

SAN JUAN COUNTY

Revised

**Solid Waste and Moderate-Risk Waste
Management Plan**

Draft Final Document

Prepared for

**San Juan County
and
Town of Friday Harbor**

Prepared by



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(add page numbers after final review)

ACRONYMS AND ABBREVIATIONS

C&D	Construction and Demolition Debris
CESQG	Conditionally Exempt Small Quantity Generators
CFL	Compact fluorescent bulb
CIP	Capital Improvement Program
County	San Juan County
CPG	Coordinated Prevention Grant
Ecology	Washington State Department of Ecology
ECY SWM	Ecology Solid Waste Management
EPA	US Environmental Protection Agency
E-Waste	Electronics Waste
FHMC	Friday Harbor Municipal Code
GMA	Growth Management Act
HAZWOPER	Hazardous Waste Operations and Emergency Response
HHW	Household Hazardous Waste
LS&G	Lopez Sand & Gravel
LSWDD	Lopez Solid Waste Disposal District
LSWEG	Local Solid Waste Enforcement Grant
MRF	Materials Recovery Facility
MRW	Moderate-Risk Wastes
MSW	Municipal Solid Waste
MTCA	Model Toxics Control Act, WAC 173-340
NPDES	National Pollutant Discharge Elimination System
OFM	Office of Financial Management
OPALCO	Orcas Power & Light Cooperative
ORRCO	Oil Re-Refining Company
ORS	Orcas Recycling Services
Plan	Solid Waste and Moderate-Risk Waste Management Plan
RBRC	Rechargeable Battery Recycling Corporation
RCRA	Resource Conservation and Recovery Act

RCW	Revised Code of Washington
SHWM	Solid and Hazardous Waste Management Plan
SEPA	State Environmental Policy Act
SJC	San Juan County
SJCC	San Juan County Code
SJS	San Juan Sanitation Company
SQG	Small Quantity Generator
SWAC	Solid Waste Advisory Committee
SWMP	Solid Waste Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TIOLI	Take It or Leave It
TOFH	Town of Friday Harbor
TREE	Technical Resources for Engineering Efficiency
UGA	Urban Growth Area
WAC	Washington Administrative Code
WDOT	Washington Department of Transportation
WISHA	Washington Industrial Safety and Health Act
WUTC	Washington Utilities and Transportation Commission
WSU	Washington State University

TYPES OF PLASTICS FOR RECYCLING

PET	Polyethylene Terephthalate (i.e., plastic #1)
HDPE	High Density Polyethylene (i.e., plastic #2)
PVC	Polyvinyl Chloride (i.e., plastic #3)
LDPE	Low Density Polyethylene (i.e., plastic #4)
PP	Polypropylene (i.e., plastic #5)
PS	Polystyrene (i.e., plastic #6)
PC	Polycarbonate and other plastics (i.e., plastic #7)

PREFACE

The 2018 San Juan County comprehensive Solid Waste and Moderate-Risk Waste Management Plan is intended to serve two primary functions. One is to provide information to the public regarding the current solid waste and moderate-risk waste management system. The second function is to establish the basis for implementing any new or revised waste management systems that may serve the County's needs in the upcoming six-year period from 2018 to 2023. The Plan must be reviewed and amended in 2022 and the County must continue to have a locally adopted and state-approved plan in place to legally implement its solid waste and moderate-risk waste system.

This final Solid Waste and Moderate-Risk Waste Management Plan, which has been reviewed by state agencies and modified in accordance with their recommendations, was approved by the County and Town Councils on _____ and _____, and transmitted to the Washington State Department of Ecology for their final approval.

The Final Plan is also available online at _____. This revised document was developed with the guidance of the San Juan County Solid Waste Advisory Committee whose participation is gratefully acknowledged. Committee members and their affiliation are identified below.

San Juan County Solid Waste Advisory Committee		
	Member	Affiliation
1	Troy Lautenbach	Lautenbach Industries (San Juan transfer station)
2	Pete Moe	Orcas Recycling Services (Orcas transfer station)
3	David Zapalac	Lopez Solid Waste Disposal District (Lopez drop box)
4	Calvin Den Hartog	San Juan Sanitation (Certificated hauler)
5	Paul Andersson	Orcas Island Resident
6	Ken Crawbuck	San Juan Island Resident
7	Clark Johnson	Lopez Island Resident
8	Jason Linnes	Island Market (Business-at-Large)
9	Steve Hushebeck	Town of Friday Harbor
10	Bill Watson	Elected County Council Member
11	Linda Lyshall	San Juan Conservation District (Agricultural)
	Mark Herrenkohl (Staff Liaison)	San Juan County Solid Waste Program
	Diana Wadley	Washington Dept. of Ecology (ex-officio)
	Kendra Smith	San Juan County Environmental Resources Manager

EXECUTIVE SUMMARY

INTRODUCTION

Solid waste planning is founded on the state and local governments' responsibility to protect public health and the environment. The purpose of comprehensive solid waste management planning is to describe, establish, and improve the systems that ensure garbage and recyclable materials are collected and taken to approved facilities for safe disposal or for processing to recover useful materials.

Consideration of alternative means of healthy and efficient systems for handling solid waste is essential in the course of developing a solid waste management plan. Once an approach has been chosen, the next step is to consider policies, strategies, and actions that will make that system function as intended. For all counties in Washington, State regulations (Chapter 70.95 Revised Code of Washington) set a 6-year planning cycle to implement goals and a 20-year timeline for longer-term goals. Further, State law requires each county to operate in accordance with its adopted solid waste management plan, and that plan must be updated every 5 years.

State and local regulatory agencies will review solid waste systems and facilities for consistency with the local plan before issuing solid waste-related permits. Programs, such as training or equipment for recycling or composting, must be identified in the plan to qualify for grant funding or other financial assistance from government agencies. Solid waste collection businesses, which are regulated by the Washington Utilities and Transportation Commission, are required to comply with solid waste management plans and any local ordinances and code intended to implement them.

The last solid waste and hazardous waste management plan adopted by San Juan County was in 2012. At that time, the County examined three alternatives for collection, transport, and management of County solid waste facilities and was in the process of transitioning to the new system. Since 2012, the County solid waste facilities have been managed through public-private partnerships and there has been an increase in curbside level of service for garbage and recyclables by the County's certificated hauler.

This revised plan is to provide guidance for solid waste and moderate-risk waste programs in San Juan County for the period of 2018 through 2023. The 2018 Plan replaces the previous plan, the "2012 San Juan County Solid Waste and Hazardous Waste Management Plan". The Town of Friday Harbor has elected to participate with the County on this revised Plan, which replaces the Town's previous plan, the "2014 Town of Friday Harbor Solid & Moderate Risk Waste Management Plan".

OVERALL GOALS OF PLAN

The overall goals of the County’s revised waste management plan have been developed with consideration of the goals from the State’s 2015 *Moving Washington Beyond Waste and Toxics Plan* and include:

- Establish and continue to improve goals for waste reduction, reuse, and recycling (especially those relating to organic materials) that are based on economic, environmental and human health criteria; and
- Develop, promote and manage programs that are effective at managing local waste streams, meet the needs of residents, and reduce the volume and toxicity of waste.

San Juan County also intends to:

- Identify public and private land suitable for community compost operations and assist community composting feasibility planning;
- Encourage buying habits that avoid products with toxic ingredients and that use excessive packaging including plastics;
- Support programs that reduce the volume of waste transported off the islands and promote reuse as the first and best alternative to discarding any item;
- Facilitate publicly available reuse operations such as those at the Orcas Island “Exchange” and Lopez Island “Take It or Leave It”;
- Ensure a reliable and sustainable system for collection of garbage and recyclables;
- Provide and maintain collection opportunities for moderate-risk wastes;
- Provide technical assistance to help solid waste facilities comply with regulations and minimize adverse environmental impacts;
- Promote and provide education and outreach services that support local efforts to reduce the volume and toxicity of waste in the County;
- Encourage households to switch to non-toxic or less-toxic products and reduce the volume of hazardous waste disposal from local businesses; and
- Reduce health and environmental risks associated with potential exposures from improper use, storage, and disposal of hazardous or moderate-risk waste.

