of the Mason County Emergency Management Plan. Staff and citizens should look to that plan for dealing with disaster debris.

6.2.8 Electronic Waste

For the purposes of this Plan, electronic waste—or "e-waste" as it is known in the solid waste industry—refers to discarded computers, monitors, and televisions.

Washington State's legislature passed the Electronic Product Recycling Law (SB 6428) in 2006 requiring computer and television manufacturers to provide free recycling of their products throughout the state. The rules for this law are codified in Chapter 70.95N RCW and WAC 173-900. This service became available to households, small governments, small businesses and charities on January 1, 2009, and Ecology oversees this program. Electronic products that are covered include televisions, computers, computer monitors, portable or laptop computers, tablet computers, e-readers, and portable DVD players. Computer peripherals such as keyboards, mice, and printers are not included in this program. To find more information on this law go towww.ecy.wa.gov/programs/swfa/eproductrecycle/index.html.

Existing Practices

There are facilities in Mason County and neighboring counties that are designated E-Cycle Washington sites that collect e-waste for free. To find a list of sites and which site is closest to you go to https://fortress.wa.gov/ecy/recycle/UISearch/ServiceSearch.aspx. This site not only includes e-waste sites but recycling locations for Appliances, Automotive, Batteries, Household Hazardous Waste, E-Waste, Business Hazardous Waste, Light Bulbs, Glass Containers, Metals, Plastic, Paper and Yard Waste, and Miscellaneous Items. The County does not operate an E-Cycle Washington site.

Needs and Opportunities

With the implementation of the state program run by Ecology, there is not a need for the County to be involved with the collection or recycling of e-waste other than directing residents to the appropriate information and sites if asked.

6.2.9 Waste Tires

Waste tires present several issues for storage and disposal:

a. Waste tires provide an ideal breeding ground for mosquitoes which can then transmit life-threatening diseases.
b. Waste tire stockpiles can catch fire as a result of lightning strikes, handling equipment malfunctions, or arson.
c. Waste tire disposal at landfill facilities can hamper proper compaction of waste layers and, once covered, can eventually "float" to the surface because of their shape and tendency to hold air.

Existing Practices

Requirements for waste tire collection, storage and transport are contained within WAC 173-350 which pertains to facilities accumulating more than 800 automobile tires or 8 tons of all type tires. Currently, waste tires are only accepted at the Eells Hill Transfer Station and the Belfair Sand Hill drop box facility where they are segregated in temporary storage piles until they are transported off-site by licensed waste tire transporters for eventual recycling. In 2015, 1,479 waste tires were collected at the Eells Hill and the Belfair sites.

Needs and Opportunities

No planning needs exist for the current method of handling and disposing of waste tires in Mason County. Additional information on waste tire recycling can be found on Ecology's web site under the "Waste 2 Resources" program.

CHAPTER 7

CHARACTERIZATION OF THE PLANNING AREA

7.1 Physical Description

An understanding of the general physical description of Mason County is important because it provides a frame of reference for discussions of existing solid waste handling facilities and practices. Specific physical requirements for these facilities are found in WAC 173-304 *Minimum Functional Standards for Solid Waste Handling* and WAC 173-350 *Solid Waste Handling Standards.*

Mason County has one landfill currently in a closure process and its specific physical characteristics can be found in the Parametrix report *2015 Annual Groundwater Monitoring Report Mason County Landfill* available through the Mason County Utilities and Waste home page. A location specific physical description of the City of Shelton C Street Landfill will be developed as its closure process is implemented.

7.1.1 Geology

Mason County occupies about 970 square miles of land area (See Figure 3.1). The northwestern part of the County lies in the Olympic Mountains and the remainder lies in the Puget Sound Lowland. Elevations within the County range from sea level to 6,612 feet (Mt. Stone).

Rocks exposed within the County consist of both volcanic rocks, with some consolidated sedimentary rocks, and a thick sequence of unconsolidated glacial and non-glacial deposits. The volcanic and consolidated sedimentary rocks are exposed within the Olympic Mountains. Most of the County is underlain by the unconsolidated deposits.

Although there are no specific geologic requirements for solid waste handling facilities, local terrain features and nearby slope stability have been considered during siting to allow easy all weather road access and good traffic flow patterns. Consideration of geologic conditions was used to establish the potential for groundwater or surface water pollution caused by the 24 hour, 25 year storm resulting in excessive precipitation run-on problems.

7.1.2 Hydrology and Hydrogeology

The major source of groundwater recharge in Mason County is precipitation. Part of this precipitation percolates downward into the soil, part drains off as surface runoff, and part returns to the atmosphere by evaporation and transpiration from plants. The Olympics rise to elevations over 6,000 feet, and that portion of the County experiences an average annual rainfall of 200 inches. On the other hand, at its eastern most edge, along the Puget Sound, the County receives an average annual precipitation of 50 inches. The extent to which precipitation infiltrates the surface varies from place to place, depending on the character of the subsurface materials. Essentially, all groundwater tapped in Mason County is from aquifers within the more permeable materials of the various glacial drift deposits. Most groundwater

discharge is to streams, lakes and surrounding marine waters. The movement of groundwater toward discharge points is typically in the direction of the land surface slope.

In most places, the main water table is within 50 feet of the land surface. In general, the water table rises away from marine waterways and major stream valleys, and has a configuration similar to the rising land surface. Deeper aquifers also occur within the coarser phases of the various glacial deposits.

Groundwater quality monitoring is a waste handling facility permitting requirement and during operation inspection of leachate collection systems is performed along with gauging the effectiveness of run-on and run-off prevention during storms.

7.1.3 Climate

Mason County has a mid-latitude west coast marine climatic regime typical of the Puget Sound. The climate is influenced by the Pacific Ocean and Puget Sound water bodies as well as the Olympic and Cascade Mountains. Generally, moderate temperatures are experienced year round and the climate is mild with wet winters and dry summers. Rainfall is typically gentle precipitation with overcast and foggy winter days. Except for higher mountain elevations, winter snowfall is intermittent and melts quickly.

Due to the terrain variations, bodies of water, and weather patterns the amount of precipitation deposited varies considerably across Mason County. These variations were considered in establishing the 24 hour, 25 year interval storm precipitation amounts to be expected at each waste handling facility location.

7.1.4 Air Quality

Air is an essential resource that must be protected from harmful levels of pollution including dust and odors generated at waste handling facilities. Improving air quality is a matter of statewide concern and is in the public interest so Chapter 70.94 RCW “Washington Clean Air Act” was developed to secure and maintain levels of air quality that protect human health and safety, including the most sensitive members of the population, to comply with the requirements of the Federal Clean Air Act, to prevent injury to plant, animal life, and property, to foster the comfort and convenience of Washington's inhabitants, to promote the economic and social development of the state, and to facilitate the enjoyment of the natural attractions of the state.

Further the intent of the RCW is to protect the public welfare, to preserve visibility, to protect scenic, aesthetic, historic, and cultural values, and to prevent air pollution problems that interfere with the enjoyment of life, property, or natural attractions.

To achieve the above goals the Olympic Region Clean Air Agency (ORCAA) is the local agency charged with regulatory and enforcement authority for air quality issues in Clallam, Grays Harbor, Jefferson, Mason, Pacific, and Thurston counties.

There are occasional seasonal problems from slash burning and wildfires that occur in the summer months. Slash burning is used to clear debris following clear cutting of timber areas and results in the production of airborne particulates.

7.2 Population

Population data for incorporated and unincorporated Mason County are provided in Table 7.1. Mason County is the 20th most populous County in Washington State. About 16% of the County's population is concentrated in the City of Shelton, the only incorporated city within Mason County. Overall, the County population has grown by 26% since 2000.

Table 7.1: Mason County Population 1990 to 2015

Area	1990	2000	2010	2015	Annual Increase
Mason County (Total)	38,341	49,405	60,699	62,200	2.5%
Unincorporated (Total)	31,100	40,963	50,865	52,130	2.7%
City of Shelton (Total)	7,241	8,442	9,834	10,070	1.6%

The Office of Financial Management (OFM) developed 25-year population projections for each County in 2012 for planning under the Growth Management Act. The low, medium, and high projections prepared for Mason County show negative to modest growth rates compared to most other Western Washington Counties.

Table 7.2: Mason County Population Projections, 2015 to 2040

Projection	2015	2020	2025	2030	2035	2040	Annual Increase
Low	56,447	58,741	61,075	63,489	65,821	67,925	0.8%
Medium	63,203	67,545	71,929	76,401	80,784	84,919	1.4%
High	69,904	76,239	82,618	89,093	95,472	101,583	1.8%

Comparing the 2015 projections in 2012 with the OFM estimate of 62,200 in 2015 the County population is tracking the medium growth projection the closest. This 1.4% growth is slower than the 2.5% growth experienced by the County from 1990 – 2015.

7.3 Employment and Economic Statistics

7.3.1 General Trends

Regional context

The county now known as Mason was first established as Sawamish County in 1854. Carved out of Thurston County, it extended westward to the Pacific Ocean. In 1864, it was renamed Mason County in honor of Charles H. Mason, first Secretary of Washington Territory. Mason County encompasses the southern part of Hood Canal and many bays and inlets of south Puget Sound. The indigenous peoples include the Coast Salish. In the 1840s, American settlers arrived and began farming.

Local economy

Forest products quickly became the largest industry in the county, and expanded greatly when the railroads made it possible to feed the various mills in the area. Work on creating a terminus for the transcontinental railroad in Union came to an abrupt halt with the Panic of 1893, the most serious economic crisis in the nation's history. In response, banker Alfred Anderson partnered with local loggers to get them back to work and then with Sol Simpson to create the Simpson Logging Company, which became the largest employer in the state. The last few decades of the twentieth century saw a significant decline in the number of timber industry jobs due to mechanization, endangered species protection, and diversification of the Washington and United States economies, with this trend continuing into the present.

The corrections facilities in Shelton and Belfair added hundreds of beds beginning the 1980s, helping to offset job losses in the forest industry. Recreation-based industries, as well as oyster and seafood production and processing, have also increased in importance, and Mason County has become a bedroom community for employees in Thurston, Pierce, and Kitsap counties. In 2014, 52.3 percent of earned income came from residents working outside the county.

7.3.2 Labor Force and Unemployment Rates

Outlook

Mason County has reduced its unemployment rate levels to those last seen in 2008. However, the return to pre-recession employment totals in some industries will be slow. Manufacturing had over 1,900 jobs as recently as 2006 compared to an average of 1,320 so far in 2015. Construction also showed a decline of over 37.0 percent. The only area showing growth since that time is the services sector, particularly in retail trade, professional and business services and state and local government. These trends appear likely to continue in 2016.

Labor force and unemployment

Current labor force and unemployment statistics are available on the employment security department website (www.esd.wa.gov). The last 29 months of data have shown Mason County in single digit unemployment, compared to the January 2010 high of 13.9 percent. The November 2015 rate was 6.9 percent, down from 8.4 percent in November 2014.

The labor force has declined on an annual average basis since 2008, when it stood at 25,400. In the first eleven months of 2015 it has averaged 23,225. Some of the drop in unemployment rates results from this declining labor force. That is a situation that has been seen throughout the state and country as more people dropped out of active job searches or retired. Some of it can also be credited with steady strength in the local job market and a return to more favorable labor market conditions.

Industry employment

Nonfarm industry employment in Mason County has been steadily improving since 2013. There have been gains in most industries since the sharp declines beginning in 2009.

The November 2015 total of 14,700 jobs is 230 more jobs than in November 2014. The largest industries in the Mason County economy remain government (5,560) and trade, transportation and utilities (2,320). The manufacturing industry in November accounted for 1,380 jobs, but saw a loss of 200 jobs over the year. The 2015 industry employment represents a small increase in total nonfarm employment compared to the first eleven months of 2014. This trend will likely be the norm heading into 2016 although manufacturing will face significant headwinds.

Table 7.3: Mason County Unemployment versus Statewide Unemployment

Year	Civilian Labor Force	Employment	Percent Unemployment	
			Mason County	Statewide
2014	23,817	21,934	7.9	6.0
2015	24,099	22,373	7.2	5.7
2016	24,181	22,400	7.4	5.2

Source: Washington Employment Security Department

7.3.3 Median Household Income

The United States Census Bureau estimates the 2015 County annual median household income as $50,406. The state median income is estimated at $61,062 resulting in the Mason County median income as 82.5% of the statewide income.

Land Use Changes in the Dynamics of the Planning Area

Mason County has experienced 26% growth in population since 1990 which results in an annual growth rate of 2.5%. Current economic conditions may slow growth throughout the County, however, as growth over the next 25 years is projected at 1.4% growth.

Forestry-related activities, followed by agriculture, remain the dominate land uses in Mason County. Denser residential zoning districts ranging from three to six dwelling units per acre typically lie in urban growth areas.

Outside of the City of Shelton, the County remains primarily rural in its development patterns except for unincorporated communities of Belfair, Allyn, Union, and Hoodsport.

Current development patterns in the unincorporated areas of the County show growth focused primarily along the Puget Sound waterways, Hood Canal, Shelton, and the Belfair area.

Comprehensive plans and zoning codes in the county and Shelton do not specifically address the location of municipal solid waste management facilities as permitted uses. The Eells Hill Transfer Station is in a Rural Residential 20 District while the County Rural Transfer Stations lie in varying zoning districts. Mason County Code requires a special use permit for any essential public facility. Due to a lack of demand for expansion of solid waste management facilities, the County has not focused on siting these facilities in their comprehensive plan.

CHAPTER 8
PARTICIPANT ROLES IN PLAN DEVELOPMENT

8.1 Overview

The development and update of the Mason County Comprehensive Solid Waste Management Plan (CSWMP) is a public process that involves the Solid Waste Advisory Committee, County staff from the Public Works and Community Services, City of Shelton, Squaxin Island Tribe, Skokomish Tribe, citizens, and the Board of County Commissioners (BOCC).

8.2 Participating Jurisdictions

RCW 70.95 delegates the authority and responsibility for the development of solid waste management plans to counties. Other governing bodies (cities, tribes, state, and federal agencies) may participate in the County's planning process or develop their own plans. State law allows cities to fulfill their solid waste management planning responsibilities in one of three ways:

- By preparing their own plan for integration into the county's plan,
- By participating with the county in preparing a joint plan, or
- By authorizing the county to prepare a plan that includes the city.

The City of Shelton is the only incorporated municipality in Mason County. As in years past, they have agreed to participate in the plan that the County prepares. In addition, because this CSWMP may impact their current and future solid waste management options, careful review of this plan is recommended for the Skokomish Tribe and the Squaxin Island Tribe.

8.3 Role of the Solid Waste Advisory Committee

The Solid Waste Advisory Committee (SWAC) acts as the representatives of the public to provide guidance to the County and municipalities regarding the most environmentally safe and economically responsible methods for waste reduction, recovery, and disposal. State law, RCW 70.95.165, requires each County to appoint a SWAC with a minimum of nine members that represent a balance of interests: citizens, public interest groups, business, the waste management industry, and local elected officials. The Board of County Commissioners (BOCC) appoints members to the committee. The SWAC is an advisory committee only to the BOCC and all actions must be taken by the BOCC.

The SWAC plays an instrumental role in developing and updating the CSWMP. With staff assistance, the SWAC stays informed on all aspects of solid waste management in the County. During the plan preparation process, the SWAC reviews current conditions and makes recommendations for future policies and programs. The current membership (as of February 2017) and affiliations of the SWAC members are shown below in Table 8.1 on the next page.

Table 8.1 – Membership of the Mason County SWAC

Name	Representing
Eric Nelson	Citizen District 1
Vacant	Citizen District 1
Vacant	Citizen District 2
Vacant	Citizen District 2
Cheryl Williams	Citizen District 3
Kevin Schmelzen	Citizen District 3
Jason Dose	City of Shelton
Vacant	Special Groups – Tribes
Rik Frederickson	Special Groups – Waste Industry, Mason County
Delroy Cox	Special Groups – Waste Industry, JDEL Consulting
Vacant	Agriculture and Aquaculture

8.4 Role of Staff

Staff members from the Public Works Department and the Community Services Department, Environmental Health Division support and provide comment to the SWAC about solid waste management activities within the County. They play an active role during the plan development process by providing analysis and making recommendations regarding goals, objectives, and recommendations.

8.5 Role of Citizens

As ratepayers, citizens also share their opinions in the plan development and update process. Once the SWAC prepares a draft document, the (BOCC) will hold one or more public hearings to allow citizens to comment. The BOCC may choose to remand citizen comments back to the SWAC or take action themselves.

8.6 Washington State Laws and Administrative Codes

The State of Washington, through the Revised Code of Washington (RCW), the Washington Administrative Code (WAC), and the Department of Ecology, establishes requirements and guidelines for development of the CSWMP. The Department of Ecology reviews and comments on the draft CSWMP and must approve or deny the final plan. The Utilities and Transportation Commission and Department of Agriculture will also review and comment on the draft CSWMP.

8.7 Board of County Commissioners

The BOCC is the final point of local approval for the CSWMP and any subsequent updates. Their subsequent role in budget development and approval is instrumental to the long-term implementation of the plan.