COST SUMMARY

The San Juan County Solid Waste Program consists primarily of providing staff for administrative and coordination duties; conducting annual household/business hazardous waste collection and disposal events; participation in litter control; landfill monitoring and final closure; and providing community outreach and education for waste reduction, reuse and recycling. Funding for these activities comes from the County solid waste excise tax, the State Local Solid Waste Enforcement Grant and Community Litter Cleanup Program contract agreements, and lease payments from operators of the solid waste facilities.

The County’s solid waste management system is a predominantly route (curbside) collection and transport system for garbage and recycling. The three County solid waste facilities are operated

under contract by private enterprises (San Juan and Orcas transfer facilities) and public enterprise (Lopez Solid Waste Disposal District) to provide solid waste services. All capital costs, including maintenance, repair and equipment, are the responsibility of the lessee at each facility. However, the County does plan on assisting the facilities with some capital improvements over the next 6 years to address facility deficiencies and needed improvements and household hazardous waste storage containers for San Juan and Lopez facilities (see below and Table ES-1).

The Town of Friday Harbor provides curbside collection of garbage, recyclables, and yard waste for its residents. Garbage and recyclables are transported to the San Juan transfer station for processing and transport to the mainland. Yard waste is transported to Carlson Enterprises rock/gravel pit on San Juan Island for processing into compost, mulch, and fuel. To meet the demands of collection services, the Town may have to purchase another Packer garbage truck within the period of this Plan.

The estimated County solid waste program cost for the 6-year period of 2018-2023 ranges from \$457,500 to \$648,500 per year. The Town has submitted revenue and expense estimates for the 6 year planning period from 2018 to 2023. Those cost estimates, exclusive of revenue are \$1,060,850 to \$1,229,816 respectively.

RECOMMENDATIONS, IMPLEMENTATION SCHEDULE AND ESTIMATED COSTS

Table ES-1 summarizes the recommendations, implementation schedule, and costs of management plan activities through 2023.

TABLE ES-1. SUMMARY OF RECOMMENDATIONS, IMPLEMENTATION SCHEDULE, AND ESTIMATED COSTS					
	Subcategory	Recommended Action	Schedule	Estimated Cost	Funding Source
Section 3 – Waste Reduction, Reuse, & Recycling					
1	Waste Reduction & Reuse	Trade-in/reuse program for water-based paints (e.g., latex).	2019	Uncertain	Facility/Rates
2	Waste Reduction & Reuse	Upgrade and improvement of TIOLI at the Lopez solid waste facility.	Ongoing	Uncertain	Facility/Rates
3	Waste Reduction & Diversion	Community advertising to reduce contamination of commingled/sortable recyclables collected at curbside and self-haul to solid waste facilities.	Ongoing	Existing	Existing
4	County Fair Waste Diversion	Pilot-study at the food court to reduce contamination of recyclables and increase diversion rates.	Fall 2018 or Fall 2019	\$5,000-\$10,000	Rates
5	Priority Level of Recyclables	Increase the priority level of #3-#7 plastics from Low to High and yard waste from Low to Medium. Decrease glass from High to Low and add automobile tires and food waste as Low priority.	2018	Existing	Existing
6	Self-Haul Yard Waste	Expand drop-off green yard waste opportunities on Orcas and San Juan Islands.	2018-2019	Uncertain	Facility/Rates
7	Food Waste	Conduct a feasibility study on accepting food waste from residents and businesses at the Orcas and San Juan transfer stations.	2019	\$10,000-\$15,000	Facility/Rates
Section 4 – Collection					
8	Self-Haul	Evaluate self-haul rate on 32-gallon cans of garbage and noxious weeds at the San Juan transfer station.	2018	Existing	Facility
9	Curbside Collection of	Evaluate potential curbside collection of yard waste by the County certificated hauler. Conduct	2019	\$50,000-\$75,000	SJS/Rates

TABLE ES-1. SUMMARY OF RECOMMENDATIONS, IMPLEMENTATION SCHEDULE, AND ESTIMATED COSTS					
	Subcategory	Recommended Action	Schedule	Estimated Cost	Funding Source
	Yard Waste	a pilot program on Orcas Island.			
10	Curbside Collection of Garbage & Recyclables	Town of Friday Harbor possible purchase of a Packer garbage truck to maintain collection services for its residents.	Undetermined	\$225,000	Town Taxes/Collection Fees
11	Household Hazardous Waste Collection	Increase and maintain the household hazardous waste collection opportunities on Shaw Island and non-ferry served islands (Stuart, Waldron, Decatur, and Blakely).	Ongoing	Existing	LSWEG/Rates
Section 5 – Transfer – Solid Waste Handling Facilities					
12	Orcas Facility	Evaluate structural condition of tipping floor building and trailer bay, conduct improvements as necessary.	2018-2020	\$15,000- \$100,000	Facility/Rates
13	Lopez Facility	Provide covered structure to house white goods and additional safety improvements along Z-wall.	2018	\$25,000	Facility/Rates
Section 6 – Transport and Disposal or Recovery					
14	Interlocal Agreement	Continue interlocal agreement with Skagit County for municipal waste disposal, as necessary.	Ongoing	Existing	Rates
Section 7 – Education and Outreach					
15	Composting	Advertise the benefits of composting both at home and community drop-off locations.	Ongoing	Existing	Rates
16	Collection Events	Advertise collection events including household hazardous waste and litter cleanup.	Ongoing	Existing	LSWEG/CLCP /Rates
17	WASC – Solid Waste Caucus	Continue County participation in organization.	Ongoing	Existing	Rates
Section 8 – Regulation, Administration, & Enforcement					
18	Orcas Landfill	Continue testing and evaluation for final closure.	Ongoing	\$60,000- \$150,000	Reserve Fund/Rates
19	Friday Harbor Landfill	Continue testing and evaluation for final closure	Ongoing	\$60,000- \$150,000	Reserve Fund/Rates
20	Solid Waste Facilities	Develop and administer contracts, amending as necessary.	Ongoing	Existing	Rates

TABLE ES-1. SUMMARY OF RECOMMENDATIONS, IMPLEMENTATION SCHEDULE, AND ESTIMATED COSTS					
	Subcategory	Recommended Action	Schedule	Estimated Cost	Funding Source
Section 9 – Moderate-Risk Waste Management					
21	Hazardous Waste Storage	Purchase and operate household hazardous waste storage containers at San Juan transfer station and Lopez drop box.	2019/2021	\$150,000	LSWEG/Rates
22	Hazardous Waste Storage and Operation	Support the operation and training of personnel at the Orcas, San Juan, and Lopez solid waste facilities.	Ongoing	\$30,000	LSWEG/Rates

Table Notes:

1. “CLCP” as a funding source indicates contributions from the State Community Litter Cleanup Program administered by Ecology.
2. “LSWEG” as a funding source indicates significant contributions from the State Local Solid Waste Enforcement Grant funds administered by Ecology.
3. “Ongoing” means this activity is expected to continue through the 6-year life of this Plan.
4. “Existing” means costs consist primarily of staff time and expenses already budgeted.
5. “Rates” as a funding source means that additional costs will be paid through excise taxes.
6. “Facility” indicates funding contributions from one or more of the solid waste disposal facilities.
7. “Uncertain” indicates the cost of completing this action is undetermined.
8. “Reserve” indicates funds available for post-closure of landfill as required by Section 173-304 WAC.

1 INTRODUCTION

Under Washington State law [Chapter 70.95 Revised Code of Washington (RCW)], each county, in cooperation with the cities and towns located within, is required to prepare a coordinated, comprehensive solid waste and moderate-risk management plan. Municipalities located within a county must fulfill their own solid waste planning responsibilities by preparing their own plan, participating jointly with the county in the planning process, or by authorizing the county to prepare a plan for them as part of the comprehensive county plan. Municipalities must adopt a complete plan through a formal adoption process. In Washington State, the management plan must be kept in a current condition and are required to be reviewed every five years and updated or revised as necessary. Plans must also consider a 20-year planning horizon.

The purpose of this 2018 San Juan County Solid Waste and Moderate-Risk Waste Management Plan (Plan) is to provide guidance for solid waste and moderate-risk waste programs in San Juan County (County) for the period 2018 through 2023. The 2018 plan represents a revised plan for the County, and replaces the County’s previous plan, the “*2012 San Juan County Solid Waste and Hazardous Waste Management Plan*”. The Town of Friday Harbor has elected to participate with the County on this revised plan, which replaces the Town’s previous plan, the “*2014 Town of Friday Harbor Solid & Moderate Risk Waste Management Plan*”.

1.1 GOALS

The goals for solid waste and moderate-risk waste management in the County have been developed with the island’s uniquely remote and rural location in mind and in compliance with the requirements of Chapter 70.95 RCW. Several of the goals are closely modeled on those found in the 2015 Washington State Solid and Hazardous Waste Plan entitled, “*Moving Washington Beyond Waste and Toxics*.” Where goals from the County and State plans correspond, the State plan goal is referenced at the end of the County goal, in parentheses [Washington State Department of Ecology Solid Waste Management (ECY SWM) – Ecology 2015].

The State and County plans share several goals, and these too are basic to our purpose:

1. San Juan County will establish and continue to improve goals for waste reduction, reuse, and recycling (especially those relating to organic materials) that are based on economic, environmental and human health criteria (ECY SWM 2, Action SWM 2A); and
2. San Juan County will develop, promote and manage programs that are effective at managing local waste streams, meet the needs of residents, and reduce the volume and toxicity of waste (ECY SWM 3).

The goals and the Plan itself are substantially revised from the 2012 Plan (refer to each following section). At that time, the County had examined three alternatives for collection, transport, and management of County solid waste facilities and was in the process of transitioning to the new system. In 2017, those transitions are established, practices and planning have become more focused, with a clear sense of direction for the next 5 years and beyond. The goals from the previous 2012 Plan are shown in Appendix A and the status of each goal is characterized as ongoing or completed (or both). Many of the ongoing goals provided in the 2012 Plan are incorporated into this revised Plan as referenced in each section.

1.2 PLAN DEVELOPMENT AND PARTICIPATION

San Juan County Public Works Department led the revision of this Plan. Public participation in the planning process was administered through the San Juan County Solid Waste Advisory Committee (SWAC). Members of the committee are identified in the acknowledgement preface to the Plan. The SWAC had met quarterly over the last year to discuss the process for revising the Plan. A subcommittee made up of 6 members met on September 28, 2017 to review and discuss draft sections of the Plan. The full SWAC met again on October 26, 2017 to review the revised plan, after which the plan was distributed for review by County and Town Councils. Upon approval by County Council on November 13 and Town Council on November 16, the draft final plan was distributed to Ecology for their review. Ecology's comments were received on _____, and additional revisions were made to the Plan in response to those comments. The SWAC met on _____ to discuss the additional revisions, and this final Plan was prepared based on the SWAC's input. Prior notices for all SWAC meetings were published on the County website.

The County Council appoints SWAC members. Members are selected to represent a balance of interests including citizens, public interest groups, business, the waste management industry, agricultural, and local elected public officials. The SWAC assists in the development of programs and policies concerning solid waste handling and disposal. The SWAC meets as needed to review and comment on proposed rules, policies and ordinances prior to their adoption. The County and Town Councils were responsible for adopting the final Plan. **Resolutions of adoption executed by the participating jurisdictions are included in Appendix B.**

Copies of the Final Revised Plan were posted on the County and Town websites, in addition to the required environmental impact and public hearing processes.

This Plan supersedes all previous solid and hazardous waste management plans, including the most recent *San Juan County Solid and Hazardous Waste Management Plan*, approved and adopted on September 12, 2012 and the Town's *Solid & Moderate Risk Waste Management Plan* approved and adopted January 9, 2014.

1.3 MAINTAINING THE PLAN OVER TIME

To be useful in planning and informed policy and decision-making, as well as to maintain eligibility for certain types of grant funding, the County Plan must be kept current. According to Ecology, a plan is considered to be functionally current if it adequately represents the existing (Ecology 2010a):

- Planning area,
- Service level,
- Disposal facilities and their operation,
- Systems for permitting facilities and enforcement, and
- Funding levels and methods.

Plans must be reviewed within five years following approval by Ecology (RCW 70.95.110). Review should include evaluation of progress toward implementation and determination if a plan amendment or revision may be needed. Changes that are consistent with the recommended strategies, policy objectives, or goals described in the Plan usually do not require an amendment but may be adopted locally.

1.3.1 Amendments

Amendments are changes that are made within the six-year planning cycle (with review in 5-years). They are minor adjustments to the plan that are necessary to keep the plan up-to-date, ensuring that permits can be properly issued, grant funding can be secured, or the appropriate commodities can be collected for recycling. The Plan amendments are adopted through an administrative process.

Typical administrative amendments are also likely to consist of:

- Adjusting the implementation schedules;
- Changing the priority of alternative strategies and/or projects;
- Making changes to levels of service that do not significantly affect the cost to collect and dispose of solid waste; and
- Updating the priorities of the plan based on the results of a feasibility study.

The administrative amendment process for the County Plan is:

- Proposal by Solid Waste Program Administrator, Environmental Resources Manager, or Public Works Director;
- Review and comment by SWAC; and
- Review and approval by the County Council.

All amendments must be submitted to Ecology within 45 days of adoption. A plan amendment does not alter the five-year requirement for review and update or revision. Amendments that do

not fit the definition above will be addressed during the 5-year review and update or revision. However, changing the overall list of recyclable materials designated in the plan must be accomplished with the review and approval of the County Council.

1.3.2 Updates

Updates to comprehensive solid and moderate-risk waste management plans will be made in accordance with the five-year review requirement and shall follow the amendment or revision criteria and procedure described under Amendment and Revision, in this section.

All updates must retain and incorporate the moderate-risk waste plan, even if no changes are made to the sections regarding hazardous waste. Once the solid and hazardous waste management plans are combined, both must be carried forward as a single document.

1.3.3 Revision

If it has been more than five years since the Plan was reviewed, or if there are unanticipated changes in system component costs or funding mechanisms, a Washington Utilities and Transportation Commission (WUTC) cost assessment and a plan revision are required (WUTC 2001). Major changes, which cannot be accomplished under the Plan goals, policy objectives, and recommended strategies in the adopted Plan may require a revision.

Plan revisions may be proposed and adopted using the following process:

1. Revisions may be proposed by the Public Works Department, stakeholders and interested parties, or county residents. Public Works Department staff may be available to provide assistance as needed.
2. The Public Works Department planning staff will review proposed revisions, assess potential costs and benefits of implementation, suggest changes, and make a draft recommendation for or against the proposal.
3. The Public Works Department planning staff will submit the proposal and the draft recommendation to the SWAC for discussion.
4. The Public Works Department will forward the results of SWAC discussion and the Department's final recommendation to the County Council.
5. The County Council will review the proposal and approve or disapprove it. If the County Council approves the proposal, the Public Works Department planning staff will prepare a plan revision for adoption by the County Council and by any incorporated areas affected by the revision.
6. The revised Plan will be submitted to the Department of Ecology and the WUTC for review and approval.