8.8 Solid Waste Administration

The solid waste planning goal for administration is to ensure that Mason County Public Works, the Environmental Health Division of the Mason County Community Services Department, and the City of Shelton

Public Works Department are adequately staffed, trained, and managed for coordination and implementation of solid waste activities.

8.8.1 Existing Practices

Mason County Public Works

The County's solid waste utility is housed under the Utilities and Waste Management Division of the Public Works Department. The Deputy Director for Utilities and Waste Management is responsible for managing the solid waste, water, and sewer systems for the County. The solid waste services for the County are funded through fees collected at the solid waste facility, drop box stations, and a solid waste grant funded by Ecology. Solid waste staffing consists of the Public Works Director, Deputy Director, Solid Waste Program Manager, six transfer station attendants, and four operators who work on the transfer station tipping floor.

Mason County Community Services Department

The County's Solid Waste Program is part of the Environmental Health Division (EHD). The Environmental Health Specialist for this program is responsible for the monitoring and enforcement of regulations at solid waste handling facilities and sites, as well as, providing technical assistance for review and issuance of solid waste permits. Other duties include the investigation, education, and enforcement of solid waste regulations throughout Mason County. This program is funded by Ecology's Waste 2 Resources Coordinated Prevention Grant Program (CPG) and solid waste permitting fees. This program currently funds the position of one Environmental Health Specialist.

City of Shelton

The City's solid waste utility is included with other functions of the City's Public Works Department. The Director of Public Works is responsible for garbage service, roads, water, sewer, and storm utilities for the City. The solid waste programs for the City of Shelton are a separate utility and funded through garbage collection fees as well as a grant funded by Ecology (CPG). The Department of Public Works consists of a Director, City Engineer, Associate City Engineer, part-time projects engineer, CAD technician, Engineering technician, Superintendent of Public Works, Administrative Assistant, and 21 employees/operators who work on the division crews (water, sewer, garbage, and roads). The solid waste utility has a total of three full time operators who handle all day to day operations. In February of 2017 the Shelton City Commission voted to privatize its solid waste utility functions. It is anticipated that a formal contract/agreement will be reached with a private hauler in the summer of 2017.

8.8.2 Needs and Opportunities

As noted in Table 8.1 vacancies continue to exist in SWAC membership despite advertising the vacancies in the local newspaper and posting application information on the Mason County Solid Waste web Homepage. In addition to a lack of volunteers to serve as a SWAC member, public participation in SWAC meetings is essentially "zero". The SWAC members and BOCC need to continue researching for a new method(s) to improve citizen participation in Solid Waste activities.

CHAPTER 9

RELATIONSHIP TO OTHER PLANS AND PERMITTING OF SOLID WASTE FACILITIES

9.1 State Solid and Hazardous Waste Plan

Chapter 70.95 and Chapter 70.105 RCW require Ecology to develop a state solid and hazardous waste plan and update it on a regular (5 year) basis. In 2004 the state plan was called the Beyond Waste Plan which had five initiatives focused on waste reduction as the highest priority followed by recycling and then safe disposal. The Beyond Waste Plan was Washington's statewide policy guidance document for local governments to follow in developing their individual solid waste management plans to reduce wastes and toxic substances. The Beyond Waste Plan stated that local solid waste plans had to be consistent with the state plan in order to receive grant funds through the Coordinated Prevention Grant (CPG) program. The plan was updated in 2009 and provided state-wide progress toward achieving the three main priorities.

The most recent state plan update (published in June 2015) is renamed the Moving Washington Beyond Waste and Toxics (Ecology publication 15-04-019) and was developed by incorporating the sustainable materials management (SMM) approach initiated by the U.S. Environmental Protection Agency (EPA) and also implemented by the Oregon Department of Environmental Quality. In this new approach, the state plan has shifted from five initiatives and two current issues to five sections. Each section contains goals and actions for the next five years:

1. Managing Hazardous Waste and Materials – addresses regulated hazardous waste generators, pollution prevention plans, and moderate risk waste.
2. Managing Solid Waste and Materials – deals with the scope of solid waste and materials work, including organic materials.
3. Reducing Impacts of Materials and Products – focuses on improving materials that eventually become components of products or waste, by focusing on what is used and produced.
4. Measuring progress – addresses data needed for measuring progress.
5. Providing Outreach and Information.

Many of the goals and actions of the new Moving Washington Beyond Waste and Toxics Plan reflect changing priorities and implementing large-scale state and national policies and regulations that are beyond the resources or capacity of a local government the size of Mason County. However, there are modest objectives and activities within this revised Consolidated Solid Waste Management Plan (CSWMP) that correlate to the new state plan and these are identified in Chapters 1 and 2.

9.2 Previous County Solid Waste Planning

Other plans that are in effect or being developed in Mason County may interact with the requirements of this Plan. Each is discussed separately below.

9.2.1 Previous Solid Waste Management Plans

The most recently adopted Consolidated Solid Waste Management Plan (CSWMP) amendments were approved in 2011. These amendments were to a plan that was adopted in 2008. This 2017 plan has been developed in part to continue and expand upon actions to emphasize waste reduction, reuse and recycling.

9.2.2 Moderate Risk Waste Management Plan

The County's Moderate Risk Waste Management Plan of 1991 addresses the need to remove moderate risk wastes (MRW) from traditional solid waste handling and disposal paths. This plan was integrated into the 2011 Revision of the CSWMP and is now part of this CSWMP.

9.3 Resource Lands and Critical Areas Designations

While Mason County does not fully plan under the Growth Management Act (GMA), it has designated resource lands and critical areas, as well as adopted development regulations that protect critical areas as required by RCW 36.70A. Title 17 of the Mason County Code contains provisions for protecting resource lands in the County. The County does recognize the importance of comprehensive planning and continues to participate in countywide long range planning efforts that incorporate those aspects of the GMA that are relevant to local needs and circumstances.

Overall, the concerns that prompted development of the GMA, such as urban growth, sprawl, congestion, and the loss of open space, are not generally applicable to Mason County. No changes to existing Mason County Code regarding resource lands or critical areas are recommended in this plan.

9.4 Economic Development Plan

The latest Overall Economic Development Strategy for the Columbia-Pacific Region (CEDS) was completed in 2014-2015. The CEDS serves as a comprehensive statement of plans for district-wide economic growth and development over the next twenty years in Mason, Grays Harbor, Thurston, and Pacific Counties. More locally, the Economic Development Council of Mason County is working through a strategic planning process that focuses on the industries of tourism, value-added agriculture, advanced manufacturing, career and technical education, information and communications technology, forest products, and healthcare.

9.5 Other County Plans

All County Plans must be in compliance with the County Comprehensive Plan. The last approved County Comprehensive Plan was in 2005 and the County is currently in the process of updating it. An updated 2017-2022 Capital Facilities Plan was approved by the BOCC in 2016.The development of any new or expanding waste handling facility must be in accordance with Mason County Code Title 17 - Zoning. The Shorelines Master Program regulates development in shoreline areas and is currently being updated. The last approved Shorelines Master Program is from 2005.

9.6 Permitting of Solid Waste Facilities

WAC 173-350 requires that no solid waste storage, treatment, processing, handling or disposal facility shall be maintained, established, substantially altered, expanded or improved until the person operating or owning such site has obtained a permit or permit deferral from EHD or a beneficial use exemption from Ecology.

EHD is the local enforcement agency for County, state and federal regulations regarding solid waste activities. EHD is the responsible local authority (RCW 70.95.160) for issuing permits for solid waste facilities and enforcing against illegal solid waste handling or disposal activities. Mason County code 6.72 empowers EHD to issue operating permits, conduct inspections, and carry out enforcement related to solid waste facilities such as landfills, transfer stations, moderate risk waste and recycling facilities. Authority to investigate complaints of illegal garbage dumping is also defined in this local law.

Codes applying to environmental health issues such as Air and Water quality, SEPA requirements, and other threats to human health or the environment include 90.48 RCW, 70.95 RCW, 70.105 RCW, 70.94 RCW, WAC 173-350, WAC 173-200, and WAC 197-11.

CHAPTER 10
OVERVIEW OF PLANNING TO DATE

10.1 Previous Solid Waste Plans

Washington State enacted RCW 70.95 (requiring counties to develop solid waste plans) in 1969, and Mason County adopted their first plan in 1971. The original plan was revised in 1992, with updates in 1998, 2008, and 2011. Table 10.1 shows the status of the recommendations from the most recent plan (2011). The Chapters listed below correspond to the 2011 CSWMP, not the current CSWMP.

Table 10.1 Status of Recommendations from the Previous Plan (2011)

Chapter 3 Waste Reduction		Current Status
3.1	Outreach improvements—Improve and regularly update the information available on Mason County's web site. Bilingual information to include signage at blue-box sites and web page information. Prepare for direct mailing to all County residents an annual summary of the County's solid waste and recycling programs.	Ongoing
3.2	Continue to evaluate the Blue-Box Recycling Program to improve opportunities and improve site access. Consider adding sites on available public properties and develop an incentive for private site owners to continue to provide land for siting the boxes.	Expansion of curbside recycling eliminated the need for implementation
3.3	Local governments should develop and expand electronic billing options to reduce paper mailings.	Implemented
3.4	Offer businesses and schools waste audits and education designed to reduce their waste stream and disposal costs.	Implemented by Private Company
3.5	Improve recycling options for employees at local government facilities.	Limited Activity
3.6	Support the efforts of the private sector to implement and expand curbside-recycling program in Mason County.	Ongoing
3.7	Diversion of organics at county owned solid waste facilities for composting or other beneficial use.	Yard waste diverted, other organics are not.
3.8	Support local efforts to expand recycling options for common products, such as electronics, Styrofoam, additional plastics and other materials.	Ongoing
Chapter 4 Solid Waste Collection, Transfer and Disposal		**Current Status**
4.1	Develop separate organic waste and construction and demolition waste tipping areas at the Eells Hill Transfer Station Facility where materials collected could either be processed onsite or transferred to an existing private composting operation in Mason County.	Yard waste is diverted at Eells Hill. C&D and other organics are not diverted.
4.2	Continue to review and evaluate operational procedures at all of the solid waste collection facilities to reduce waiting times during peak-use periods.	Ongoing
4.3	Explore new opportunities for public/private partnerships dealing with improving solid and special waste collection, processing, transport, and disposal.	Ongoing

Table 10.1 Status of Recommendations from the Previous Plan (2011)(continued)

Chapter 5 Solid Waste Administration and Enforcement		Current Status
5.1	Explore additional abatement and public property cleanup funding alternatives.	Ongoing
5.2	Assist local regulatory and law enforcement agencies with the implementation and enforcement of new and existing laws and solid waste regulations.	Ongoing
Chapter 6 Special Waste Streams		**Current Status**
6.1	Explore alternatives to the disposal of large animals infected with contagious diseases and provide education to farmers.	Department of Agriculture Function
6.2	Participate in discussions and provide assistance where necessary to assist with evaluations of proposed methods for handling salmon carcasses.	Function of State Agencies
6.3	BioMedical Waste Public Education Campaign	Not Implemented
6.4	Septic Tank Sludge disposal alternatives.	Ongoing by private companies
6.5	Facility Diversion at Eells Hill Transfer Station (C&D)	C&D Diversion not Implemented
6.6	Public Education of private C&D Recycling Facilities	Ongoing
6.7	Disposal Ban at County Facilities (C&D)	Not Implemented
6.7	State Plan Support by County and City (E-waste)	Ongoing
6.8	County-operated Collection Site (E-waste)	Implemented by private parties, not County
6.9	Annual or seasonal e-waste collection events	Implemented by private parties
6.10	Landfill Ban on E-Waste	Implemented
6.11	Wood Waste Facility Diversion at Eells Hill	Implemented
6.12	Public Education of private wood waste recycling facilities	Ongoing
6.13	Disposal Ban of wood waste at Eells Hill within Municipal Solid Waste	Not Implemented
Chapter 7Household Hazardous Wastes		**Current Status**
7.1	Hazardous Waste Education	Ongoing
7.2	Collection of Household Hazardous Waste	Ongoing
7.3	Business Technical Assistance and collection	Not Implemented
7.4	Enforcement and Compliance	Ongoing
7.5	Used Oil Recycling Program at County sites	Ongoing
7.6	Health and Safety of operating staff.	Ongoing

10.2 Jurisdictional Involvement

In accordance with RCW 70.95, the Mason County CSWMP is a collaborative effort between the County and the City of Shelton. City of Shelton Resolution 892-0506 passed on June 11, 2006 authorizes Mason County to include the City of Shelton in its CSWMP pursuant to RCW 70.95.080.

10.3 Plan Review

10.3.1 Annual Review

The SWAC will review the CSWMP annually, on the anniversary of BOCC approval of the CSWMP, to track the status of recommended actions and their efficacy in achieving the plan goals.

10.3.2 Five-Year Review: 2022

Every five years, Mason County Public Works will undertake a comprehensive review of the plan to determine its overall performance. RCW 70.95 outlines the requirements for maintenance of plans. The SWAC will assist in this process and generally advise the County of overall concerns and potential revisions. Based on this input, the County may need a plan amendment or a plan revision.

10.4 Plan Amendment

Plan amendments constitute additions to an existing program or changes that implement a program. Plan amendments do not require the same extensive level of review and adoption as required of a plan revision, which often focuses on establishing a new overall vision or approach for solid waste management within the County. The type of changes that prompt a plan amendment includes: updating the 6- and 20-year projects that are in the same scope and scale as the current approved plan, adding an interim program to provide an equivalent service because of an implementation delay of a full program, making minor changes in the scope of the program, such as identifying the number of permitted facilities or the addition of new target audiences for education, and inventorying actions and non-actions implemented from the original plan.

The amendment process entails the following steps:

1. County staff consultation with the SWAC
2. Development of a draft amended plan and forwarded to the Board of County Commissioners, participating jurisdictions, and the regional Department of Ecology solid waste planner
3. Receipt of letters of concurrence from all participating jurisdictions and comments from the Department of Ecology on the draft amended plan
4. Adjustment of the draft amended plan, if necessary
5. Public hearing on the draft amended plan held before the Board of County Commissioners.
6. Action by the Board of County Commissioners and forward adopted amended plan to the Department of Ecology.

10.5 Plan Revision

A plan revision may include redefining the vision for solid waste management within the County and updating each component of the plan to make it current. Examples of plan revision involve:

1. Major shifts in the level of service in a program that is not specified in the plan.
2. Closure of a local landfill and a transition to long-haul.
3. Development of a new private transfer or disposal facility.
4. Regionalization between previously independent planning entities

Plan revisions require the same adoption process as adoption of a new plan. The Department of Ecology publication *Guidelines for the Development of Local Solid Waste Management Plans and Plan Revisions* provides further detail on plan amendments and plan revisions.

10.6 Solid Waste Financial Plan

Mason County Solid Waste Fund #402 is an enterprise fund. All solid waste revenues are used for expenditures within Fund #402. Budgets are set annually so that revenues from tipping fees, CPG grants, and other revenues equal or exceed the expenditures annually. Revenues and expenditures are tallied and reviewed on a monthly basis.

In 2017 total budgeted expenditures are $4,101,137. 2017 expenditures include $423,000 for transfer station improvements and $130,000 for a Grizzly Crane Replacement. 2015 expenditures totaled $2,916,325 and 2016 expenditures totaled $3,417,892. These annual expenditures include payments to Republic Services for long haul solid waste disposal of $1,480,356 in 2015, $1,953,099 in 2016, and a budget of $1,800,000 in 2017.

In accordance with Ecology guidelines Mason County has developed a six-year capital improvement program as shown in Table 10.2. The improvements listed come from the Capital Investment Needs Report completed by Parametrix in 2016 and included as Appendix A in the CSWMP.

Table 10.2: Mason County Six-Year Solid Waste Capital Improvement Program

Project	2017	2018	2019	2020	2021	2022	Funding Source
1) Replace Grizzly Crane	$123,000						Tipping Fees
2) Main Transfer Station Bldg. Improvements	$423,000						Tipping Fees
3) HHW Improvements		$250,000					Tipping Fees, CPG Grant
4) Replace self-haul transfer building			$275,000				Tipping Fees
5) Upgrade Diesel Fueling Facility					$25,000		Tipping Fees

The projects identified in Table 10.2 are discussed briefly below.

1) Replace Grizzly Crane – In February of 2017 the existing Grizzly Crane that is used to compact solid waste into the long haul containers was replaced with a refurbished crane of the same model.
2) Main Transfer Station Building Improvements – This is a collection of improvements identified in the Parametrix Report focused on the Main Transfer Station Building. The County has hired a consultant to complete the design for these improvements and the County intends to go out to bid for construction in 2017 although construction may be completed in 2018. The scope of work includes:
    a. Replace and extend transfer building topload chute with skirt.
    b. Upgrade transfer building storm water and leachate drainage systems.
    c. Install code compliant stairs between upper and lower level of transfer building.
    d. Overlay transfer building asphalt tipping floor.
    e. Overlay lower level of transfer building floor and install directional curbing.
3) HHW Improvements – The Parametrix report identified a potential cost of over $1 Million to replace the existing Household Hazardous Waste Facility and create a code compliant facility. This is a very large cost for our solid waste program. Because the amount of HHW that we collect is fairly limited the County has looked into other alternatives. One option the County found might be more cost effective is a pre-fabricated self-contained Hazmat Building. There are sizes available that meet or exceed the amount of space we currently use for HHW. We have an existing concrete pad we could place one of these units on next to our existing HHW facility so no site preparation is needed. We would just need to hook up power and water to the unit. An estimated cost for this is $250,000.
4) Replace Self-Haul Transfer building – The self-haul transfer building is in need of replacement. The Parametrix Report provided an estimated cost of $157,000 - $241,000. A cost of $275,000 is listed in our plan to account for inflation between 2016 and 2019.
5) Upgrade Diesel Fueling Facility – Upgrades to the fueling facility to resolve code compliance issues.