All revisions must retain and incorporate the hazardous waste plan, even if no revisions are made to the sections regarding hazardous waste. Once plans are combined, both must be carried forward as a single document.

1.4 REGULATORY AUTHORITY

1.4.1 Washington State Department of Ecology

Ecology is charged with creating the state’s long-range plan, goals, and policies. The State oversees compliance with Chapter 70.95 RCW, Solid Waste Management - Reduction and Recycling, through review and approval of solid waste management plans and through facility permits.

In accordance with RCW 70.95.010(6)(c), it is the responsibility of county governments to assume primary responsibility for solid waste management and to develop and implement aggressive and effective waste reduction and source separation strategies. The State delegates regulatory authority over solid waste facilities to the County Health Department, which issues permits for solid waste handling and facilities in accordance with the San Juan County Code (SJCC), Chapter 8.14.

1.4.2 Other Regulations and Compatibility

Federal, State and County regulations that support or interact with the County solid waste and moderate-risk waste (MRW) programs are described in Chapter 8, Regulation, Administration and Enforcement. Operation and development of solid waste facilities, transfer, and disposal of solid waste are all subject to regulation at each of these levels to protect the health and safety of the citizens and of the environment.

Washington State has multiple laws that address solid waste handling. Solid Waste regulatory requirements are included in laws about safety, transportation, water quality, solid waste handling and disposal, environmental policy, and planning. Each of these impacts the design, operation and financing of the County's solid waste system.

Locally, the SWMP must be compatible with the following County Code and Comprehensive Plan:

1. San Juan County Code
 - Chapter 8.12, Solid Waste Disposal
 - Chapter 8.14, Solid Waste and Biosolids Handling and Facilities
 - Chapter 8.20, Board of Health
 - Chapter 18.30, Land Use Districts
 - Chapter 18.60, Development Standards
2. San Juan County Comprehensive Plan
 - Element 7, Capital Facilities
 - Appendix 7, Inventory of Capital Facilities and Projected Facility Needs
 - Appendix 2, Joint Planning Policies with the Town of Friday Harbor
3. Town Regulations and Enforcement
 - Friday Harbor Municipal Code (FHMC) Chapter 13.28, Solid Waste Collection

1.5 SOLID WASTE REGULATIONS

San Juan County operates under state and local regulations that address a wide range of actions. A summary of pertinent solid waste regulations is presented below with additional details presented in Section 8.

1.5.1 Solid Waste Handling Standards

Solid waste facility standards are described in the Washington Administrative Code (WAC) 173-350 and WAC 173-304. By State regulation, solid waste regulation and enforcement is delegated to local jurisdictional health authorities.

The rules set standards of operation and permitting requirements for solid waste handling facilities for recycling, intermediate handling (i.e. transfer), composting, hazardous waste, and tires. The rule regulates landfill disposal of a new category of wastes called inert wastes.

The rules place importance on local solid waste management plans by requiring all solid waste handling facilities to conform to local solid waste plans. Under the rules, some, but not all, recycling facilities may be conditionally exempt from permitting.

1.5.2 Electronics Product Stewardship

The U.S. Environmental Protection Agency (EPA) determined that disposal of electronic wastes (E-wastes) into municipal solid waste landfills posed a risk to public health and the environment due to the presence of quantities of lead and other toxic heavy metals that could leach into the surrounding environment. This caused considerable concern about how to dispose of the rapidly growing volumes of electronic waste in our society and raised awareness about the need to encourage producer responsibility for the design, recycling, and eventual disposal of their products.

In 2006, Washington State adopted a product stewardship law that requires the establishment of a system to recycle electronic wastes, including computers, monitors, laptop computers, and televisions. This system may not charge consumers to drop off materials and is financed by manufacturers of the electronic equipment. Rules to implement this law, WAC 173-900, Electronic Products Recycling Program, were adopted in October 2007. The new system became effective January 1, 2009. A list of take-back locations and further details may be found at <http://www.ecy.wa.gov/programs/swfa/eproductrecycle/>.

As electronic products continue to proliferate in the marketplace, more regulations for recycling them are likely to be enacted. Washington State anticipates adding other electronic components to the E-cycle program.

1.5.3 Secured Load Requirements

A State law, RCW 46.61.655, applies to people hauling garbage and other materials. The law states that “...no vehicle shall be driven or moved on any public highway unless such vehicle is loaded as to prevent any of its load from dropping, shifting, leaking, or otherwise escaping...” Significant fines may be levied against violators of this law. San Juan County Code 8.12.020(B)(4) requires vehicles delivering solid waste to a county solid waste handling site to cover their loads. Violators may be charged a three- or five-dollar fee at all County solid waste facilities for having uncovered or improperly covered loads.

1.5.4 Public Event Recycling Law

RCW 70.93.093, known as the Public Event Recycling Law, became effective in Washington on July 22, 2007. It requires that, “In communities where there is an established curbside service and where recycling service is available to businesses, a recycling program must be provided at every official gathering and at every sport facility by the vendors who sell beverages in single-use aluminum, glass, or plastic bottles or cans.....” The vendors themselves are responsible for providing recycling programs at these events. “Official gatherings” include events such as fairs, musical concerts, festivals, athletic games, tournaments, etc. Any County or Town sponsored or permitted event is subject to this law.

1.5.5 San Juan County Styrofoam Ban

Both the County and the Town have banned food service businesses from using Styrofoam (expanded polystyrene) containers for take-out or eat-in packaging effective April 22, 2010. Packaging for meat, fish and shellfish is exempt from the ban.

1.5.6 Recycling Receptacles Required at Marinas and Airports

In accordance with RCW 70.93.095, marinas with thirty or more slips and airports with regularly scheduled commercial passenger service must provide adequate recycling receptacles at their facilities. Those receptacles must be clearly marked for disposal of at least two specific recyclable materials, including aluminum, glass, newspaper, plastic, and tin.

1.5.7 San Juan County Single-Use Carryout Bag Regulation

Both the County and the Town have banned single-use carryout plastic bags in retail establishments effective May 1, 2017 (SJC Ordinances No. 10-2016 & 2-2017 and Town Ordinance No. 1618). A single-use plastic carryout bag is defined as any bag that is less than 2.25 mils (0.00225 inches) thick and is made from plastic or any nonrenewable resource. If a bag is provided to a customer at the point of sale by a retail establishment, the bag must be a reusable bag or a recycled paper bag. Plastic bags used inside stores for bulk foods, meats and produce, unwrapped bakery goods, flowers and potted plants, prescription medications and personal care products, and other products are still allowed by retail establishments.

2 BACKGROUND AND WASTE STREAM

This section presents an overview of the planning area (history, population, transportation) and county waste management system for San Juan County.

2.1 THE PLANNING AREA

The County has approximately 180 square miles of land area, which includes 176 named islands and reefs. The islands were affected in recent geological times by glacial movement over bedrock, and the soils that have developed since are typically shallow. The San Juan County 2004 Water Resource Management Plan reports that all fresh water in the county comes from rainfall. With this limited source of fresh water, groundwater conservation and water quality protection are particularly important.

2.1.1 History

Tradition and evidence indicate thousands of years of human use of the islands. The inhabitants of the islands were Coast Salish tribes whose livelihood was based on fishing and gathering. A series of European and American mariners mapped the islands and the adjacent mainland coasts as early as 1592. British colonization began in the 1840s with the Hudson's Bay Company. The islands passed into American governance in 1872 and, for almost a hundred years, the San Juan Islands were mostly known for local fruit production and fishing. In the 1960's the county population began to grow rapidly along with its popularity as a tourist destination and vacation home location. While farming and horticulture are still important local lifestyles, the major industry in the islands is tourism.

2.1.2 Population Distribution and Projections

The planning area includes all of the islands in the entire county. According to the Office of Financial Management (OFM), the 2016 population of San Juan County was 16,314 residents. While at least 16 of the islands in the county have year-round populations and have residential lots platted in Rural Residential districts, only 5 of them have ready access to a garbage collection service or an on-island solid waste facility.

The single incorporated urban area in the county is the Town of Friday Harbor, which occupies 1.24 square miles on San Juan Island and had an estimated 2016 population of 2,250 residents. Unincorporated urban growth areas (UGAs) have been established at the boundary of Friday Harbor, at Eastsound on Orcas Island, and at Lopez Village on Lopez Island. Outside of the single urban area and the urban growth areas, activity centers at marinas and the master planned resorts, such as Roche Harbor, Rosario Resort and Deer Harbor, are land-use areas where waste generation is likely to be increased. Marinas larger than thirty slips and airports with commercial passenger service must provide recycling receptacles in accordance with RCW 70.93.095.

In reviewing urban areas for the purpose of solid waste management, it appears the densest concentration of population and businesses are found in the Town and in the UGAs. For purposes of solid waste management planning, the Town, along with the UGAs of Eastsound and Lopez Village are urban areas. The rest of the county, with a population density of only about 80 persons per square mile, is rural.

ISLAND	Population	Percent
San Juan (Unincorporated)	5,560	34%
Orcas	5,395	33%
Lopez	2,466	15%
Shaw	241	1.5%
Subtotal (Unincorporated Co.)	13,662	83.5%
Town of Friday Harbor	2,250	14%
Total Ferry-Served Islands	15,912	98%
Other islands (2 have pop. of ≥50)	402	2.5%
TOTAL COUNTY	16,314	100%

The 2016 population for San Juan County was estimated by the OFM and provided in Table 1. Historical population data for San Juan County is provided in Table 2. The 2010 population data are from the U.S. Census, and data through 2016 are estimated by the OFM based on recent population growth. The population data shown in Table 3 for 2020 and beyond are based on historic trends in the County’s proportionate share of the State population (San Juan County 2017).

	2010	2011	2012	2013	2014	2015	2016
San Juan County	15,769	15,900	15,925	16,000	16,100	16,180	16,314
Unincorporated	13,607	13,720	13,785	13,815	13,910	13,965	14,070
Incorporated/ Friday Harbor	2,162	2,180	2,140	2,185	2,190	2,215	2,250

Projecting county population in 20 years by 5-year increments, County Community Development staff estimate there will be 19,979 residents in San Juan County by the year 2040.

	2020	2025	2030	2035	2040
San Juan County	16,845	17,711	18,532	19,281	19,979

2.1.3 Transportation

The four most populated islands, San Juan, Orcas, Lopez, and Shaw, are served by the Washington State Ferries. The other inhabited islands have fewer permanent residents and are typically accessible only by private boat, barge, or air service. This complex nature of transportation throughout the county affects solid waste services.

2.2 OVERVIEW OF COUNTY WASTE MANAGEMENT SYSTEM

There are three facilities for handling solid waste, one on each of the three most populous islands, operated by private-public partnerships¹ with County oversight. The San Juan County Health and Community Services Department is responsible for permitting solid waste handling facilities and for enforcement of both State and County regulations.

2.2.1 Summary of System Operations

The San Juan County solid waste management system involves a series of events including waste generation, collection, disposal or transfer, and transport for disposition, to a materials processing facility for recycling, or to a landfill for final disposal.

Waste Generation happens when anyone discards unwanted items. In 2016, San Juan County generated waste (garbage and recyclables) at the rate of about 5 pounds per person per day, about the same as the national average. How the waste is discarded is what defines it as garbage, reuse or recycling.

Collection Systems transport discarded items to a solid waste handling facility. San Juan County uses the following systems of collection.

- **Self-haul** – Large numbers of residents and businesses in San Juan County use their personal vehicles to bring garbage and recyclable wastes to County transfer stations and drop boxes (Figure 1). Approximately 74,000 vehicle trips to the three county facilities were recorded in 2016. County sites also accept special wastes, which are materials requiring special handling, such as used motor oil and antifreeze, motor vehicle batteries, appliances, and bulky items. Automotive parts and servicing businesses also accept used

¹ Throughout the document, privately operated facilities refers to the private enterprises operating the San Juan transfer station (Lautenbach Industries Inc.) and Orcas transfer station (Orcas Recycling Services), and the public enterprise operating the Lopez drop box (Lopez Solid Waste Disposal District).

motor oil, antifreeze and batteries from their service customers, and some reuse facilities accept working appliances.



Figure 1. Solid Waste Facility Locations

- **Route collection service** – Certificated Hauler San Juan Sanitation Company (SJS) is the company holding the state G-certificate² for San Juan County and provides garbage collection service to residences and businesses throughout the county. SJS also provides regular route collection for commingled recyclable materials and on-call service for occasional pick-up, for bulky wastes, and for construction and demolition debris.
- **Town collection service.** The Town of Friday Harbor Refuse Department collects garbage weekly and offers semi-monthly recycling collection service for Town residents. The Town also picks up yard waste semi-monthly from April to November and once per month from December to March.

Many businesses and multifamily residential properties within the Town subscribe to collection services for commingled recycling with SJS.

- **Collection events.** The County Public Works Department provides household and business hazardous waste collection events periodically at each of the three County facilities and occasionally on Shaw Island and non-ferry-served islands. Hazardous waste cannot be stored onsite without special containment facilities and a moderate risk waste facility permit. A specialized company, currently Clean Harbors Environmental Services Inc., comes to the collection sites and provides the immediate containment

² A "G" certificate defines a specific geographic area in which the certificate owner has exclusive rights to collect solid waste, or to collect specific categories of solid waste identified in the certificate.

required for the different types of hazardous materials, then transports them to the mainland for disposal.

- **Hazardous waste storage.** In 2017, the County Public Works Department purchased a hazardous waste storage building for the Orcas Island transfer station. The building is specially designed for temporary storage of household hazardous waste and includes built-in secondary containment, storage cabinets, explosive-proof lighting and exhaust fan. The storage building is operated by Orcas Recycling Services (ORS) personnel meeting Washington Industrial Safety and Health Act (WISHA) training requirements³. Once storage has reached capacity, the hazardous waste will be transported off-island for disposal during a County-run collection event.

If successful, the goal is to provide similar temporary storage of household hazardous waste for San Juan Island and Lopez Island within the 6 year planning cycle.

Solid Waste Handling and Transfer at the County disposal sites include preparing collected garbage, commingled recyclables, and separated recyclables for transport to another solid waste or inert waste facility for further handling or for disposal. Filled 140-cubic-yard trailers are taken directly to the mainland from San Juan and Orcas (long-haul), while 40-yard Lopez roll-off drop boxes with garbage and bulk separated recyclables are taken directly to the mainland by a private hauler. On Lopez, clean glass is transported to Lopez Sand & Gravel (LS&G), a designated inert waste landfill, for disposal.

Transport and Recovery or Disposal involves using a commercial vehicle and/or rail to deliver garbage to a landfill for final disposal or to deliver recyclable materials to a materials recovery facility (MRF) for processing, or deliver clean glass to LS&G for final disposal.

2.3 WASTE STREAM

This section presents waste quantity and composition estimates for solid waste generated in San Juan County. Solid waste is divided into three categories: municipal solid waste (MSW), other special waste, and MRW. These waste categories are discussed in the sections below.