Improvements at the Rural Drop Box Stations will be done under maintenance projects and are not included in this capital improvement program.

Beyond six-years the County should consider options for constructing a new or expanded transfer station at the Eells Hill location. The existing facility is nearing its capacity to handle the amount of waste it receives. Table 10.3 provides projections of population, tonnage, and annual expenditures over the next 20 years for the Mason County Solid Waste System assuming continued public operation of the facilities.

Table 10.3 Long Term Financial Projections for Solid Waste System, 2020 to 2040

Year	2015	2020	2025	2030	2035	2040
Population	62,200	67,545	71,929	76,401	80,784	84,919
Total Tonnage	**37,155**	**40,527**	**43,157**	**45,841**	**48,470**	**50,951**
Tipping Fee/Ton	$91.25	$96.85	$102.81	$109.13	$115.83	$122.95
Expenditures/Ton	**$78.49**	**$83.31**	**$88.43**	**$93.87**	**$99.63**	**$105.76**
O&M Expenditures	$2,916,325	$3,376,300	$3,816,400	$4,303,100	$4,829,100	$5,388,600

Tipping fees and expenditures per ton in Table 10.3 are based on an annual CPI increase of 1.2%, the average increase from 2015 – 2017. The population and tonnage projections are from Table 6.5.

APPENDIX A

Solid Waste System Capital Investment Needs

Prepared for

Mason County Public Works
100 W Public Works Drive
Shelton, Washington 98584

Prepared by

Parametrix
719 2nd Avenue, Suite 200
Seattle, WA 98104
T. 206.394.3700 F. 1.855.542.6353
www.parametrix.com

CITATION

Parametrix. 2016. Solid Waste System Capital Investment Needs. Prepared by Parametrix, Seattle, WA. October 5, 2016.

CERTIFICATION

The technical material and data contained in this document were prepared under the supervision and direction of the undersigned, whose seal, as a professional engineer licensed to practice as such, is affixed below.

Prepared by Karl R Hufnagel, PE

Checked by Ian Sutton, PE

Approved by Jenifer Young

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS

County	Mason County Public Works
CSWMP	Comprehensive Solid Waste Management Plan
HHW	Household Hazardous Waste
RCW	Revised Code of Washington

1. INTRODUCTION

Mason County Public Works (County) is in the process of revising its Comprehensive Solid Waste Management Plan (CSWMP) in accordance with the Revised Code of Washington (RCW) 70.95. As required by RCW 70.95, the CSWMP must include, at a minimum, in addition to other items:

- An inventory of any deficiencies in meeting current solid waste handling needs
- Long-range needs for solid waste handling facilities projected 20 years into the future
- A 6-year construction and capital acquisition program for solid waste handling facilities

Parametrix was retained to develop a prioritized list of facility recommendations for the County's solid waste facilities for inclusion in the CSWMP.

The County's four solid waste facilities include:

- Shelton transfer station and recycling facilities, 501 W Eells Hill Road
- Belfair drop box station, 1611 NE Sand Hill Road
- Union drop box station, 1391 E McReavy Road
- Hoodsport drop box station, 260 N Foothills Park Road

In accordance with the scope of work of the professional services agreement, number 16-002, executed June 27, 2016, this assessment focuses on the following key areas of the facilities:

- Facility configuration, design and condition, including traffic circulation, materials receiving, storage, and load-out areas
- Facility maintenance practices
- Equipment type, usage, and maintenance
- Customer and employee safety
- Operating procedures and practices, including hauling activities
- Customer service standards
- Staffing requirements, deployment, and training

The four facilities were inspected by a team consisting of the following Parametrix solid waste professionals and County public works staff on July 12, 2016:

- Karl Hufnagel – Parametrix
- Ian Sutton – Parametrix
- Melissa McFadden – Mason County
- Sarah Grice – Mason County
- Zach Foster – Mason County

The purpose of the site inspection was to gather firsthand information regarding the condition and functionality of the facilities in the key areas listed above.

2. FINDINGS AND RECOMMENDATIONS

2.1 Findings

All four facilities are over 20 years old, and while generally they are in full serviceable condition, each facility exhibits substantial amounts of deferred maintenance. Each facility is in need of routine minor repair and, in some cases, major rehabilitation and/or improvement to continue to meet current operational needs.

In assessing the facilities, the Parametrix-led team considered improvements that would deliver benefits to the County in one or more of the following areas:

- Safety
- Operational efficiency and/or operating cost reduction
- Improved functionality
- Improved customer service
- Environmental enhancement
- Code compliance
- Staff welfare
- Routine facility maintenance and upkeep
- Major renewal and replacement (of equipment)

In addition to physical condition and possible code non-compliance issues, the team noted a number of operational aspects that may benefit from improvements and/or changes to the facilities.

A total of 13 deficient conditions and/or areas of possible improvement were observed at the three drop box stations, which are summarized in Table 2-1.

A total of 43 deficiencies and/or areas for possible improvement were observed at the Shelton transfer station, which are summarized in Table 2-2.

Tables 2-1 and 2-2 also include a brief description of the deficiency and/or possible improvement, an indication of whether the item will require outside assistance to address the issue, a list of interdependent deficiencies or improvements, the primary and secondary benefits (see list above) from addressing the item, a preliminary estimated order of magnitude cost to address the item, and, a suggested time frame for addressing the item (Immediate, Mid-Term, and Long Term). Assignment of the timing categories takes into account the apparent urgency of the corrective action.

Table 2-2 also includes suggested groupings of certain improvement items that are recommended for implementation in the near term, which require similar skills and expertise to address, or may be interdependent and best addressed in concert with each other. These improvements are likely most efficiently accomplished by grouping and completing as a comprehensive effort. More specifically, there are two suggested groupings as follows, listed by improvement number as shown in Table 2-2:

Transfer Station Improvements Group 1:

- 1. Restore and/or upgrade transfer building wastewater and surface water drainage systems
- 3. Replace failing self-haul tipping building superstructure
- 6. Replace and extend transfer building topload chute with skirt
- 7. Install transfer trailer scale in topload bay or elsewhere on site
- 8. Install sidewalk/stairs between upper and lower level of transfer building

- 35. Resurface transfer building asphalt tipping floor
- 37. Evaluate use of wheel stops for commercial stalls in transfer building

In addition, this group could also include drop box station improvement 12, Evaluate roof framing for snow load capacity, listed in Table 2-1.

Code Compliance Assessments Group 2:

- 15. Assess Household Hazardous Waste (HHW) facility code compliance and functional performance
- 26. Assess on-site equipment diesel fueling facility code compliance
- 28. Assess liquid fuel receiving facility code compliance
- 30. Assess fire hazard risks and on-site response capabilities

In consultation with County staff, Parametrix identified a selected group of priority improvements and developed planning level cost estimate ranges for these items. The total cost range for each of these estimates is included in the far right-hand column in Tables 2-1 and 2-2. The backup estimates for the cost ranges are included in Appendix A.

2.2 Recommendations

Based on the findings of this assessment, Parametrix recommends that Mason County initiate steps to implement all improvements categorized as “Immediate,” and begin planning for longer range items categorized as “Mid-Term.” If simultaneous undertaking of all the “Immediate” improvements exceeds the County’s capacity, it is recommended that these improvements be prioritized and action taken on the highest priority items.

Table 2-1. MASON COUNTY SOLID WASTE CAPITAL IMPROVEMENT ASSESSMENT
UNION, BELFAIR, AND HOODSPORT DROP BOX STATIONS
October 5, 2016

Improvement No.	Related or Dependent Improvement	Requires Outside Consultant or Contractor	Improvement	Benefit [1]		Cost [2]			Timing			Planning Level Cost Estimate	Relevant Codes & Standards[3]
				Primary	Secondary	Low	Medium	High	Immediate (1 Year)	Mid Term (6 Years)	Long Term (20 Years)		
13		No	Secure site perimeter with fencing at secondary gate - Union Drop Box Station	S		X			X			**$2,000 - $3,000**	
4	2, 3	No	Restripe pavements throughout site as needed	RM		X			X				
5		No	Install wide "Red" safety zone paint along edge of all potential customer/employee fall areas, and update safety signage	S		X			X				
7	1	No	Clean roof and gutter of drop box shelter (before repainting)	RM		X			X				
12		Yes	Evaluate roof framing for snow load capacity	S		X			X			**$7,000 - $9,000**	
6	1	No	Restore missing downspouts and broken gutter at Union Drop Box Station	RM		X			X				
1	6, 7	Yes	Repair damaged siding/framing and repaint exterior siding and trim of drop box shelter (items 6 and 7 shall be conducted prior to item 1)	RM			X		X			**$27,000 - $36,000**	
11		No	Install metals disposal box at Belfair Drop Box Station	OE	CC	X			X				A, H
10		No	Install secondary containment in MRW sheds for fuel reservoirs	EE		X			X			**$9,000 - $12,000**	
2	3	No	Repair damaged and missing asphalt pavement	RM			X		X				
8		No	Repair/replace damaged fencing at Belfair Drop Box Station	RM		X				X			
3	2	No	Overlay pavements	RM			X			X			
9		No	Evaluate improved movable topload chutes	OE		X				X			

1 Benefit Categories:
S - Safety
OE - Operational Efficiency/Operating Cost Reduction
IF - Improved Functionality
CS - Customer Service
EE - Environmental Enhancement
CC - Code Compliance
RM - Routine Maintenance
SW - Staff Welfare

2 Cost Ranges Per Drop Box Site
Low: < $10,000
Medium: $10,000 - $50,000
High: >$50,000

3 Relevant Codes & Standards
A - Mason County Code of Ordinances, Chapter 14.48 Stormwater Management & Department of Ecology Stormwater Management Manual for Puget Sound Basin
B - International Building Code (IBC) as amended
C - International Fire Code (IFC) as amended
D - International Mechanical Code (IMC) as amended
E - Uniform Plumbing Code (UPC) as amended
F - Occupational Safety and Health Administration (OSHA) Regulations
G - National Fire Protection Association (NFPA) Standards including, but not limited to:
NFPA 30, Flammable and Combustible Liquids Code
NFPA 70, National Electrical Code
NFPA 101, Life Safety Code
NFPA 395, Standard for the Storage of Flammable and Comustible Liquids at Farms and Isolated Sites
NFPA 497, Classification of Flammable Liquids, Gases or Vapors and of Hazardous (Classified) Locations for Electica Installation in Chemical Process Areas
H - Washington Administrative Code Title 173, Chapter 350, Section 360 Moderate risk waste handling
I - Washington Adminsitrative Code Title 173, Chapter 350, Section 310 Intermediate solid waste handling facilities

Table 2-2. MASON COUNTY SOLID WASTE CAPITAL IMPROVEMENT ASSESSMENT
SHELTON TRANSFER STATION
October 5, 2016

	Improvement No.	Requires Outside Consultant or Contractor Assistance	Improvement	Benefit [1]		Cost [2]			Timing			Planning Level Cost Estimate	Relevant Codes & Standards[3]
				Primary	Secondary	Low	Medium	High	Immediate (1 Year)	Mid Term (6 Years)	Long Term (20 Years)		
Main Transfer Building	25	No	Install wide "Red" safety zone paint along edge of all potential customer/employee fall areas, and update safety signage	S		X			X			**$1,400 - $1,800**	
	37	Yes	Evaluate use of wheel stops for commercial stalls in transfer building	S		X			X			**$1,300 - $1,800**	
	6	Yes	Replace and extend transfer building topload chute with skirt	OE	EE, S			X	X			**$179,000 - $278,000**	
	1	Yes	Restore/Upgrade transfer building wastewater and surface water drainage systems	EE, CC	RM		X		X			**$94,000 - $135,000**	A, I
	38	No	Replace Grizzly Crane	OE, RR				X		X		**$266,000-$344,000**	
	35	No	Resurface transfer building asphalt tipping floor	RM	S		X		X			**$34,000 - $53,000**	
	7	Yes	Install transfer trailer scale in topload bay or elsewhere on site	OE				X	X			**$154,000 - $238,000**	
	34	No	Clean/clear transfer building gutters	RM		X			X				
	33	Yes	Install energy efficient lighting in transfer building	OE	S		X			X			
	32	No	Recoat transfer building primary framing	RM			X		X				
	8	No	Install sidewalk/stairs between upper and lower level of transfer building	S	SW		X		X			**$24,000 - $35,000**	
Self-Haul Transfer Building	3	Yes	Replace failing self-haul tipping building superstructure	S	CC			X	X			**$157,000 - $241,000**	B, F
	4	Yes	Replace entire self-haul tipping building and relocate to existing transfer building	S, OE	CC			X		X			B, F
	5	Yes	Construct self-haul tipping building wastewater collection system	EE			X		X				
	2	Yes	Construct topload station for yardwaste material	OE	IF, CS			X		X			
Household Hazardous Waste	16	No	Repair and freeze-protect HHW facility emergency eyewash and shower unit	SW, CC		X			X			**$5,000 - $7,000**	E, F, H
	17	No	Replace HHW facility emergency eyewash and shower unit with freeze protected unit (instead of repairing existing unit)	SW, CC		X			X			**$10,000 - $15,000**	E, F, H
	42	Yes	Modify HHW facility sump with pump to new wastewater holding tank	CC	EE	X			X				A, B, C, E, G, H
	43	No	Install loading dock door type rain curtain at HHW facility oil handling bay	CC	EE	X			X				A, B, C, E, G, H
	15	Yes	Assess HHW facility code compliance and functional performance	CC, OE, SW, S, CS, EE		X			X			**$21,000 - $27,000**	B, C, D, E, F, G, H
	18	Yes	Replace existing HHW facility with new facility designed to current standards and needs in accordance with facility assessment results	CC, OE, SW, EE, S, CS				X		X		**$1,052,000 - $1,599,000**	B, C, D, E, F, G, H
	19	Yes	Rehabilitate existing HHW facility to current standards and needs in accordance with facility assessment results	CC, OE, SW, EE, S, CS				X		X			B, C, D, E, F, G, H
Fueling Facility	26	Yes	Assess on-site equipment diesel fueling facility code compliance	CC	S	X			X			**$7,000 - $9,000**	B, C, D, F, G
	28	Yes	Assess liquid fuel receiving facility code compliance	CC	S	X			X			**Included with Item 26**	B, C, D, F, G
	27	Yes	Upgrade on-site equipment diesel fueling facility to meet code as required	CC	S		X		X				B, C, D, F, G
	29	Yes	Upgrade liquid fuel receiving facility to meet code as required	CC	S		X		X				B, C, D, F, G
Recycling Station	12	No	Install new primary site access for self-haul recycle area	OE	CS			X		X			
	20	No	Pave self-haul recycling area	CS, OE			X			X			
Scale House and Support Buildings	13	No	Study cashiering methods in use at other counties to identify procedures that could reduce transaction times and increase scale facility throughout	OE	CS	X			X				
	21	No	Rehabilitate two existing employee support buildings and Scale House	SW, CC			X			X			B, C, D, E, F
	22	Yes	Construct new central employee support building in lieu of rehabilitating existing support buildings	SW, CC			X	X		X			B, C, D, E, F
	11	Yes	Install third (outbound) scale and second scale house and convert existing outbound scale to bi-directional use	OE	CS			X		X			

	Improvement No.	Requires Outside Consultant or Contractor Assistance	Improvement	Benefit [1]		Cost [2]			Timing			Planning Level Cost Estimate	Relevant Codes & Standards [3]
				Primary	Secondary	Low	Medium	High	Immediate (1 Year)	Mid Term (6 Years)	Long Term (20 Years)		
Site-wide	9	No	Repair failing/failed pavements throughout site	RM	S		X		X				
	10	No	Overlay pavements	RM				X		X			
	36	No	Restripe pavements throughout site	RM	S	X			X				
	30	Yes	Assess fire hazard risks and on-site response capabilities	S		X			X			**$8,000 - $11,000**	
	31	Yes	Upgrade on-site fire response capabilities as required	S				X		X			
	23	Yes	Prepare site stormwater management plan	CC, EE			X			X			A, I
	24	Yes	Implement improvements covered by new stormwater management plan	CC, EE			X			X			A, I
	14	Yes	Prepare transfer station site master plan that addresses long range transfer, recycling and HHW needs including handling of scrap metals, tires, organics, hazardous materials, traffic circulation, operational efficiency, customer convenience, safety, staff welfare, surface water management, on-site fire protection, etc.	OE, SW, S, IF, CS, EE, CC			X			X		**$78,000 - $101,000**	A, B, C, D, E, F, G, H, I
Equipment	41	No	Replace 2007 Volvo L45 Loader (keep old as spare)	RR				X		X			
	40	No	Replace 1999 Sterling Roll-Off Truck (keep old as spare)	RR				X		X			
	39	No	Replace 2000 Ottawa Yard Tractor	RR				X		X			

1 Benefit Categories:
- S - Safety
- OE - Operational Efficiency/Operating Cost Reduction
- IF - Improved Functionality
- CS - Customer Service
- EE - Environmental Enhancement
- CC - Code Compliance
- RM - Routine Maintenance
- SW - Staff Welfare
- RR - Renewal and Replacement

2 Cost Ranges
- Low: < $10,000
- Medium: $10,000 - $50,000
- High: >$50,000

3 Relevant Codes & Standards
- A - Mason County Code of Ordinances, Chapter 14.48 Stormwater Management & Department of Ecology Stormwater Management Manual for Puget Sound Basin
- B - International Building Code (IBC) as amended
- C - International Fire Code (IFC) as amended
- D - International Mechanical Code (IMC) as amended
- E - Uniform Plumbing Code (UPC) as amended
- F - Occupational Safety and Health Administration (OSHA) Regulations
- G - National Fire Protection Association (NFPA) Standards including, but not limited to:
  - NFPA 30, Flammable and Combustible Liquids Code
  - NFPA 70, National Electrical Code
  - NFPA 101, Life Safety Code
  - NFPA 395, Standard for the Storage of Flammable and Comustible Liquids at Farms and Isolated Sites
  - NFPA 497, Classification of Flammable Liquids, Gases or Vapors and of Hazardous (Classified) Locations for Electica Installation in Chemical Process Areas
- H - Washington Administrative Code Title 173, Chapter 350, Section 360 Moderate risk waste handling
- I - Washington Adminsitrative Code Title 173, Chapter 350, Section 310 Intermediate solid waste handling facilities

Certain improvements require similar skills and expertise and/or may be interdependent. These improvements may be most efficiently accomplished by grouping and completing as a composite effort.