2.3.1 Traffic and Tonnage

In 2016, San Juan County generated more than 10,800 tons of garbage and 3,430 tons of recyclable materials⁴. The 2016 recorded amounts were similar in 2010 with 8,580 tons of garbage and 3,112 tons of recyclable materials (excludes the Town totals).

The peak volume at the County privately operated (by private and public enterprises) facilities comes during the months of July through September, which coincides with both the peak period

³ Including 24-hour HAZWOPER, 8-hour RCRA Treatment Storage or Disposal training, and 8-hour WDOT Hazardous Materials Transportation training.

⁴ Includes 1,831 tons of garbage and 130 tons of commingled recyclables generated by the Town of Friday Harbor.

of seasonal visitors and the most active construction season. County data on waste generation is divided by the type of collector bringing it to the County facilities: the certificated hauler, the Town, or self-haul customers. Data on the numbers of trips and tons of waste from each is recorded by the operators at the County facilities.

Table 4 shows the numbers of vehicles and traffic relative to garbage tonnage delivered to the three County facilities in 2016.

Table 4. Types of Garbage and Recyclable Haulers in 2016			TONS
	TRAFFIC	TONNAGE	PER TRIP
San Juan Sanitation	1,030	5,670	5.5
Town of Friday Harbor	474	1,961	4.1
Self-haul	72,368	6,619	0.09
TOTAL	73,872	14,250	0.19

2.3.2 Waste Generation and Waste Import

Almost all consumer goods originate outside of the County, but the associated waste products such as packaging, clothing, furniture, siding, games, toys, tools, appliances, and other items that may have reached the end of their use are disposed of every year in San Juan County.

Special Wastes. Certain types of solid waste are managed separately from regular garbage or commingled/sorted recyclables. These waste materials, collectively known as special wastes, include used motor oil and antifreeze, batteries, construction and demolition (C&D) waste, land clearing debris, appliances, tires, auto bodies, medical sharps, asbestos, E-waste (electronic products) and hazardous/moderate-risk waste.

Waste Import. No waste collected by jurisdictions outside the county is imported to San Juan County.

2.3.3 Waste Export

Since private operation of the three solid waste facilities in the County, garbage and recyclables are exported from the County differently. All garbage that comes to the Orcas Island transfer station (including all of Orcas, Shaw, the outer islands and the SJS collection from Lopez) is currently transported off-island using Orcas Island Freight Lines to the Skagit Rail Yard. It's then loaded on railcars and transported to the Republic landfill in Roosevelt, Washington for disposal. Garbage collected at the Lopez solid waste facility is self-hauled to the Skagit transfer station for eventual transport to the Republic landfill. Lautenbach Industries transports all garbage that comes to the San Juan transfer station (including self-haulers, San Juan Sanitation – San Juan Island only, and the Town of Friday Harbor) to the Cowlitz County landfill.

There is also some variation in the way recyclable materials are handled and exported from the three facilities. Lautenbach’s (including the Town), ORS, and SJS transport commingled recyclables to MRF’s in the Seattle, Washington area. At the MRF, commingled recyclables are sorted into commodities such as plastic, paper, or various metals, so that they can be used as materials for remanufacture. Scrap metal and appliances are taken to Skagit River Steel and Recycling Co. Sorted recyclables from the Lopez solid waste facility is also transported to Skagit River Steel for processing. E-waste is collected at each of the solid waste facilities and currently transported by Orcas Freight Lines (from Orcas and Lopez) and Lautenbach’s (from San Juan) to various permitted processors in the Puget Sound area. Other miscellaneous recyclable special wastes are exported privately or through contracts with private businesses.

2.3.4 Composition of Disposed Waste

In October 2016, Ecology published a Statewide Waste Characterization Study (ECY Publication No. 16-07-032, October 31, 2016). San Juan County is grouped with Whatcom, Skagit, and Island Counties in the Northwest Waste Generation Sector of the study. The predominantly rural characteristics of all four counties indicate that the proportions of material in the Northwest sector waste stream are comparable to those in the San Juan County waste stream. The Ecology study divides the overall waste stream for the Northwest Sector by weights of material classes, which are identified in Table 5.

Presence in NW Sector Waste Stream	OVERALL	RESIDENTIAL	COMMERCIAL	SELF HAUL
MATERIALS	Estimated %	Estimated %	Estimated %	Estimated %
Paper packaging	8.0	10.4	9.5	3.5
Plastic packaging	5.2	6.9	6.4	2.3
Glass	1.8	2.6	2.1	0.7
Metal	5.8	3.2	6.7	7.7
Organics	29.3	42.9	32.4	25.1
Wood debris	13.3	1.1	12.9	2.4
Construction Materials	9.5	0.7	1.7	21.3
Paper products	6.9	13.5	6.9	3.2
Plastic products	5.2	3.4	5.9	7.8
Consumer products	8.3	4.1	7.8	23.8
Hazardous/special wastes	2.3	1.9	3.6	0.1
Residues	4.4	9.4	4.2	2.2

(2015-2016 Washington Statewide Waste Characterization Study, Department of Ecology Publication No.16-07-032)

2.4 SOLID WASTE GENERATION FORECAST

The character of the economy, the distribution of the population, and the fluctuations in population directly influence the character and volume of the County's waste stream (Table 6).

San Juan Sanitation, San Juan and Orcas transfer stations and the Lopez drop-box will have adequate capacity for collection of solid waste generated by the projected population growth over the next 6+ years.

Table 6. Projected Solid Waste Generation (in Tons)							
	2017	2018	2019	2020	2021	2022	2023
SJS (County-Wide)	4,252	4,379	4,511	4,646	4,785	4,929	5,076
San Juan	2,146	2,167	2,189	2,211	2,233	2,255	2,278
Orcas	2,136	2,157	2,179	2,201	2,223	2,245	2,267
Lopez	627	633	639	646	652	659	665
Town of FH	1,850	1,868	1,887	1,906	1,925	1,944	1,963
SJC Total	11,011	11,204	11,405	11,610	11,818	12,032	12,249

Municipal Solid Waste (MSW) projections for 2017 through 2023 are calculated using:

- 100% of certificated hauler 2016 tons with an annual inflation factor of 3% based on recent increases of 3-5% over the last 4 years, and
- 100% of actual 2016 Town and self-haul MSW tons with an annual inflation factor of 1% based on expected population and tourism increases over the next 6 years.
- Solid waste projections may be biased low based on recent market changes to the acceptability of some recyclable material streams.

3 WASTE REDUCTION, REUSE, & RECYCLING

This section discusses current programs, lists the County's designated recyclable materials, and establishes goals for waste reduction, reuse, and recycling. In 2013/2014, the County implemented a new system for operation of the solid waste facilities and will continue to encourage new entrepreneurial opportunities and partnerships in the coming years.

With community support and cooperation, County programs promote waste reduction, reuse, and recycling. Two of the three County, privately operated solid waste facilities (Orcas and Lopez) have reuse operations on site. On San Juan Island, there is privately-owned reuse facility (Consignment Treasures) available to the public. County programs have supported composting workshops and provided composting equipment to residents at cost. There is an Ecology conditionally-exempt composting facility, Midnight's Farm located on Lopez Island, which accepts yard waste from local residents and businesses. ORS accepts green waste from its customers, which is then made into mulch for resale. The Town collects green yard waste curbside from residents within Town-limits. The County is encouraging large-scale composting on the other islands using similar business models.

All three solid waste facilities accept recyclable materials. Together they have handled an average of 3,000 tons of recyclable materials each year since 2001. In 2016, the total recyclables handled in the County was 3,429 tons, an increase over the running average. Recyclables that require special handling, such as motor oil, antifreeze, appliances, and mercury-bearing items are currently deposited at the solid waste facilities regularly or during special collection events. County data on quantities of materials recycled do not include independent reuse and recycling businesses and organizations (e.g., Consignment Treasures) that are operating on the three main islands.