Proposed Improvement Group 1 - Transfer Station Improvements: Improvements 1, 3, 6, 7, 8, 35, 37

Proposed Improvement Group 2 - Code Compliance Assessments: Improvements 15, 26, 28, 30

Appendix A

Cost Estimates

August 3, 2016

Mason County Solid Waste System Capital Improvement Assessment

Shelton Transfer Station Site

Cost Estimates

Table of Contents

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
1. Restore/upgrade transfer building wastewater and surface water drainage systems					
CONSTRUCTION:					
Replace trench drains					
	Demolish old drains	LF	170	$25.00	$4,250
	Install larger, prefab, pre-sloped drains set in concrete	LF	170	$200.00	$34,000
Scope and jet clean wastewater piping		LS	LS	LS	$5,000
Cleanout wastewater holding tank		LS	LS	LS	$1,000
Scope and vacuum clean 8" stormwater infiltration line and catch basins		LS	LS	LS	$5,000
Test pit infiltration pipe location and assess		LS	LS	LS	$1,000
Pipe issue allowance		LS	LS	LS	$2,000
Wastewater holding tank rehab allowance		LS	LS	LS	$2,000
Construction Subtotal:					$54,250
General Conditions/Profit 25%					$13,563
Construction Total					$67,813
Design/Bid Documents	Outside consultant	HRS	100	$150.00	$15,000
Total Improvement 1					$82,813
Cost Range:					
	Low -20%				$66,250
	High +30%				$107,656
Other County costs					
	Relocation of waste transfer operations during construction	Weeks	2	$3,000.00	$6,000
	Procurement and Admin for design	LS	LS	LS	$5,000
	Procurement and Admin for construction	LS	LS	LS	$5,000
	Consultant construction oversight and shop drawing review	HRS	40	$150.00	$6,000
	Permits	N/A			$0
	WSST of Construction, 8.5%				$5,764
	Total Other County Costs				$27,764
High/Low Cost Range		High	Low		
		$135,420	$94,014		
Round		$135,000	$94,000		

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
3. Replace self-haul building superstructure					
CONSTRUCTION					
Demolish existing structure and dispose		LS	LS	LS	$5,000
Concrete foundation improvements		LS	LS	LS	$5,000
Construct new steel framed structure with metal siding/roofing and daylight roof panels		SF	1750	$40.00	$70,000
Lighting with power feed		SF	1750	$10.00	$17,500
Construction Subtotal					$97,500
General Conditions/Profit 25%					$24,375
Construction Total					$121,875
Design/Bid Documents	Outside consultant	HRS	250	$180.00	$45,000
Total Improvement 3					$166,875
Cost Range:					
	Low -20%				$133,500
	High +30%				$216,938
Other County costs					
	Relocation of waste transfer operations during construction	Weeks	2	$1,000.00	$2,000
	Procurement and Admin for design and construction	LS	LS	LS	$0 *
	Consultant construction oversight and shop drawing review	HRS	60	$150.00	$9,000
	Permits, 2% of Construction Cost	LS	LS	LS	$2,438
	WSST of Construction, 8.5%				$10,359
	Total Other County Costs				$23,797
	* procurement and admin included with other improvement items				

High/Low Cost Range	High	Low
	$240,734	$157,297
Round	$241,000	$157,000

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
6. Replace and extend transfer building topload chute with skirt					
CONSTRUCTION					
Demolish existing chute and recycle steel		LS	LS	LS	$5,000
Concrete repair allowance		LS	LS	LS	$4,000
Construct new chute with rubber belt skirt		LB	40000	$3.00	$120,000
Construction Subtotal					$129,000
General Conditions/Profit 25%					$32,250
Construction Total					$161,250
Design/Bid Documents	Outside consultant	HRS	200	$180.00	$36,000
Total Improvement 6					$197,250
Cost Range:					
	Low -20%				$157,800
	High +30%				$256,425
Other County costs					
	Relocation of waste transfer operations during construction	Weeks			$0 *
	Procurement and Admin for design and construction	LS	LS	LS	$0 **
	Consultant construction oversight and shop drawing review	HRS	30	$150.00	$4,500
	Permits, 2% of Construction Cost	LS	LS	LS	$3,225
	WSST of Construction, 8.5%				$13,706
	Total Other County Costs				$21,431
	* relocation cost covered in other related improvements that will be done simultaneously				
	** procurement and admin included with other improvement items				

High/Low Cost Range	High	Low
	$277,856	$179,231
Round	$278,000	$179,000

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
7. Install 70' above grade transfer trailer scale in topload bay or elsehwere on site (see Note 1)					
CONSTRUCTION					
Site Grading/Earthwork		LS	LS	LS	$10,000
Construct scale foundations/approach slabs		CY	50	$400.00	$20,000
Install scale		LS	LS	LS	$55,000
Install peripheral equipment (card reader, digital display, ticket printer)		LS	LS	LS	$8,000
Bring electrical power to scale, grounding		LS	LS	LS	$15,000
Test and certify scale equipment		LS	LS	LS	$5,000
Construction Subtotal					$113,000
General Conditions/Profit 25%					$28,250
Construction Total					$141,250
Design/Bid Documents	Outside consultant	HRS	150	$180.00	$27,000
Total Improvement 7					$168,250
Cost Range:					
	Low -20%				$134,600
	High +30%				$218,725
Other County costs					
	Impact on operations	Weeks			$0 *
	Procurement and Admin for design and construction	LS	LS	LS	$0 **
	Consultant construction oversight and shop drawing review	HRS	30	$150.00	$4,500
	Permits, 2% of Construction Cost	LS	LS	LS	$2,825
	WSST of Construction, 8.5%				$12,006
	Total Other County Costs				$19,331
	* no operational relocation required				
	** procurement and admin included with other improvement items				

Note 1: For this estimate it is assumed that the scale will be located outside the transfer building topload bay due to structural complications

High/Low Cost Range	High	Low
	$238,056	$153,931
Round	$238,000	$154,000

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
8. Install sidewalk and stairs between upper and lower levels of the transfer building (one side)					
CONSTRUCTION					
Site Grading/Earthwork		LS	LS	LS	$1,000
Construct concrete side walks and stairs		CY	20	$400.00	$8,000
Install galvanized steel pipe handrail		LF	60	$60.00]	$3,600
Coat handrail		LS	LS	LS	$500
Construction Subtotal					$13,100
General Conditions/Profit 25%					$3,275
Construction Total					$16,375
Design/Bid Documents	Outside consultant	HRS	30	$180.00	$5,400
Total Improvement 8					$21,775
Cost Range:					
	Low -20%				$17,420
	High +30%				$28,308
Other County costs					
	Impact on operations	Weeks			$0 *
	Procurement and Admin for design and construction	LS	LS	LS	$0 **
	Consultant construction oversight and shop drawing review	HRS	30	$150.00	$4,500
	Permits, 2% of Construction Cost	LS	LS	LS	$328
	WSST of Construction, 8.5%				$1,392
	Total Other County Costs				$6,219
	* no operational relocation required				
	** procurement and admin included with other improvement items				

High/Low Cost Range	High	Low
	$34,527	$23,639
Round	$35,000	$24,000

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
14. Prepare transfer station site master plan					
Prepare master plan documents	Outside consultant	HRS	200	$175.00	$35,000
		HRS	150	$200.00	$30,000
		HRS	60	$125.00	$7,500
		HRS	30	$110.00	$3,300
Total Improvement 14					$75,800
Cost Range:					
	Low -10%				$68,220
	High +20%				$90,960
Other County costs					
	Procurement and Admin for consultant	LS	LS	LS	$10,000
	Total Other County Costs				$10,000

High/Low Cost Range	High	Low
	$100,960	$78,220
Round	$101,000	$78,000

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
15. Assess HHW facility code compliance and functional performance					
Prepare HHW facility assessment report	Outside consultant	HRS	80	$150.00	$12,000
		HRS	20	$200.00	$4,000
		HRS	10	$110.00	$1,100
Total Improvement 15					$17,100
Cost Range:					
	Low -10%				$15,390
	High +20%				$20,520
Other County costs					
	Procurement and Admin for consultant	LS	LS	LS	$6,000
	Total Other County Costs				$6,000

High/Low Cost Range	High	Low
	$26,520	$21,390
Round	$27,000	$21,000

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
16. Repair and freeze protect HHW facility emergency eyewash and shower					
CONSTRUCTION					
Repair piping		LS	LS	LS	$1,000
Install self-regulating electrical heat tracing and insulate unit		LS	LS	LS	$1,000
Install 10 gallon hotwater tank heater to provide tempered water to eyewash and shower unit with dedicated 120V electrical circuit		LS	LS	LS	$2,000
Construction Subtotal					$4,000
General Conditions/Profit 25%					$1,000
Construction Total					$5,000
Design/Bid Documents	Outside consultant	N/A			$0
Total Improvement 16					$5,000
Cost Range:					
	Low -20%				$4,000
	High +30%				$6,500
Other County costs					
	Impact on operations	Weeks			$0 *
	Procurement and Admin for construction	LS	LS	LS	$500
	Permits, 2% of Construction Cost	NA			
	WSST of Construction, 8.5%				$425
	Total Other County Costs				$925
	* no operational relocation required				

	High	Low
High/Low Cost Range	$7,425	$4,925
Round	$7,000	$5,000

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
17. Replace existing emergency eyewash and shower in the HHW facility with a freeze-protected unit					
CONSTRUCTION					
Repair piping		LS	LS	LS	$1,000
Install eyewash and shower similar to HAWS model 8317CTFP on 220V dedicated electrical circuit		LS	LS	LS	$5,500
Install 10 gallon hotwater tank heater to provide tempered water to eyewash and shower unit with dedicated 120V electrical circuit		LS	LS	LS	$2,000
Construction Subtotal					$8,500
General Conditions/Profit 25%					$2,125
Construction Total					$10,625
Design/Bid Documents	Outside consultant	N/A			$0
Total Improvement 17					$10,625
Cost Range:					
	Low -20%				$8,500
	High +30%				$13,813
Other County costs					
	Impact on operations	Weeks			$0 *
	Procurement and Admin for construction	LS	LS	LS	$500
	Permits, 2% of Construction Cost	NA			
	WSST of Construction, 8.5%				$903
	Total Other County Costs				$1,403
	* no operational relocation required				
High/Low Cost Range		High	Low		
		$15,216	$9,903		
Round		$15,000	$10,000		

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
18. Replace existing HHW facility with new facility designed to current standards and needs					
CONSTRUCTION					
Processing area		SF	2500	$75.00	$187,500
Receiving area		SF	1800	$45.00	$81,000
Storage area		SF	2100	$65.00	$136,500
Civil work		LS	LS	LS	$50,000
Electrical work		LS	LS	LS	$125,000
Mechanical work		LS	LS	LS	$125,000
Construction Subtotal					$705,000
General Conditions/Profit 25%					$176,250
Construction Total					$881,250
Design/Bid Documents	Outside consultant	HRS	200	$200.00	$40,000
		HRS	300	$180.00	$54,000
		HRS	500	$145.00	$72,500
		HRS	100	$125.00	$12,500
		HRS	300	$110.00	$33,000
Total Improvement 18					$1,093,250
Cost Range:					
	Low -20%				$874,600
	High +30%				$1,421,225
Other County costs					
	Impact on operations	Weeks			$0 *
	Procurement and Admin for design and construction	LS	LS	LS	$10,000
	Consultant construction oversight and shop drawing review	HRS	500	$150.00	$75,000
	Permits, 2% of Construction Cost	LS	LS	LS	$17,625
	WSST of Construction, 8.5%				$74,906
	Total Other County Costs				$177,531
	* no impacts on operations if new facility located in undeveloped area				

	High	Low
High/Low Cost Range	$1,598,756	$1,052,131
Round	$1,599,000	$1,052,000

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
25. Install wide "Red" safety zone coating along ede of all potential customer/employee fall areas (done by County labor)					
Pressure wash and prepare surfaces		LS	LS	LS	$500
Apply coating		LS	LS	LS	$1,000
Total Improvement 25					$1,500
Cost Range:					
	Low -10%				$1,350
	High +20%				$1,800
Other County costs					
	None				
	Total Other County Costs				$0

High/Low Cost Range	High	Low
	$1,800	$1,350
Round	$1,800	$1,400

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
26 and 28. Assess equipment diesel fueling and liquid fuel receiving facility code compliance					
Assess code compliance	Outside consultant	HRS	30	$150.00	$4,500
		HRS	4	$200.00	$800
		HRS	4	$110.00	$440
Total Improvements 26 and 28					$5,740
Cost Range:					
	Low -10%				$5,166
	High +20%				$6,888
Other County costs					
	Procurement and Admin for consultant	LS	LS	LS	$2,000
	Total Other County Costs				$2,000

	High	Low
High/Low Cost Range	$8,888	$7,166
Round	$9,000	$7,000

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
30. Assess fire hazard risks and on-site fire response capabilities					
Assess fire hazard risks and capabilities	Outside consultant	HRS	40	$150.00	$6,000
		HRS	4	$200.00	$800
		HRS	4	$110.00	$440
Total Improvement 30					$7,240
Cost Range:					
	Low -10%				$6,516
	High +20%				$8,688
Other County costs					
	Procurement and Admin for consultant	LS	LS	LS	$2,000
	Total Other County Costs				$2,000

High/Low Cost Range	High	Low
	$10,688	$8,516
Round	$11,000	$8,000

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
35. Resurface repair transfer building tipping floor surface					
CONSTRUCTION					
Scarify top 6 inches of floor/recycle material		SF	3240	$3.00	$9,720
Subgrade preparation allowance		LS	LS	LS	$5,000
Place new 6 inch lift of Class B asphalt concrete		Ton	115	$100.00	$11,500
Construction Subtotal					$26,220
General Conditions/Profit 25%					$6,555
Construction Total					$32,775
Design/Bid Documents	Outside consultant	HRS	12	$180.00	$2,160
			24	$125.00	$3,000
Total Improvement 35					$37,935
Cost Range:					
	Low -20%				$30,348
	High +30%				$49,316
Other County costs					
	Relocation of waste transfer operations during construction	Weeks			$0 *
	Procurement and Admin for design and construction	LS	LS	LS	$0 **
	Consultant construction oversight and shop drawing review	HRS	4	$150.00	$600
	Permits, 2% of Construction Cost	LS	LS	LS	$656
	WSST of Construction, 8.5%				$2,786
	Total Other County Costs				$4,041

* relocation cost covered in other related improvements that will be done simultaneously
** procurement and admin included with other improvement items

High/Low Cost Range	High	Low
	$53,357	$34,389
Round	$53,000	$34,000

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
37. Evaluate use of wheel stops for commercial unloading stalls in transfer building (assume results in no change)					
Evaluate wheel stop options	Outside consultant	HRS	4	$150.00	$600
		HRS	4	$200.00	$800
		HRS	1	$90.00	$90
Total Improvements 37					$1,490
Cost Range:					
	Low -10%				$1,341
	High +20%				$1,788
Other County costs					
	Procurement and Admin for consultant	LS	LS	LS	$0 *
	Total Other County Costs				$0
	* procurement and admin included with other improvement items				