3.1 GOALS

The goals for waste reduction, reuse, and recycling in the County have been developed with consideration of goals from the State's *Moving Washington Beyond Waste and Toxics* (Ecology 2015). Where goals from the County and State plans correspond, the State plan goal is referenced at the end of the County goal, in parentheses.

3.1.1 Reduce Sources of Potential Waste

The County's goal of reducing sources of potential waste will be accomplished by expanding and supporting improved methods for dealing with greater volumes of organic waste and promoting local use of compostable products. Specifically, the County will:

- Identify public and private land suitable for community compost operations and consider land use designation adjustments to enable community green waste or food waste composting and collective management of organic farm waste;

- Assist community composting feasibility planning with information on applicable environmental regulations and networks of State and other experienced sources;
- Support scalable local systems for managing food and yard residuals (ECY SWM 22A);
- Provide training for residential and business composters and explore partnerships with educational institutions and private non-profits;
- Work with collection service providers, composters, and other stakeholders (e.g., Conservation District) to research and promote better selection of feedstocks, including compostable food service products, as well as better source separation at all points of collection (ECY SWM 23A);
- Promote use of soil amendments derived from recycled organic materials as a means to improve plant and soil vitality and reduce the need for synthetic fertilizers, pesticides, and herbicides (ECY SWM 18A); and
- Support use of quality organic soil amendments (such as compost and biochar) to increase soil organic matter and moisture-holding capacity, protect soil and plants against drought conditions, and reduce water use and runoff (ECY SWM 19A).

The County will work towards reducing the volume and toxicity of materials brought to the islands by:

- Encouraging buying habits that avoid products with toxic ingredients and that use excessive packaging (including plastics); and
- Providing technical assistance to businesses for reducing solid waste generation through Lean and Green, Technical Resources for Engineering Efficiency (TREE) assistance, Pollution Prevention Planning, Environmentally Preferable Purchasing, and other efforts (ECY SWM 4A).

3.1.2 Support Reuse and Waste Diversion

The County's goal of supporting reuse and waste diversion will be accomplished by reducing the volume of waste transported off the islands and by promoting reuse as the first and best alternative to discarding any item. Specifically, the County will:

- Develop programs that establish reuse as the first choice in managing unwanted materials, followed by recycling, then by responsible disposal;
- Provide resources for educators and others to develop imaginative reuse projects; and
- Make any sales of surplus County-owned equipment available within the county.

The County will facilitate publicly available reuse operations such as those at the Orcas Island “Exchange” and Lopez “Take It or Leave It” (TIOLI) by:

- Establishing policies and guidelines in accordance with health and safety regulations;
- Providing information about local reuse opportunities and facilities;
- Diverting C&D debris from the county waste stream;
- Developing policy or code for building demolition permits to include providing salvage and reuse opportunities⁵;
- Developing policy to require a waste management plan in building and development permits; and
- Providing incentives for building relocation or materials salvage, rather than demolition or burning.

The County also will develop policies and public awareness that will prevent litter and marine debris by:

- Continuing to promote personal reusable bags as appropriate for shopping and purchases;
- At all points of entry, place information about the County and Town’s bans on single-use plastic bags and encourage mention of the plastic bag ban tourism websites; and
- Coordinate and support organized public programs to collect litter on all islands.

3.1.3 Increase and Improve Quality of Recycling

The County will increase and improve the quality of recycling by developing a coordinated program to expand public knowledge about recyclable materials (ECY SWM 5). This will be accomplished by:

- Promoting the purchase of products made from recycled materials (ECY SWM 6E);
- Providing public information about product stewardship and take-back policies for appliances and electronic products;
- Distributing consistent, well-organized summaries of recyclable materials and make them widely available; and

⁵ San Juan County Community Development was contacted regarding the last three bullets. The County has no such guidance in permits, but relies on the builders to be aware of and follow health regulations for disposal.

- Providing recycling containers in pedestrian traffic locations and encourage their use in private businesses.

The County will also ensure route collection of recyclable materials on the four major islands and develop methods to minimize contamination and cross-contamination of recyclables (ECY SWM 5).

3.2 WASTE REDUCTION

Waste reduction is a key principle of the State's *Beyond Waste and Toxics Plan*, of the State's public health regulation as described in Chapter 70.95 RCW, Solid Waste Management Reduction and Recycling, and of this Plan.

Waste reduction programs rely on actions to limit or eliminate the volume, toxicity, or life-cycle impacts of solid and hazardous waste materials. Reducing waste generation can be achieved by reducing initial consumption, reusing durable repairable products, retrieving materials from disposal, and reducing use of toxic products. Waste reduction also reduces environmental impacts associated with production, distribution, marketing, and disposal of goods. A basic strategy of both volume and toxicity reduction is to stem the flow of wasteful and hazardous materials by influencing retailers and manufacturers to upgrade their processes and to reduce their use of resources.

Unlike recycling or diversion, most waste reduction methods require no processing of discarded materials and tend to reduce the costs of waste handling and disposal.

3.2.1 Zero Waste

Zero waste is a philosophy and a design principle that addresses the flow of resources and waste. It goes beyond recycling and emphasizes a systems approach similar to sustainable natural cycles, where discarded materials become resources. The holistic concept of *Zero Waste* is to reduce consumption, to reduce waste through reuse, to maximize recycling, and to close the loop by conscientiously using recycled products whenever they are available. Consumer goods are designed and manufactured to be re-used, repaired, or recycled back into nature or back into the marketplace with zero waste practices.

In the County solid waste system, collection routes and waste facilities could include a place for reusable items. For example, ORS and LSWDD currently operate reuse facilities (i.e., Exchange and TIOLI) and are considering a trade-in/reuse program for latex paints.

Furnishings and equipment for the solid waste system, such as garbage and recycling cans, and supplies should be those that are manufactured using recycled materials, or serviceable items that have been donated for re-use.

3.2.2 Resident and Business Practices

Actions that result in waste reduction often begin with personal choices. Individuals choose to limit their new purchases or choose to purchase more durable products. They choose products without excessive packaging or decline to take the packaging with them when they make the purchase. They choose less toxic cleaning, repair, and gardening supplies. They use and reuse items thoroughly before discarding them, or pass them along to a reuse facility or thrift shop. Such choices reduce the amount of waste that must be collected, packed and removed from the County's islands. Borrowing, sharing, and renting, plus fixing and maintaining, are all actions that reflect islanders' values and sense of community.

3.2.3 County Programs

The County's waste reduction policies are currently implemented by the Public Works Solid Waste program with support and participation from the privately operated solid waste facilities. Some of the County program activities include:

- News articles submitted to local newspapers and posted on the County website;
- Responses to citizen inquiries about disposal with suggestions on preventing and reducing waste;
- County efforts to reduce consumption of paper and other office supplies;
- County Facilities' division policy to use non-toxic or least toxic cleaning and gardening products;
- Outreach to local businesses to use products and processes that are less toxic;
- County and Town Styrofoam ban; and
- County and Town regulation on single-use carryout bags.

Both the County and the Town have banned food service businesses from using Styrofoam (expanded polystyrene) containers for take-out or eat-in packaging effective April 22, 2010 (packaging for meat, fish and shellfish is exempt from the ban). On May 1, 2017, the County and Town placed restrictions on the use of single-use carry out bags by retail establishments.