High/Low Cost Range	High	Low
	$1,788	$1,341
Round	$1,800	$1,300

Shelton Transfer Station

Item	Sub-item	Unit	Qty	Unit Price	Price
38. Replace Grizzly refuse crane (see Note 1)					
CONSTRUCTION					
Remove existing crane equipment/salvage to contractor		LS	LS	LS	$5,000
Modify foundation anchor bolts		LS	LS	LS	$5,000
Install crane and hydraulic power unit		LS	LS	LS	$195,000
Modifications to electrical supply to HPU		LS	LS	LS	$5,000
Test and certify crane equipment		LS	LS	LS	$5,000
Construction Subtotal					$215,000
General Conditions/Profit 15%					$32,250
Construction Total					$247,250
Design/Bid Documents	Outside consultant	HRS	80	$180.00	$14,400
Total Improvement 38					$261,650
Cost Range:					
	Low -10%				$235,485
	High +20%				$313,980
Other County costs					
	Impact on operations	Weeks			$0 *
	Procurement and Admin for design and construction	LS	LS	LS	$0 **
	Consultant construction oversight and shop drawing review	HRS	30	$150.00	$4,500
	Permits, 2% of Construction Cost	LS	LS	LS	$4,945
	WSST of Construction, 8.5%				$21,016
	Total Other County Costs				$30,461

* no operational relocation required
** procurement and admin included with other improvement items

Note 1: For this estimate it is assumed that the new crane will be similar geometrically and in terms of electrical power demand to existing crane but require modification of foundation bolts

High/Low Cost Range	High	Low
	$344,441	$265,946
Round	$344,000	$266,000

August 3, 2016

Mason County Solid Waste System Capital Improvement Assessment

Union, Belfair and Hoodsport Drop Box Stations

Cost Estimates

Table of Contents

Union, Belfair and Hoodsport Drop Box Stations

Item	Sub-item	Unit	Qty	Unit Price	Price
1. Repair damaged siding/framing and repaint exterior siding and trip of drop box shelter (cost is for one station; work required at all three stations)					
CONSTRUCTION:					
Repair framing		LS	LS	LS	$1,000
Replace damaged siding		LS	LS	LS	$1,000
Paint exterior wall surfaces (2 coats)		LS	LS	LS	$2,000
Construction Subtotal:					$4,000
General Conditions/Profit 25%					$1,000
Construction Total					$5,000
Design/Bid Documents	Outside consultant	HRS	0	$0.00	$0
Total Improvement 1 (per station)					$5,000
Cost Range:					
	Low -20%				$4,000
	High +30%				$6,500
Other County costs					
	Procurement and Admin for construction	LS	LS	LS	$5,000
	Permits	N/A			$0
	WSST of Construction, 8.5%				$425
	Total Other County Costs				$5,425
High/Low Cost Range (per station)		High	Low		
		$11,925	$9,425		
Round		$12,000	$9,000		

Union, Belfair and Hoodsport Drop Box Stations

Item	Sub-item	Unit	Qty	Unit Price	Price
10. Install secondary containment in MRW sheds for fuel reservoirs (cost is for one station: work required at all three stations)					
Work performed by County staff					
CONSTRUCTION:					
Fabricate custom containment pan or procure prefab units		LS	LS	LS	$1,000
Install containment plan		LS	LS	LS	$1,000
Installation Subtotal:					$2,000
Total Improvement 1 (per station)					$2,000
Cost Range:					
	Low -20%				$1,600
	High +30%				$2,600
Other County costs					
	Administration	LS	LS	LS	$1,000
	Permits	N/A			$0
	WSST of Construction, 8.5%	N/A			$0
	Total Other County Costs				$1,000

High/Low Cost Range (per station)	High	Low
	$3,600	$2,600
Round	$4,000	$3,000

Union, Belfair and Hoodsport Drop Box Stations

Item	Sub-item	Unit	Qty	Unit Price	Price
12. Evaluate roof framing for snow load capacity (station drop box shelters are identical but work will be based on Union station)					
Assess structural code compliance and load capacity	Outside consultant	HRS	30	$180.00	$5,400
		HRS	8	$200.00	$1,600
		HRS	4	$90.00	$360
Total Improvement 12					$7,360
Cost Range:					
	Low -10%				$6,624
	High +20%				$8,832
Other County costs					
	Procurement and Admin for consultant	LS	LS	LS	$0 *
	Total Other County Costs				$0

* Procurement and admin included with improvements for Shelton transfer station

High/Low Cost Range	High	Low
	$8,832	$6,624
Round	$9,000	$7,000

Union, Belfair and Hoodsport Drop Box Stations

Item	Sub-item	Unit	Qty	Unit Price	Price
13. Secure site perimter with fencing at secondary gate at Union station					
CONSTRUCTION:					
Install short sections of fencing at gate		LS	LS	LS	1,500
Construction Subtotal:					1,500
General Conditions/Profit 25%					375
Construction Total					1,875
Cost Range:					
	Low -20%				1,500
	High +30%				2,438
Other County costs					
	Administration	LS	LS	LS	500
	Permits	N/A			0
	WSST of Construction, 8.5%	N/A			159
	Total Other County Costs				659
High/Low Cost Range (per station)		High	Low		
		$3,097	$2,159		
Round		$3,000	$2,000		

APPENDIX B – REGULATORY OVERVIEW

The basis for the Mason County Comprehensive Solid Waste Management Plan (CSWMP) is a "flowdown" of federal regulations to the state and county level.

Federal Regulations

The Resource Conservation and Recovery Act — commonly referred to as RCRA — is our nation's primary law governing the disposal of solid and hazardous waste. Congress passed RCRA on October 21, 1976 to address the increasing problems the nation faced from our growing volume of municipal and industrial waste. RCRA, which amended the Solid Waste Disposal Act of 1965, set national goals for:

- Protecting human health and the environment from the potential hazards of waste disposal.
- Conserving energy and natural resources.
- Reducing the amount of waste generated.
- Ensuring that wastes are managed in an environmentally-sound manner.

To achieve these goals, RCRA established three distinct, yet interrelated, programs:

- The hazardous waste program, under RCRA Subtitle C, establishes a system for controlling hazardous waste from the time it is generated until its ultimate disposal — in effect, from "cradle to grave."
- The solid waste program, under RCRA Subtitle D, encourages states to develop comprehensive plans to manage nonhazardous industrial solid waste and municipal solid waste, sets criteria for municipal solid waste landfills and other solid waste disposal facilities, and prohibits the open dumping of solid waste.
- The underground storage tank (UST) program, under RCRA Subtitle I, regulates underground storage tanks containing hazardous substances and petroleum products.

The requirements to implement RCRA programs are found in Title 40 of the Code of Federal Regulations (40CFR) Parts 239 - 282. Title 40 arranges mainly environmental regulations that were promulgated by the US Environmental Protection Agency (EPA), based on the provisions of United States laws (statutes of the U.S. Federal Code).

Under subtitle C the EPA has primary responsibility for permitting hazardous waste treatment, storage, and disposal (TSD) facilities until a state submits its own hazardous waste program application and it is approved by the EPA. The Washington State program has been approved by the EPA and the responsibility for implementing the program requirements was delegated to the Washington Department of Ecology.

In contrast to the hazardous wastes under subtitle C, Congress intended that non-hazardous wastes covered by subtitle D would be an individual state responsibility. Under subtitle D the state and local governments are the primary entities responsible for planning, permitting, regulating, implementing and establishing enforcement agencies for the management and disposal of non-hazardous solid wastes. However the EPA establishes minimum technical design and operating criteria for disposal facilities which must be included in the state regulations.

Important CFR sections for reference:

- 40CFR256 – Guidelines for Development and Implementation of State Solid Waste Management Plans
- 40CFR257 – Guidelines for Classification of Solid waste Disposal Facilities and Practices
- 40CRF258 – Criteria for Municipal Waste Landfills

Washington State Regulations

Similar to federal regulations, laws for waste disposal are established in the Revised Code of Washington (RCW) and implemented through the Washington Administrative Code (WAC). The laws related to solid waste are found in several sections which include:

- Title 36 Counties - establishes all County authorities and responsibilities
- Title 70 Public Health and Safety – establishes programs and responsibilities for public health and safety
- Title 80 Public Utilities – establishes the Public Utilities and Transportation Commission with its authorities and responsibilities
- Title 81 Transportation – establishes laws relative transportation activities such as motor transport, ferries, pipelines, railroads and air transport

Within these titles specific chapters of interest are:

Chapter 36.58 Solid Waste Disposal – provides the legislative authority of a county to develop ordinances to establish a system or systems of solid waste handling for all unincorporated areas of a county or portions thereof.

Chapter 70.05 Local Health Departments, Boards, Officers – Regulations – In part, the local Board of Health shall have supervision over all matters pertaining to the preservation of the life and health of the people within its jurisdiction and shall:

> (1) Enforce through the local health officer or the administrative officer appointed under RCW 70.05.040, if any, the public health statutes of the state and rules promulgated by the state board of health and the secretary of health;

(2) Supervise the maintenance of all health and sanitary measures for the protection of the public health within its jurisdiction;

(3) Enact such local rules and regulations as are necessary in order to preserve, promote and improve the public health and provide for the enforcement thereof

Chapter 70.93 Waste reduction, recycling, and model litter control act.
Chapter 70.95 Solid waste management – Reduction and recycling
Chapter 70.95A Pollution control – Municipal bonding authority
Chapter 70.95D Solid waste incinerator and landfill operators
Chapter 70.95I Used oil recycling
Chapter 70.95M Mercury
Chapter 70.95N Electronic product recycling
Chapter 81.77 Solid waste collection companies
The Washington Administrative Code (WAC) codifies the regulations established by the RCWs and arranges them by subject or the agency responsible for implementation.

Title 173 Department of Ecology – through its regulations implements the applicable portions of the RCWs noted above.

WAC 173-304 Minimum Functional Standards for Waste Handling: This regulation is promulgated under the authority of chapter 70.95 RCW to protect public health, to prevent land, air, and water pollution, and conserve the state's natural, economic, and energy resources by:

(1) Setting minimum functional performance standards for the proper handling of all solid waste materials originating from residences, commercial, agricultural and industrial operations and other sources;

(2) Identifying those functions necessary to assure effective solid waste handling programs at both the state and local level;

(3) Following the direction set by the legislature for the management of solid waste in order of descending priority as applicable:

(a) Waste reduction;
(b) Waste recycling;
(c) Energy recovery or incineration;
(d) Landfill.

(4) Describing the responsibility of persons, municipalities, regional agencies, state and local government under existing laws and regulations related to solid waste;

(5) Requiring use of the best available technology for siting, and all known available and reasonable methods for designing, constructing, operating and closing solid waste handling facilities; and

(6) Establishing these standards as minimum standards for solid waste handling to provide a statewide consistency and expectation as to the level at which solid waste is managed throughout the state. Local ordinances setting standards for solid waste handling shall not be less stringent than these minimum standards, and shall be adopted not later than one year after the effective date of this regulation. Local ordinances need not adopt WAC 173-304-011, County planning requirements, but shall otherwise comply with the requirements of WAC 173-304-011. Solid waste regulations or ordinances adopted by counties, cities, or jurisdictional boards of health shall be filed with the department ninety days following adoption.

WAC 173-331 Vehicle Battery Recycling: The department of ecology has been authorized under RCW 70.95.670 to implement and enforce a vehicle battery recycling program. The purpose of this chapter is to establish procedures for implementation and enforcement of RCW 70.95.610 through 70.95.660, which is designed to accomplish the recycling of used vehicle batteries through a system of exchanging batteries at the point of sale.

WAC 173-345 Recyclable Materials – Transporter and Facility Requirements: The purpose of this chapter is to establish minimum standards for the transportation of recyclable materials; establish notice and reporting standards for recycling facilities and material recovery facilities (MRFs); ensure that recyclable materials are not delivered for disposal; establish penalties for transporters of recyclable materials, recycling facilities, and material recovery facilities (MRFs) that do not meet the standards of this chapter.

WAC 173-350 Solid Waste Handling Standards: This chapter is adopted under the authority of chapter 70.95 RCW, Solid waste management—Reduction and recycling, to protect public health, to prevent land, air, and water pollution, and conserve the state's natural, economic, and energy resources by:

(1) Setting minimum functional performance standards for the proper handling and disposal of solid waste originating from residences, commercial, agricultural and industrial operations and other sources;

(2) Identifying those functions necessary to assure effective solid waste handling programs at both the state and local level;

(3) Following the priorities for the management of solid waste as set by the legislature in chapter 70.95 RCW, Solid waste management—Reduction and recycling.

(4) Describing the responsibility of persons, municipalities, regional agencies, state and local government related to solid waste;

(5) Requiring solid waste handling facilities to be located, designed, constructed, operated and closed in accordance with this chapter;

(6) Promoting regulatory consistency by establishing statewide minimum standards for solid waste handling; and

(7) Encouraging the development and operation of waste recycling facilities and activities needed to accomplish the management priority of waste recycling

WAC 173-900 Electronic Products Recycling Plan: 1) The Washington state legislature has required that a convenient, safe, and environmentally sound system for the collection, transportation, and recycling of covered electronic products (CEPs) be established throughout Washington state. The legislature determined that such a system must encourage the design of electronic products that are less toxic and more recyclable and that the responsibility for this system must be shared among all stakeholders, with manufacturers financing the collection, transportation, and recycling system.

(2) This chapter implements the Electronic Product Recycling Act, chapter 70.95N RCW. This chapter:

(a) Defines the administrative and enforcement responsibilities delegated to the department of ecology; and

(b) Describes the processes and procedures that ecology will use to carry out those responsibilities.

WAC 173-910 Mercury-Containing Lights Product Stewardship Program: 1) Washington state law requires establishment of a convenient and environmentally sound product stewardship program for mercury-containing lights throughout Washington state by January 1, 2013. Every producer of mercury-containing lights sold in or into Washington State for residential use must fully finance and participate in the product stewardship program. Such a system is essential to collect spent mercury lighting from covered entities which, when improperly disposed, releases mercury that threatens human health and the environment.

(2) This chapter implements Mercury-containing lights—proper disposal, chapter 70.275 RCW.

(3) Washington state law established a statewide goal of recycling all end-of-life mercury-containing lights by 2020 through expanded public education, a uniform statewide requirement to recycle all mercury-containing lights, and the development of a comprehensive, safe, and convenient collection system that includes use of residential curbside collection programs, mail-back containers, increased support for household hazardous waste facilities, and a network of additional collection locations.

Title 197 Department of Ecology (Council on Environmental Policy)

WAC 197-11 establishes uniform rules for each agency to comply with the State Environmental Policy Act (SEPA)

Title 480 Utilities and Transportation Commission

WAC 480-70 Solid Waste and/or Refuse Collection Companies: The legislature has declared that operating as a solid waste collection company in the state of Washington is a business affected with a public interest and that such companies should be regulated. The purpose of these rules is to administer and enforce Chapter 81.77 RCW by establishing standards for:

- Public safety;
- Fair practices;
- Just and reasonable charges;
- Nondiscriminatory application of rates;
- Adequate and dependable service;
- Consumer protection; and
- Compliance with statutes, rules and commission orders

Mason County Code

Title 6.0 –Sanitary Code of the Mason County District Board of Health:

Chapter 6.72 Solid Waste and Biosolids Handling and Facilities Regulations: Pursuant to RCW Chapter 70.95, the primary responsibility for managing solid waste is assigned to local government. The Mason County health department is authorized, by this regulation and by WAC 173-350 as adopted in this chapter, to regulate residential, commercial/business solid waste and biosolids handling activities through use permit requirements, site approval criteria and may require limited purpose permits or agreements between the health department and any person, company, corporation, trust or other business entity not required to obtain a permit. The criteria for permits are contained in WAC 173-350-700.

Title 8.0 – Environmental Policy – Adopts the SEPA requirements of WAC 197-11

Title 13 – Utilities:

Chapter 13.30 Minimum Levels of Service for Residential Recycling Collection: The purpose of this chapter is to define minimum levels of service for curbside recycling collection, which shall be provided to households serviced by the solid waste collection company operating in the urban and rural areas of Mason County

APPENDIX C – GLOSSARY

"Air quality standard" means a standard set for maximum allowable contamination in ambient air as set forth in Chapter 173-400WAC, General regulations for air pollution sources.

"Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs.

"Asbestos" is the commercial term for a group of highly fibrous minerals that readily separate into long thin microscopic fibers. The fibers are heat resistant and chemically inert and possess a high electric thermal insulation quality. The fibers are considered a carcinogenic air pollutant, when inhaled, and most uses were banned in 1991.

"Biosolids" means municipal sewage sludge that is a primarily organic, semisolid product resulting from the wastewater treatment process, that can be beneficially recycled and meets all applicable requirements under Chapter 173-308 WAC, Biosolids management. Biosolids includes a material derived from biosolids and septic tank sludge, also known as septage, that can be beneficially recycled and meets all applicable requirements under Chapter 173-308 WAC, Biosolids management.

"Closure" means those actions taken by the owner or operator of a solid waste handling facility to cease disposal operations or other solid waste handling activities, to ensure that all such facilities are closed in conformance with applicable regulations at the time of such closures and to prepare the site for the post-closure period.

"Closure plan" means a written plan developed by an owner or operator of a facility detailing how a facility is to close at the end of its active life.

"Composting" means the controlled degradation of organic solid waste yielding a product for use as a soil conditioner

"Conditionally exempt small quantity generator (CESQG)" means a dangerous waste generator whose dangerous wastes are not subject to regulation under Chapter 70.105 RCW, Hazardous waste management, solely because the waste is generated or accumulated in quantities below the threshold for regulation and meets the conditions prescribed in WAC 173-303-070 (8)(b).

"Container" means a device used for the collection, storage, and/or transportation of solid waste including but not limited to reusable containers, disposable containers, detachable containers and tanks, fixed or detachable.

"Dangerous wastes" means any solid waste designated as dangerous waste by the department under Chapter 173-303WAC

"Construction and Demolition (C&D) Waste" means solid waste, largely inert waste, resulting from the demolition or razing of buildings, roads and other man-made structures. Demolition waste consists of, but is not limited to, concrete, brick, bituminous concrete, wood and masonry, composition roofing and roofing

paper, steel, and minor amounts of other metals like copper. Plaster (i.e., sheet rock or plaster board) or any other material, other than wood, that is likely to produce gases or a leachate during the decomposition process and asbestos wastes are not considered to be demolition waste for the purposes of Chapter 173-304 WAC.

"Disaster Waste" refers to debris created as a result of a natural or man-made disaster such as an earthquake, flooding, or fires.

"Disposal" or "deposition" means the discharge, deposit, injection, dumping, leaking, or placing of any solid waste into or on any land or water.

"Drop box facility" means a facility used for the placement of a detachable container including the area adjacent for necessary entrance and exit roads, unloading and turn-around areas. Drop box facilities normally serve the general public with loose loads and receive waste from offsite.

“Ecology” Washington State Department of Ecology

"Facility" means all contiguous land (including buffer zones) and structures, other appurtenances, and improvements on the land used for solid waste handling

"Facility structures" means buildings, sheds, utility lines, and drainage pipes on the facility.

"Garbage" means unwanted animal and vegetable wastes and animal and vegetable wastes resulting from the handling, preparation, cooking and consumption of food, swill and carcasses of dead animals, and of such a character and proportion as to be capable of attracting or providing food for vectors, except sewage and sewage sludge

"Groundwater" means that part of the subsurface water that is in the zone of saturation.

“Landfill" means a disposal facility or part of a facility at which solid waste is permanently placed in or on land including facilities that use solid waste as a component of fill.

"Leachate" means water or other liquid that has been contaminated by dissolved or suspended materials due to contact with solid waste or gases there from.

"Medical waste" (or Biomedical Waste) means all the infectious and injurious waste originating from a medical, veterinary, or intermediate care facility

"Moderate risk waste (MRW)" means solid waste that is limited to conditionally exempt small quantity generator (CESQG) waste and household hazardous waste (HHW) as defined in Chapter 173-350 WAC.

"Municipal solid waste (MSW)" means a subset of solid waste which includes unsegregated garbage, refuse and similar solid waste material discarded from residential, commercial, institutional and industrial sources and community activities, including residue after recyclables have been separated. Solid waste that has been segregated by source and characteristic may qualify for management as a non-MSW solid waste, at a facility designed and operated to address the waste's characteristics and potential environmental impacts. The term MSW does not include:

■ Dangerous wastes other than wastes excluded from the requirements of chapter 173-303 WAC, Dangerous waste regulations, in WAC 173-303-071 such as household hazardous wastes;

■ Any solid waste, including contaminated soil and debris, resulting from response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. 9601), Chapter 70.105D RCW, Hazardous waste cleanup—Model Toxics Control Act, Chapter 173-340 WAC, the Model Toxics Control Act cleanup regulation or a remedial action taken under those rules; nor

■ Mixed or segregated recyclable material that has been source-separated from garbage, refuse and similar solid waste. The residual from source separated recyclables is MSW.

"Organics" refers to carbon-based materials that include food, yard debris, manures, and other agricultural residues.

"Parametrix" means an engineering consulting firm with offices in Washington that completed the Capital Investment Needs Report included as Appendix A.

"Septage" or **"domestic septage"** is liquid or solid material removed from septic tanks, cess pools, portable toilets, type III marine sanitation devices, vault toilets, pit toilets, RV holding tanks, or similar systems that receive only domestic sewage. Septage may also include commercial or industrial septage mixed with domestic septage if approved in accordance with the provisions in WAC 173-308-020(3)(g).

"Sewage sludge" means solid, semisolid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated.

"Solid waste" or **"wastes"** means all putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, contaminated soils and contaminated dredged material, and recyclable materials.

"Solid waste handling" means the management, storage, collection, transportation, treatment, use, processing or final disposal of solid wastes, including the recovery and recycling of materials from solid wastes, the recovery of energy resources from such wastes or the conversion of the energy in such wastes to more useful forms or combinations thereof.

"Solid waste handling unit" means discrete areas of land, sealed surfaces, liner systems, excavations, facility structures, or other appurtenances within a facility used for solid waste handling.

"Source separation" means the separation of different kinds of solid waste at the place where the waste originates.

"Storage" means the holding of solid waste materials for a temporary period.

"Surface water" means all lakes, rivers, ponds, wetlands, streams, inland waters, salt waters and all other surface water and surface water courses within the jurisdiction of the state of Washington

“Twenty-five-year storm" means a storm of twenty-four hours duration and of such intensity that it has a four percent probability of being equaled or exceeded each year.

“Waste recycling" means reusing waste materials and extracting valuable materials from a waste stream.

“Waste reduction" means altering practices to reduce the amount of waste going into the waste stream.

“Waste tires" means any tires that are no longer suitable for their original intended purpose because of wear, damage or defect. Used tires, which were originally intended for use on public highways that are considered unsafe in accordance with RCW 46.37.425, are waste tires. Waste tires also include quantities of used tires that may be suitable for their original intended purpose when mixed with tires considered unsafe per RCW 46.37.425.

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

“Wood waste" means solid waste consisting of wood pieces or particles generated as a by-product or waste from the manufacturing of wood products, construction, demolition, handling and storage of raw materials, trees and stumps. This includes, but is not limited to, sawdust, chips, shavings, bark, pulp, hogged fuel, and log sort yard waste, but does not include wood pieces or particles containing paint, laminates, bonding agents or chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenate.

"Yard debris" means plant material commonly created in the course of maintaining yards and gardens and through horticulture, gardening, landscaping or similar activities. Yard debris includes, but is not limited to, grass clippings, leaves, branches, brush, weeds, flowers, roots, windfall fruit, and vegetable garden debris.

“Zone of saturation" means that part of a geologic formation in which soil pores are filled with water and the pressure of that water is equal to or greater than atmospheric pressure

APPENDIX D – ACRONYMS

BOCC – (Mason County) Board of County Commissioners

C&D – Construction and Demolition Waste

CAD – Computer aided design

CFR – Code of Federal Regulations

CESQG - Conditionally exempt small quantity generator

CPG – Coordinated Prevention Grant (Administered by Ecology)

CSWMP – Comprehensive Solid Waste Management Plan

CY – Cubic Yard

DOE – Washington State Department of Ecology (commonly referred to as Ecology)

EHD – (Mason County) Environmental Health Division

EPA – Environmental Protection Agency

EPP – Environmentally Preferable Purchasing

FEMA – Federal Emergency Management Agency

GMA – Growth Management Act

HHW – Household hazardous waste

JHD – Jurisdictional Health Department

L&I – Washington Department of Labor and Industries

LOTT – Wastewater Agency in Thurston County for Lacey, Olympia, Tumwater, and Thurston County

MCC – Mason County Code

MCSWS – Mason County Solid Waste System

MRW–Moderate Risk Waste

MSW – Municipal Solid Waste

ORCAA – Olympic Region Clean Air Authority

PCB – Polychlorinated biphenyls

PET –Polyethylene Terephthalate (common use is for beverage bottles)

RCRA – Resource Conservation and Recovery Act

RCW – Revised Code of Washington

SEPA – State Environmental Protection Act

SQG – Small quantity generator

SMM – Sustainable Materials Management

SWAC – Solid Waste Advisory Committee

SWP – Solid Waste Program

WAC – Washington Administrative Code

WFM – Washington Office of Financial Management

WSDOT – Washington State Department of Transportation

WSU – Washington State University

WUTC – Washington Utilities and Transportation Commission

APPENDIX E – UTC COST ASSESSMENT QUESTIONNAIRE

Please provide the information requested below:

PLAN PREPARED FOR THE COUNTY OF: Mason

PLAN PREPARED FOR THE CITY OF: Shelton

PREPARED BY: Bart Stepp, Deputy Director/Utilities and Waste Management, Mason County

CONTACT TELEPHONE: 360 – 427 – 9670 x652 DATE: July 5, 2017

DEFINITIONS

Please provide these definitions as used in the Solid Waste Management Plan and the Cost Assessment Questionnaire.

Throughout this document:

YR.1 shall refer to **2018.**
YR.3 shall refer to **2020.**
YR.6 shall refer to **2023.**

Year refers to **calendar** (Jan 01 - Dec 31)

1. **DEMOGRAPHICS:** To assess the generation, recycling and disposal rates of an area, it is necessary to have population data. This information is available from many sources (e.g., the State Data Book, County Business Patterns, or the State Office of Finance and Management).

1.1 Population

1.1.1 What is the **total** population of your County?

YR.1 - **65,407** YR.3 - **67,545** YR.6 - **70,176**

1.1.2 For counties, what is the population of the area **under your jurisdiction?** (Exclude cities choosing to develop their own solid waste management system.) – **Not Applicable**

YR.1 _____ YR.3 _____ YR.6 _____

1.2 References and Assumptions

2. WASTE STREAM GENERATION: The following questions ask for total tons recycled and total tons disposed. Total tons disposed are those tons disposed of at a landfill, incinerator, transfer station or any other form of disposal you may be using. If other please identify.

2.1 Tonnage Recycled

2.1.1 Please provide the total tonnage **recycled** in the base year, and projections for years three and six.

YR.1 – **3,440** YR.3 – **3,558** YR.6 – **3,697**

2.2 Tonnage Disposed

2.2.1 Please provide the total tonnage **disposed** in the base year, and projections for years three and six.

YR.1 – **35,738** YR.3 – **36,969** YR.6 – **38,408**

2.3 References and Assumptions

3. SYSTEM COMPONENT COSTS: This section asks questions specifically related to the types of programs currently in use and those recommended to be started. For each component (i.e., waste reduction, landfill, composting, etc.) please describe the anticipated costs of the program(s), the assumptions used in estimating the costs and the funding mechanisms to be used to pay for it. The heart of deriving a rate impact is to know what programs will be passed through to the collection rates, as opposed to being paid for through grants, bonds, taxes and the like.

3.1 Waste Reduction Programs – Page 21 of Plan

3.1.1 Please list the solid waste programs which have been implemented and those programs which are proposed. If these programs are defined in the SWM plan please provide the page number. (Attach additional sheets as necessary.)

IMPLEMENTED	PROPOSED
Web site links to reuse sites	Method to quantify waste reduction
Waste audits for businesses	_____
Environmentally Preferable Purchasing	

3.1.2 What are the costs, capital costs and operating costs for waste reduction programs implemented and proposed?

IMPLEMENTED

YR.1 ____$0_____ YR.3 ___$0_____ YR.6 ___$0_____

PROPOSED

YR.1 ____$0_____ YR.3 ___$0_____ YR.6 ___$0_____

3.1.3 Please describe the funding mechanism(s) that will pay the cost of the programs in 3.1.2.
Not Applicable

IMPLEMENTED

YR.1 _____ YR.3 _____ YR.6 _____

PROPOSED

YR.1 _____ YR.3 _____ YR.6 _____

3.2 Recycling Programs – Page 22 of Plan

3.2.1 Please list the proposed or implemented recycling program(s) and, their costs, and proposed funding mechanism or provide the page number in the draft plan on which it is discussed. (Attach additional sheets as necessary.)

IMPLEMENTED

PROGRAM	COST	FUNDING
Blue Box Self-Haul Program	$27,000/year	CPG Grant
County Curbside Program	$0 to County	Customer Rates
Shelton Curbside Program	$0 to County	User Rates

PROPOSED

PROGRAM	COST	FUNDING
None proposed		

3.3 Solid Waste Collection Programs – Page 14 of Plan

3.3.1 Regulated Solid Waste Collection Programs

Fill in the table below for each **WUTC regulated** solid waste collection entity in your jurisdiction. (Make additional copies of this section as necessary to record all such entities in your jurisdiction.)

WUTC Regulated Hauler Name Mason County Garbage Co. Inc.
G-permit # G-00088

	YR. 3	YR. 6
RESIDENTIAL (projected)		
- # of Customers	11,594	12,051
- Tonnage Collected	9,918	10,309
COMMERCIAL (projected)		
- # of Customers	933	970
- Tonnage Collected	10,931	11,362

3.4 Energy Recovery & Incineration (ER&I) Programs – Not Applicable
(If you have more than one facility of this type, please copy this section to report them.)

3.5 Land Disposal Program – Not Applicable
(If you have more than one facility of this type, please copy this section to report them.)

3.6 Administration Program – Page 19 of Plan

3.6.1 What is the budgeted cost for administering the solid waste and recycling programs and what are the major funding sources?

Budgeted Cost

YR.1 ___$4.3 Million YR.3 _$5.0 Million_ YR.6 _$6.0 Million__

Funding Source

YR.1 Tipping Fees and CPG_ YR.3 Fees and CPG YR.6 Fees and CPG___

3.6.2 Which cost components are included in these estimates?

MSW disposal costs, recycling, HHW system, staffing, operations and maintenance expenses, and minor capital improvements are included in these estimates.

3.6.3 Please describe the funding mechanism(s) that will recover the cost of each component.

Tipping fees and rates for Mason County support all operations. No general fund monies are used. CPG funds are used to support the recycling and HHW programs in the County.

3.7 Other Programs – Page 47 of Plan

For each program in effect or planned which does not readily fall into one of the previously described categories please answer the following questions. (Make additional copies of this section as necessary.)

3.7.1 Describe the program, or provide a page number reference to the plan.

Mason County Community Services, Environmental Health Division, provides permitting and enforcement of solid waste facilities within Mason County. This includes enforcement of illegal dumping and littering on private property (Pages 47 and 49)

3.7.2 Owner/Operator: Mason County

3.7.3 Is WUTC Regulation Involved? If so, please explain the extent of involvement in section 3.8.

3.7.4 Please estimate the anticipated costs for this program, including capital and operating expenses.

YR.1 __$75,000___ YR.3 _$80,000__ YR.6 __$90,000_____

3.7.5 Please describe the funding mechanism(s) that will recover the cost of this component.

This program is funded through the CPG Enforcement funding and permit fees associated with permitting or review of solid waste facilities.

3.8 References and Assumptions (attach additional sheets as necessary)

4. FUNDING MECHANISMS: This section relates specifically to the funding mechanisms currently in use and the ones which will be implemented to incorporate the recommended programs in the draft plan. Because the way a program is funded directly relates to the costs a resident or commercial customer will have to pay, this section is crucial to the cost assessment process. Please fill in each of the following tables as completely as possible.

Table 4.1.1 Facility Inventory (2016)

Facility Name	Type of Facility	Tip Fee per Ton	Transfer Cost**	Transfer Station Location	Final Disposal Location	Total Tons Disposed	Total Revenue Generated (Tip Fee x Tons)
Belfair Drop Box	Drop Box	$126.00	$40.34/ton	Eells Hill	Roosevelt		
Union Drop Box	Drop Box	$126.00	$29.01/ton	Eells Hill	Roosevelt		
Hoodsport Drop Box	Drop Box	$126.00	$29.01/ton	Eells Hill	Roosevelt		
Eells Hill Transfer Sta.	Transfer Station	$92.16			Roosevelt	34,572.16 (from all 4 facilities)	$3,402,083.92

Table 4.1.2 Tip Fee Components

Tip fees have not been broken out into components

Tip Fee by Facility	Surcharge	City Tax	County Tax	Transportation Cost	Operational Cost	Administration Cost	Closure Costs

Table 4.1.3 Funding Mechanism

Name of Program Funding Mechanism will defray costs	Bond Name	Total Bond Debt	Bond Rate	Bond Due Date	Grant Name	Grant Amount	Tip Fee	Taxes	Other	Surcharge
CPG Grant 2015-2017					CPG	$156,094				
CPG Grant 2017-2019					CPG	$111,000 (est.)				

Table 4.1.4 Tip Fee Forecast

Tip Fee per Ton by Facility	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
All Drop Box Stations	128.52	131.09	133.71	136.39	139.11	141.90
Eells Hill Transfer Sta.	94.00	95.88	97.80	99.76	101.75	103.79

Tip fee forecast assumes CPI adjustment of 2% every year starting in 2018.

4.2 **Funding Mechanisms** summary by percentage: In the following tables, please summarize the way programs will be funded in the key years. For each component, provide the expected percentage of the total cost met by each funding mechanism. (e.g. Waste Reduction may rely on tip fees, grants, and collection rates for funding). You would provide the estimated responsibility in the table as follows: Tip fees=10%; Grants=50%; Collection Rates=40%. The mechanisms must total 100%. If components can be classified as "other," please note the programs and their appropriate mechanisms. Provide attachments as necessary.

Table 4.2.1 Funding Mechanism by Percentage **Year One**						
Component	Tip Fee %	Grant %	Bond %	Collection Tax Rates %	Other %	Total
Waste Reduction	100					100%
Recycling	50	50				100%
Collection	100					100%
ER&I	100					100%
Transfer	100					100%
Land Disposal	100					100%
Administration	100					100%
Other	100					100%

Table 4.2.2 Funding Mechanism by Percentage **Year Three**						
Component	Tip Fee %	Grant %	Bond %	Collection Tax Rates %	Other %	Total
Waste Reduction	100					100%
Recycling	50	50				100%
Collection	100					100%
ER&I	100					100%
Transfer	100					100%
Land Disposal	100					100%
Administration	100					100%
Other	100					100%

Table 4.2.3 Funding Mechanism by Percentage **Year Six**						
Component	Tip Fee %	Grant %	Bond %	Collection Tax Rates %	Other %	Total
Waste Reduction	100					100%
Recycling	50	50				100%
Collection	100					100%
ER&I	100					100%
Transfer	100					100%
Land Disposal	100					100%
Administration	100					100%
Other	100					100%

4.3 References and Assumptions

The 2017 solid waste budget is attached to this document.

4.4 Surplus Funds

There is a solid waste reserve fund for capital improvements that has a balance of $511,000.

2017 MASON COUNTY SOLID WASTE UTILITY BUDGET

ACCOUNT	ACCOUNT DESCRIPTION	REVENUE BUDGET
402.000000.000.000.308.80.300000.0000.00.	BEGIN FUND BAL UNRESERVED	985,376.00
402.000000.000.000.334.03.324005.0000.00.	DEPT OF ECOLOGY	64,367.00
402.000000.000.000.343.70.300000.0000.00.	GARBAGE/SOLID WASTE FEES/CHGS	3,180,000.00
402.000000.000.000.361.11.300000.0000.00.	INVESTMENT INTEREST	1,250.00
402.000000.000.000.369.10.300000.0000.00.	SALE OF SCRAP AND JUNK	6,000.00
402.000000.000.000.369.81.300000.0000.00.	CASHIER'S OVERAGES AND SHORTAG	50.00
402.000000.000.000.386.00.307000.0000.03.	REFUSE TAX-SHELTON	60,000.00
402.000000.000.000.397.00.300406.0000.00.	TRANS IN FROM 406	25,276.00
	Total 402 Solid Waste Revenue	**4,322,319.00**
ACCOUNT	**ACCOUNT DESCRIPTION**	**EXPENDITURE BUDGET**
402.000000.000.000.508.80.500000.0000.00.	END FUND BAL UNRESERVED	**221,182.00**
	Total 10 SALARIES & WAGES	**607,315.00**
	Total 20 PERSONNEL BENEFITS	**335,583.00**
402.000000.000.000.537.80.531030.0000.00.	OPERATING SUPPLIES	13,000.00
402.000000.000.000.537.80.532010.0000.00.	FUEL	9,000.00
402.000000.000.000.537.80.535010.0000.00.	SMALL TOOLS & MINOR EQUIPMENT	10,000.00
402.000000.000.000.537.81.531030.0000.00.	OPERATION SUPPLIES/GIVEAWAYS/P	2,500.00
402.000000.000.000.538.10.531010.0000.00.	ADMIN SUPPLIES	2,650.00
402.000000.000.000.538.10.535010.0000.00.	SMALL TOOLS & MINOR EQUIPMENT	795.00
	Total 30 SUPPLIES	**37,945.00**
402.000000.000.000.537.80.541017.0000.00.	COUNTY WIDE WASTE-HEALTH DEPT	48,000.00
402.000000.000.000.537.80.541040.0000.00.	GROUNDWATER MONITOR/CONSULT	0.00
402.000000.000.000.537.80.541070.0000.00.	MISC CONTRACTED PROF SVCS	25,000.00
402.000000.000.000.537.80.541080.0000.00.	ADVERTISING	1,500.00
402.000000.000.000.537.80.542010.0000.00.	PHONES	3,000.00
402.000000.000.000.537.80.543010.0000.00.	TRAVEL	750.00
402.000000.000.000.537.80.545020.0000.00.	OPERATING RENTALS AND LEASES	22,000.00
402.000000.000.000.537.80.546010.0000.00.	INSURANCE	20,000.00
402.000000.000.000.537.80.547010.0000.00.	UTILITIES	10,000.00
402.000000.000.000.537.80.547030.0000.00.	MISC DISPOSAL (LEACHATE, TIRES	10,000.00
402.000000.000.000.537.80.547040.0000.00.	LONGHAUL SOLID WASTE DISPOSAL	1,800,000.00
402.000000.000.000.537.80.548020.0000.00.	REPAIRS AND MAINT/STRUT & EQUI	45,000.00
402.000000.000.000.537.80.549010.0000.00.	SCALE PERMIT RENEWAL	500.00
402.000000.000.000.537.80.549020.0000.00.	SOLID WASTE DROP BOX CONTRACT	40,000.00
402.000000.000.000.537.81.541010.0000.00.	HHW DISPOSAL	30,000.00
402.000000.000.000.537.81.541020.0000.00.	ADVERTISING	500.00
402.000000.000.000.537.81.541050.0000.00.	SCALE INSPECTION SERVICES	5,000.00

ACCOUNT	ACCOUNT DESCRIPTION	EXPENDITURE BUDGET
402.000000.000.000.537.81.543010.0000.00.	TRAVEL	500.00
402.000000.000.000.537.81.549010.0000.00.	DUES/REGISTRATION/MEMBERSHIPS	1,000.00
402.000000.000.000.537.81.549020.0000.00.	PRINTING/BINDING/SIGNAGE	1,200.00
402.000000.000.000.537.81.549050.0000.00.	RECYCLE DROP BOX CONTRACT	111,065.00
402.000000.000.000.538.10.541030.0000.00.	ADVERTISING	265.00
402.000000.000.000.538.10.541040.0000.00.	PROFESSIONAL SERVICES	1,961.00
402.000000.000.000.538.10.542010.0000.00.	TELEPHONES/COMMUNICATIONS	3,975.00
402.000000.000.000.538.10.542020.0000.00.	POSTAGE/SHIPPING	7,420.00
402.000000.000.000.538.10.543010.0000.00.	TRAVEL/MILEAGE	1,153.00
402.000000.000.000.538.10.545010.0000.00.	ADMIN RENTALS & LEASES	1,590.00
402.000000.000.000.538.10.546010.0000.00.	INSURANCE	5,035.00
402.000000.000.000.538.10.548010.0000.00.	REPAIRS & MAINTENANCE	530.00
402.000000.000.000.538.10.549010.0000.00.	DUES/TRAINING	1,709.00
	Total 40 SERVICES	**2,198,653.00**
402.000000.000.000.537.10.553010.0000.00.	EXCISE TAX	60,000.00
402.000000.000.000.537.80.551010.0000.00.	PERMIT FEES	2,000.00
402.000000.000.000.537.80.551030.0000.00.	STATE AUDIT CHARGES	3,369.00
402.000000.000.000.537.81.551010.0000.00.	KITSAP HHW CONTRACT	52,350.00
402.000000.000.000.538.10.551010.0000.00.	STATE AUDIT CHARGES	3,489.00
	Total 50 INTERGOVERNMENTAL	**121,208.00**
402.000000.000.000.594.37.563031.0000.00.	MINOR FACILITY IMPROV SW-04-00	423,000.00
	Total 60 CAPITAL OUTLAYS	**423,000.00**
402.000000.000.000.537.80.531093.0000.00.	INTERFUND SUPPLIES	2,500.00
402.000000.000.000.537.80.541019.0000.00.	INDIRECT COSTS	65,981.00
402.000000.000.000.537.80.541501.0000.00.	RESERVE FOR TECHNOLOGY	2,850.00
402.000000.000.000.537.80.545951.0000.00.	ER&R VEHICLES	254,791.00
402.000000.000.000.537.80.546096.0000.00.	UNEMPLOYMENT	2,000.00
402.000000.000.000.537.80.548098.0000.00.	INTERFUND REPAIRS/MAINT	6,000.00
402.000000.000.000.538.10.531093.0000.00.	INTERFUND SUPPLIES	530.00
402.000000.000.000.538.10.541019.0000.00.	INDIRECT COSTS	29,283.00
402.000000.000.000.538.10.541501.0000.00.	RESERVE FOR TECHNOLOGY	733.00
402.000000.000.000.538.10.542092.0000.00.	IT PHONES	1,173.00
402.000000.000.000.538.10.545952.0000.00.	IT COMPUTERS	9,160.00
402.000000.000.000.538.10.545953.0000.00.	BUILDING RENTAL	1,918.00
402.000000.000.000.538.10.546096.0000.00.	UNEMPLOYMENT ALLOCATION	514.00
	Total 90 INTERNAL SERVICES	**377,433.00**
	Total 402 Solid Waste Expenditures	**4,322,319.00**

APPENDIX F – SEPA CHECKLIST

SEPA Environmental Checklist: *Non-Project*

Mason County Permit Center Use:

SEP _____ - _____

Date Rcvd:

- ❑ Single Family DNS: $385
- ❑ Other DNS: 0 to 9.99 acres: $630
  10 to 20 acres: $755
  Over 20 acres: $945
- ❑ DS / EIS: $2,525 + 70 Per hr

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

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

***Instructions for applicants*:**

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

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

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

Use of checklist for nonproject proposals: [help]

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

A. Background [help]

1. Name of proposed project, if applicable: [help]
   Mason County Comprehensive Solid Waste Management Plan

2. Name of applicant: [help]
   Mason County Public Works

3. Address and phone number of applicant and contact person: [help]
   Mason County Public Works
   100 W. Public Works Drive

   Shelton, WA 98584

   Attn: Bart Stepp, PE, Deputy Director/Utilities & Waste Management

   (360) 427-9670 x652

4. Date checklist prepared: [help]
   07/21/17

5. Agency requesting checklist: [help]
   Washington Department of Ecology

6. Proposed timing or schedule (including phasing, if applicable): [help]
   July 2017 – Submit SEPA to Mason County Community Development for approval
   August/September 2017 – BOCC public hearing on plan and SEPA DNS issuance

   September 2017 – Submit plan to Ecology

   December 2017 – Received Ecology and WUTC comments on plan

   February 2018 – Respond to and incorporate Ecology and WUTC comments into plan

   March 2018 – Adoption of plan by County and City of Shelton

   April 2018 – Submit adopted plan to Ecology for 45 day review.

   June 2018 – Plan approved by Ecology

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [help]
   This SEPA covers the County's Comprehensive Solid Waste Management Plan (CSWMP). It provides recommendations for future operations of the County's Solid Waste System and identifies capital improvements needed within the Solid Waste system. This plan identifies improvements needed at the existing Eells Hill transfer station and rural drop box stations to maintain adequate facilities and improve safety issues at the facilities. As a non-project SEPA, most of the questions in the application do not apply and are answered Not Applicable.

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

Not Applicable

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. [help]

No

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

The Department of Ecology will approve the CSWMP. The Department of Ecology requires the County to complete the SEPA process and to adopt the plan before Ecology will approve the plan. Approval of the CSWMP by Ecology will make the County eligible for some funding opportunities at the state level.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) [help]

The CSWMP identified the existing conditions of the County Solid Waste system and provides recommendations on improvements in facilities and operations. It also provides goals and objectives of the solid waste system. This proposal is just for the CSWMP. Any infrastructure improvements identified in the CSWMP would go through their own permitting process when they are implemented. Identified infrastructure improvements are focused on the existing transfer station and drop box facilities.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. [help]

The CSWMP is a county wide planning document. It not only identifies improvements at County Solid Waste Facilities, but discusses permitting of private facilities throughout the County and enforcement illegal dumping sites.

B. ENVIRONMENTAL ELEMENTS [help]

1. Earth [help]

a. General description of the site: [help]

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other **All – County Wide Proposal**

b. What is the steepest slope on the site (approximate percent slope)? [help]
Not Applicable

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [help]
Not Applicable

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

Not Applicable

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [help]
Not Applicable

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [help]
NOT APPLICABLE

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [help]
NOT APPLICABLE

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [help]
NOT APPLICABLE

2. Air [help]

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. [help]
NOT APPLICABLE

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [help]
NOT APPLICABLE

c. Proposed measures to reduce or control emissions or other impacts to air, if any: [help]
NOT APPLICABLE

3. **Water** [help]

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. [help]
NOT APPLICABLE

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. [help]
NOT APPLICABLE

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. [help]
NOT APPLICABLE

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [help]
No

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [help]
NOT APPLICABLE

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. [help]
NOT APPLICABLE

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. [help]
NOT APPLICABLE

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. [help]
NOT APPLICABLE

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. [help]
NOT APPLICABLE

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

NOT APPLICABLE

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

NOT APPLICABLE

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

None

4. **Plants** [help]

a. Check the types of vegetation found on the site: [help]

___deciduous tree: alder, maple, aspen, other
___evergreen tree: fir, cedar, pine, other
___shrubs
___grass
___pasture
___crop or grain
___ Orchards, vineyards or other permanent crops.
___ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
___water plants: water lily, eelgrass, milfoil, other
____other types of vegetation

b. What kind and amount of vegetation will be removed or altered? [help]

NOT APPLICABLE

c. List threatened and endangered species known to be on or near the site. [help]

NOT APPLICABLE

d. Proposed landscaping, use of Native plants, or other measures to preserve or enhance vegetation on the site, if any: [help]

Not Applicable

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

Not Applicable

5. **Animals** [help]

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. [help]

Examples include:

birds: hawk, heron, eagle, songbirds, other:
mammals: deer, bear, elk, beaver, other:

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

b. List any threatened and endangered species known to be on or near the site. [help]
NOT APPLICABLE

c. Is the site part of a migration route? If so, explain. [help]
The County is part of the Pacific Flyway.

d. Proposed measures to preserve or enhance wildlife, if any: [help]
None

e. List any invasive animal species known to be on or near the site. [help]
NOT APPLICABLE

6. **Energy and Natural Resources** [help]

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. [help]
NOT APPLICABLE

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. [help]
No

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: [help]
NOT APPLICABLE

7. **Environmental Health** [help]

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. [help]
A Household Hazardous Waste (HHW) Plan is part of the CSWMP. The County solid waste facilities accept some types of HHW for free. By accepting HHW Mason County reduces the amount of HHW that might be illegally dumped in the County. The HHW received by the County is sent to hazardous waste disposal facilities for proper disposal.

1) Describe any known or possible contamination at the site from present or past uses.
[help]
None known

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity. [help]
NOT APPLICABLE

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project. [help]
Household hazardous waste is stored at County Solid Waste Facilities.

4) Describe special emergency services that might be required. [help]
NOT APPLICABLE

5) Proposed measures to reduce or control environmental health hazards, if any: [help]
NOT APPLICABLE

b. Noise [help]

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [help]
NOT APPLICABLE

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. [help]
NOT APPLICABLE

3) Proposed measures to reduce or control noise impacts, if any: [help]
NOT APPLICABLE

8. **Land and Shoreline Use** [help]

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [help]
NOT APPLICABLE

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [help]
NOT APPLICABLE

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how: [help]
NOT APPLICABLE

c. Describe any structures on the site. [help]
NOT APPLICABLE

d. Will any structures be demolished? If so, what? [help]
NOT APPLICABLE

e. What is the current zoning classification of the site? [help]

NOT APPLICABLE

f. What is the current comprehensive plan designation of the site? [help]

NOT APPLICABLE

g. If applicable, what is the current shoreline master program designation of the site? [help]

NOT APPLICABLE

h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [help]

NOT APPLICABLE

i. Approximately how many people would reside or work in the completed project? [help]

NOT APPLICABLE

j. Approximately how many people would the completed project displace? [help]

Zero

k. Proposed measures to avoid or reduce displacement impacts, if any: [help]

None needed

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [help]

NOT APPLICABLE

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any: [help]

NOT APPLICABLE

9. **Housing** [help]

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [help]

Zero

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [help]

Zero

c. Proposed measures to reduce or control housing impacts, if any: [help]

None needed

10. **Aesthetics** [help]

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [help]

NOT APPLICABLE

b. What views in the immediate vicinity would be altered or obstructed? [help]
NOT APPLICABLE

b. Proposed measures to reduce or control aesthetic impacts, if any: [help]
NOT APPLICABLE

11. **Light and Glare** [help]

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [help]
NOT APPLICABLE

b. Could light or glare from the finished project be a safety hazard or interfere with views? [help]
NOT APPLICABLE

c. What existing off-site sources of light or glare may affect your proposal? [help]
None

d. Proposed measures to reduce or control light and glare impacts, if any: [help]
None

12. **Recreation** [help]

a. What designated and informal recreational opportunities are in the immediate vicinity? [help]
NOT APPLICABLE

b. Would the proposed project displace any existing recreational uses? If so, describe. [help]
No

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [help]
None

13. **Historic and cultural preservation** [help]

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers ? If so, specifically describe. [help]
NOT APPLICABLE

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [help]
NOT APPLICABLE

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [help]

NOT APPLICABLE

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required. [help]

NOT APPLICABLE

14. **Transportation** [help]

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [help]

NOT APPLICABLE

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [help]

NOT APPLICABLE

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [help]

This proposal would not create or destroy any parking spaces.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [help]

The proposal would not require any improvements to transportation facilities.

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [help]

NOT APPLICABLE

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? [help]

NOT APPLICABLE

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe. [help]

NOT APPLICABLE

h. Proposed measures to reduce or control transportation impacts, if any: [help]

None needed.

15. **Public Services** [help]

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. [help]

No

b. Proposed measures to reduce or control direct impacts on public services, if any. [help]

None needed

16. **Utilities** [help]

a. Circle utilities currently available at the site: [help]
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other **NOT APPLICABLE**

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. [help]

NOT APPLICABLE

C. Signature [help]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Bart Stepp

Name of signee Bart Stepp

Position and Agency/Organization Deputy Director/Utilities and Waste Management for Mason County Public Works

Date Submitted: 7/24/17

D. supplemental sheet for nonproject actions [help]

(**IT IS NOT NECESSARY** to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction
with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Improvements to solid waste facilities that increase their capacity would lead to an increase of emissions or storage, production of noise, or storage of hazardous substances. This would be due to increased use by the public but this is expected over the next 20 years due to an increase in County population.

Proposed measures to avoid or reduce such increases are:

All facility improvements will be designed to comply with all State and County regulations. Specific projects will go through their own SEPA approval as part of the County Site Plan Approval process. The treatment and storage of stormwater runoff will comply with the Western Washington Manual for Stormwater by the Department of Ecology.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Improving the Solid Waste Facilities should better protect natural resources by improving the receiving and hauling of waste from the County. The CSWMP does not propose any new solid waste facility sites, only improvements on existing sites. The identified solid waste facility improvements would improve protections of land and groundwater so they should not affect plants, animals, fish, or marine life.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

Comply with Department of Ecology regulations and County Site Plan Approval requirements for all facility improvements identified in the CSWMP.

3. How would the proposal be likely to deplete energy or natural resources?

The CSWMP does not deplete energy or natural resources. Improvements identified in the CSWMP that are completed should reduce the degradation of natural resources.

Proposed measures to protect or conserve energy and natural resources are:

Infrastructure improvements in the CSWMP will be energy efficient.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

   All of the improvements identified in the CSWMP are located within existing facilities that are already permitted for solid waste use. The CSWMP also discusses cleaning up of illegal dump sites. The cleaning up of these dump sites could improve environmentally sensitive areas.

   Proposed measures to protect such resources or to avoid or reduce impacts are:

   All proposed improvements would be outside of sensitive areas. Cleanup of dump sites in sensitive areas would help protect the resource.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

   None of the proposed improvements in the CSWMP are within any shorelines and the existing facilities are located outside shoreline areas.

   Proposed measures to avoid or reduce shoreline and land use impacts are:

   Cleaning up illegal dump sites in shoreline areas well reduce shoreline impacts.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

   The improvements identified in the CSWMP would not increase transportation demands. Traffic is expected to increase to Solid Waste Facilities as the population grows. The improvements proposed in the CSWMP would assist the County in serving the growing population but the improvements would not create additional traffic.

   Proposed measures to reduce or respond to such demand(s) are:

   None

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

   This proposal does not conflict with local, state, or federal laws. The County is required to have a CSWMP by state law. The CSWMP assists in protecting the environment by setting goals and objectives to improve solid waste facilities and identifying specific projects needed to improve the facilities.

RESOLUTION NO. 892-0506

A RESOLUTION OF THE CITY OF SHELTON, WASHINGTON AUTHORIZING MASON COUNTY TO INCLUDE THE CITY OF SHELTON IN THE MASON COUNTY COMPREHENSIVE SOLID WASTE MANANGEMENT PLAN.

WHEREAS, under the provisions of RCW Chapter 70.95, Mason County is responsible for preparation, adoption, and implementation of a comprehensive solid waste management plan, and

WHEREAS, under the provisions of RCW 70.95 the comprehensive solid waste management plan must be maintained in current and applicable condition through periodic review and revision, and

WHEREAS, the existing Mason County Comprehensive Solid Waste Management Plan is dated October 1998 and requires a complete revision, and

WHEREAS, under the provisions of RCW 70.95.080 the City of Shelton chooses to authorize the County to include the City's plans for solid waste management in the Mason County Comprehensive Solid Waste Management Plan;

NOW, THEREFORE BE IT RESOLVED, by the City Commission of the City of Shelton, Washington, as follows:

Pursuant to RCW 70.95.080, Mason County is hereby authorized to include the City of Shelton in its preparation of a comprehensive solid waste management plan.

INTRODUCED AND PASSED by the City Commission of the City of Shelton on this 19 day of June, 2006.

ATTEST:

Mayor Tarrant

City Clerk Look

Commissioner Taylor

APPROVED AS TO FORM:

Commissioner Pannell

City Attorney Harksen

MASON COUNTY
DEPARTMENT OF PUBLIC WORKS
100 W Public Works Dr, Shelton, WA 98584
(360)427-9670

DETERMINATION OF NONSIGNIFICANCE
(WAC 197-11-340)

SEP2017-00044

Description of Proposal: COUNTY WIDE: MASON COUNTY 2017 COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

Proponent: MASON COUNTY PUBLIC WORKS
Location of Proposal: 100 W PUBLIC WORKS DR SHELTON
Parcel Number: 420021000010
Legal Description: PCL 2 OF BLA #06-72 PTN OF W1/2 NE
Directions to Site:

Lead Agency: Mason County

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

Please contact Paula Reeves at ext. 360-427-9670x286 with any questions. This MDNS is issued under WAC 197-11-340(2). The Lead Agency will not act on this proposal for 14 days from the date shown below, when the determination is final. Comments must be submitted to Dept. of Public Works,100 W Public Works DR, Shelton WA 98584 by 8/31/2017. Appeal of this determination must be filed within a 14-day period following this final determination date, per Mason County Code Chapter 15.11 Appeals.

Paula Reeves — 8-31-17

Authorized Local Government Official — Date

From: Paula Reeves
To: Stepp, Bart
Date: 9/18/2017 12:10 PM
Subject: Re: SEP2017-00044_MC Solid Waste Plan

No - none. Thanks.

Paula Reeves, AICP CTP
Mason County Planning Manager
615 W Alder Street, Building #8
Shelton, WA 98584
P: 360-427-9670 x286
E: PReeves@co.mason.wa.us

>>> Bart Stepp 9/15/2017 3:06 PM >>>
Did Community Services receive any comments on the Comprehensive Solid Waste Management Plan during the SEPA comment period which closed 9/13/17?

Thanks,

Bart

Bart Stepp, PE
Mason County
Deputy Director Public Works - Utilities and Waste Division
100 Public Works Drive
Shelton, WA 98584
(360) 427-9670 x652
BStepp@co.mason.wa.us

>>> Marissa Watson 8/31/2017 12:54 PM >>>
Please use the Mason County ftp site to access applicant's SEPA and related documents.

ftp://216.235.103.242
User Name: DCD

Password: 1Plan*ning!

Find the directory named **"Mason County 2017 Comprehensive Solid Waste Management Plan"**, 2 pdf. files are within.

Please access these files soon as you receive this email. If you are unable to open files, please let us know in a timely manner. Site may not be accessible on hand held devices.

Thank you,

Marissa L. Watson
Community Services - Planning Clerical
615 W Alder St.
Shelton, Wa 98584
360.427.9670 ext. 367 Email: mwatson@co.mason.wa.us

8/28/17 CSWMP PAC MEETING NOTES

INTRODUCTION

On August 28, 2017 I gave a short presentation to the Mason County Planning Advisory Commission (PAC) about the draft Comprehensive Solid Waste Management Plan. I then answered questions from the PAC about the Plan and how to comment. I indicated if they provided comments within the next couple of weeks that would fit within my timeline for submitting to the Department of Ecology.

SWAC MEMBERS AT MEETING

Cheryl Williams and Delroy Cox.

FEEDBACK AT MEETING

Beyond their questions about the solid waste system and the plan a few comments came up.

GLASS RECYCLING WITHIN THE COUNTY

One commissioner asked about Mason County Garbage providing glass recycling service within the County and not just the City. Delroy Cox with the SWAC and I explained that the curbside service with Mason County Garbage is regulated by the UTC and not the County. The recycling contract we have with Mason County Garbage is for the Blue Box Recycling at our stations, not curbside service. In addition the glass Mason County Garbage collects does not come to the County so we have no role as a County in regulating what they do with it.

LITTER CONTROL ON ROADSIDES

One commissioner asked what role Solid Waste plays in roadside litter control. I explained that the Sheriff does apply for litter grants that pay for roadside cleanup. Environmental Health also does enforcement of dump sites with assistance from the Sheriff. The commissioner expressed interest in this becoming a part of the solid waste program by charging a fee for users of the station to pay for it. I told her that is something that has not been done in the past and is not typical of other solid waste systems but that it might be possible that it could be done.

FOOD COMPOSTING

One commissioner asked about starting a food composting program. This is discussed in the plan but I told her it is a very labor intensive program. Delroy Cox also mentioned that he felt in order for that type of program to work it needs to be regional with multiple counties to make it work.

Sincerely,

Bart Stepp

Bart Stepp, PE
Deputy Director/Utilities and Waste Management

Mason County Comprehensive Solid Waste Plan

8/28/17 MASON COUNTY PLANING ADVISORY COMMISSION

SHELTON, WA

BART STEPP, PE, DEPUTY DIRECTOR

County System Basics

- Mason County owns and operates the Eells Hill Transfer Station and rural drop box stations at Belfair, Union, and Hoodsport.
- Mason County provides solid waste, recycling, and household hazardous (HHW) services.
- Mason County Garbage provides curbside services throughout the County and City of Shelton. Mason County Garbage is a private company and is the only certificated hauler in Mason County.
- Republic Services disposes of solid waste Mason County collects at their Roosevelt Landfill in Klickitat County in Eastern Washington.

Consolidated Solid Waste Management Plan Basics

- An approved CSWMP is required by the State (Department of Ecology is the approval agency).
- An approved CSWMP makes County eligible for state funding (CPG and Public Works Trust Fund).
- Mason County and the City of Shelton need to approve it in addition to the Department of Ecology and UTC for the plan to be approved.
- Plan supposed to identify needs of the solid waste system and how the system will grow over the next 20 years.
- Solid Waste Advisory Committee (SWAC) and County Staff have been working on the new plan for 2 years.

Capital Needs Priorities

- Repair tipping floor, waste chute, and transfer station building drainage system. These repairs are currently under design by a consultant.
- Improve Household Hazardous Waste (HHW) facilities to meet code related requirements.
- Improve capacity of Eells Hill Transfer Station.
- General maintenance at drop box stations.
- A secondary access at Eells Hill for recycling only would improve service at the transfer station.

Financial

- 2017 tipping fee of $93.45/TON
- Revenues from tipping fees and CPG (Coordinated Prevention Grant) funding pays for operation and maintenance of system. No current expense funds are used.
- Annual O&M Budget of $3.5 Million in 2017.
- The landfill reserve fund (~$500,000) is intended solely for activities related to the landfill closure.
- Improvements in 2017 and 2018 will be paid solely through solid waste revenues.
- No CPG funding is budgeted for 2018 due to a lack of a state capital budget.

Operational Status

- Currently staffed with 4 full time operators, 4 full time booth attendants, 2 extra help attendants, and a solid waste manager.
- Long haul contract with Republic Services and recycling contract with Mason County Garbage expires in August of 2020.
- The CSWMP recommends the County evaluate the potential for privatization of the utility prior to the expiration of the long haul contract.
- If a private company took over operations they would upgrade or build a new transfer station at Eells Hill.

9/05/17 BOCC PUBLIC HEARING NOTES

INTRODUCTION

On September 5, 2017 I gave a short presentation to the Mason County Board of County Commissioners (BOCC) about the draft Comprehensive Solid Waste Management Plan. The public was then invited to make comments on the Plan to the BOCC. No comments were made by the public or the BOCC.

The Plan will be presented to the board again after Ecology has reviewed and provided comments and the SWAC has addressed Ecology's comments into the Plan.

SWAC MEMBERS AT MEETING

Cheryl Williams, Delroy Cox, and Rik Fredrickson.

Sincerely,

Bart Stepp

Bart Stepp, PE
Deputy Director/Utilities and Waste Management

NOTICE OF HEARING

NOTICE IS HEREBY GIVEN that the Board of Mason County Commissioners will hold a public hearing at the Mason County Courthouse Building I, Commission Chambers, 411 North Fifth Street, Shelton, WA 98584 on Tuesday, September 5, 2017 at 9:30am.

SAID HEARING will be to present and take public comments on the draft 2017 Mason County Comprehensive Solid Waste Management Plan (CSWMP), requirements of RCW 70.95 and the Washington Department of Ecology. This is a complete revision of, and supersedes, the Mason County Solid Waste Management Plan 2006 and its 2011 Addendum. The hearing is not to approve, just to take in public comment; another hearing will be set at a later date for the adoption o the plan.

Copies of the plans are available on the County website at: www.co.mason.wa.us on the Utilities Waste Management Solid Waste homepage under "News and Links".

If special accommodations are needed, please contact the Commissioners' office, (360) 427-9670 (Shelton), (360) 482-5269 (Elma) or (360) 275-4467 (Belfair), Ext. 419 or any questions contact Bart Stepp, 360-427-9670, Ext. 652.

DATED this 15th day of August, 2017.

DEPARTMENT OF PUBLIC WORKS
MASON COUNTY, WASHINGTON

_____
Melissa Drewry, Clerk of the Board

Cc: Auditor
Clerk of the Board
Public Works
Applicant
Journal - Publ 2t: 8/24/17 & 8/31/17 (not less than 5 days prior to hearing)
Post: 3 public places 15 days before hearing – No later than August 28, 2017
(Bill Public Works – 100 W Public Works, Shelton, WA 98584)

MASON COUNTY
PUBLIC WORKS DIRECTOR/COUNTY ENGINEER
SHELTON, WASHINGTON

INTER-DEPARTMENTAL COMMUNICATION

August 17, 2017

TO: BART STEPP, DEPUTY DIRECTOR/ U&W MANAGER

FROM: KELLE MEDCALF, OFFICE MANAGER

SUBJ: County Comprehensive Solid Waste Management Plan CSWMP-- Notice Posting

Attached is a Notice of Hearing to present the draft 2017 CSWMP and take public comments. The hearing is not to approve, just take public comment.

Please post the attached laminated "Notice of hearing" copies in three (3) public places before August 28, 2017, 2017 and return the IDC with the bottom information completed.

Thank you,

Kelle Medcalf
Office Manager

I, BART STEPP, do hereby certify that I posted copies of the attached

in 3 public places (as shown below) on AUGUST 23, 2017.

1 at EELLS HILL TRANSFER STATION - 501 W. EELLS HILL RD, SHELTON

1 at BELFAIR DROP BOX STATION - 1611 NE SAND HILL RD, BELFAIR,

1 at UNION DROP BOX STATION 1341 E. MURAUK RD. UNION, WA

Signature: Bart Stepp

MASON COUNTY
BRIEFING ITEM SUMMARY FORM

TO: BOARD OF MASON COUNTY COMMISSIONERS	
FROM: Bart Stepp, Deputy Director/ Utilities and Waste Management	
DEPARTMENT: Public Works	**EXT:** 652
BRIEFING DATE: August 7, 2017	

ITEM: **Set Hearing: Comprehensive Solid Waste Management Plan**

EXECUTIVE SUMMARY: Since 2015 the Solid Waste Advisory Committee for the County has been working on a revision of the Comprehensive Solid Waste Management Plan (CSWMP). Mason County is required to have a CSWMP under RCW 70.95.080.

The approval process of the CSWMP requires several steps. This includes SEPA determination, holding a public hearing, review by state agencies and implementation of their comments, approval by County and the City of Shelton, and then final approval by Ecology. The CSWMP was submitted to the Department of Community Development for SEPA review on July 24, 2017. I will also be briefing the Planning Commission on the CSWMP on August 28th and incorporating their comments.

This briefing is to provide the initial presentation of the CSWMP to the Board and to schedule a public hearing on the CSWMP to receive comments. The Board would not approve the CSWMP after the hearing, just take in comments. After the CSWMP is reviewed by Ecology and all public comments are incorporated into it then the CSWMP would come back to the Board for approval. That will probably be in early 2018.

Cost Impact to the County: This Plan was completed by the SWAC with the help of County Staff using existing resources except for the Capital Investment Needs report (Appendix A of the CSWMP) which was completed by a consultant in 2016.

RECOMMENDED OR REQUESTED ACTION: Recommend the Board of Commissioners set a public hearing on September 5th to take public comment on the Comprehensive Solid Waste Management Plan.

Attachment

- 2017 Comprehensive Solid Waste Management Plan
- Notice