3.3 REUSE

Reusing items and materials until no further use is left is another way to divert materials from landfill disposal. Reuse also reduces the need for purchasing new products and consuming more resources. Reuse operations have played a major role in reducing the volume of waste in the County. More than 25 years ago, reuse facilities were established at the Orcas and Lopez Islands' solid waste facilities, mostly through volunteer action. Consignment Treasures, a private not-for-profit reuse/recycling business has been operating for nearly 12 years on San Juan Island. Offering a great variety and quantities of items that have been diverted from the waste stream, each reuse facility is enthusiastically and consistently supported by local residents.

3.3.1 The Orcas Exchange

The Orcas “Exchange” reuse center was founded at the Orcas Island transfer station by the non-profit ORS organization in 1981. Acting as a “good stuff” filter on the waste stream, the Exchange was historically open the same days and hours as the County-run transfer station for convenient drop-off of reusable items such as household furnishings, clothing, books, small appliances, electronics, sports equipment, toys, building supplies, hardware, and tools. The Exchange, with a combination of volunteers and paid staff, screened items prior to accepting them. Materials were sorted, stored, tested and repaired, and re-distributed to the community. There were no price tags, but donations were accepted for the re-distributed goods.

In 2013, ORS began operating the solid waste facility, under contract with San Juan County. In keeping with their Zero-Waste mission, ORS significantly increased the Orcas Island recycling program to include appliances, steel and mixed metal, batteries, E-waste, fluorescent tubes and bulbs, green waste, cooking oil, and tires.

The same year ORS took over operation of the transfer station, the Exchange burned to the ground. After several years of fundraising and county grant money, the Exchange was rebuilt by the County and ORS in 2017. This new County-owned facility has over 5,000 ft² of covered storage dedicated to reuse, and includes a workshop, conference room, office, bathroom, and kitchen/laundry facilities.

3.3.2 The Lopez “Take It or Leave It”

The Lopez TIOLI reuse facility was formed in 1992 and is located at the Lopez Island solid waste facility. LSWDD staff and volunteers screen, sort and maintain items such as furniture, small appliances, plumbing and building supplies, gardening and farming supplies, clothing, books, and tools. Items left there are free to residents and donors agree to pay for disposal of certain items if they are not taken for reuse within a set period of time.

3.3.3 Shaw Island

The Shaw Island Community Center offers a casual, unstaffed reuse shed near the community meeting building. Volunteers maintain the small facility, which is on both County and Shaw Islander’s property.

3.3.4 San Juan Island and Other Opportunities for Reuse

Not all reuse depends on operations at County facilities. Non-profit organizations, the Friday Harbor Firefighters Association Thrift House, Consignment Treasures, and other thrift shops and commercial reuse stores on San Juan, Orcas, and Lopez Islands, along with traditional yard sales and classified advertisements also divert useful goods from the landfill.

Reuse of C&D waste is an important alternative to the current practice, in which most waste is either put into the garbage or burned. Previous public feedback indicates a strong interest in recovery and reuse of C&D materials in the County (SJC 2012).

The nonprofit Institute for Local Self-Reliance reports that a trained deconstruction crew can recover as much as 85 percent of the materials from the demolition of a single-family house (www.ilsr.org). The RE Sources for Sustainable Communities and the RE Store, a materials reuse operation based in Bellingham, may be available for deconstruction projects and resource recovery in San Juan County.

3.4 RECYCLING

Although it does not serve to reduce the total waste stream, recycling diverts waste from landfill disposal and reduces consumption of resources. Disposing of items as recyclable requires some preparation. The first step is that recyclable materials must be clean. Fully participating in recycling includes buying products made with recycled materials.

The amount of recyclable materials handled at County facilities has averaged about 3,000 tons per year over the last ten years but the trend (based on the 2016 data) is increasing. This steady amount of recycling tonnage with some increase is similar to garbage, which increased from more than 8,000 tons in 2010 to about 8,990 tons (~10,820 tons including Town) in 2016. The increase in both garbage and recycling tonnage may be due to increases in County population and tourism.

At County facilities, most of the recyclable materials are commingled and then sent to a MRF for sorting. Self-hauled recyclables are taken to each of the three facilities with sorting encouraged at the San Juan and Lopez facilities. The certificated hauler, SJS offers regular residential recycling collection service on the four large islands of the County, which is transported to an off-island MRF for processing.

San Juan Sanitation also offers commercial recycling services to businesses, including construction sites. Shaw Islanders have taken over the discontinued County service, paying to have the recyclable materials roll-off box at the County-owned community center site hauled to the Orcas transfer station, where it is emptied and returned to Shaw. Similar services by SJS are also provided to the Blakely Island and Decatur Island communities.

The County solid waste website offers recycling guidelines, with the list of recyclable materials currently accepted at each of the County facilities (refer to <http://sanjuanco.com/348/Waste-Management-Operators>). The transfer/drop box operators will also provide lists of what items are accepted for recycling. The list of designated recyclables can be revised over time, in accordance with the potential for waste stream diversion, market conditions, and new technologies and programs.

San Juan Sanitation participates in recycling through a conditional use permit at their base yard on Orcas Island, where scrap metal, appliances, aluminum, brass, copper, and stainless steel are

accepted. SJS charges a handling cost for recycling appliances (white goods). The conditional use permit includes the potential for other services.

Additional businesses on San Juan Island will accept and pick-up appliances for recycling (e.g., Consignment Treasures).

The three solid waste operators are registered to collect E-Waste for recycling. The E-Waste is transported by Orcas Freight Lines to licensed processors on the mainland. Lautenbach Industries is also registered to transport E-Waste.

Refer to Table 7 for a summary of what types of recyclables are handled at public and other facilities.

Recyclable materials	Orcas	San Juan	Lopez	Shaw/ Blakely/ Decatur	SJC events	SJC offices	Private
Commingled or source separated materials paper, cardboard, plastic bottles & jugs (PET/HDPE), other plastic containers, aluminum cans, metal food cans, and glass	X	X	X	X	X	X	
Oil, antifreeze; vehicle/marine batteries	X	X	X	X*	X		
Refrigeration and other appliances	X	X	X				X
Scrap steel	X	X	X				X
Electronics	X	X	X				X
Fluorescent light tubes	X		X		X		X
Compact Florescent light bulbs (CFLs)	X		X		X		X
Agricultural plastics	X	X	X		X		
Christmas trees	X				X		X
Printer cartridges						X	
Rechargeable batteries	X		X	X*	X	X	X
Cell phones			X		X	X	X
Restaurant grease	X						X
Automobile tires	X		X				X

* Blakely Island community collects vehicle/marine batteries and rechargeable batteries for recycling.

3.5 CURRENT PROGRAMS FOR RECYCLABLE MATERIALS

At this time, commingled recycling drop-off is available to most in the County, and the privately operated County facilities accept the following materials: paper, cardboard, plastic bottles and

jugs (PET/HDPE), miscellaneous plastics (#3-#7), aluminum cans, metal food cans, and glass containers.

Other recyclables that are bulky, contain toxins, or otherwise require special handling, are accepted regularly at County facilities or during collection events and are hauled to the mainland for processing and recycling by various specialists.

Some wastes that cannot readily be commingled, but can be recycled, are routinely dropped off at the three County facilities at this time. They can generally be categorized as vehicle/marine products such as batteries, motor oil and antifreeze, and as refrigerated appliances and other white goods. Other, private drop-off locations are available and indicated in Table 7. One or more of the County solid waste facilities accept mercury-containing lights (fluorescent tubes and bulbs), rechargeable batteries and cell phones, printer cartridges, and electronics/E-Waste.

3.6 DESIGNATED RECYCLABLE MATERIALS

Recyclable materials for San Juan County are designated in this chapter of the County Plan in accordance with Chapter 173-350 WAC and Section 70.95.090(7)(c) RCW. The designated recyclable materials for the County are listed in Table 8. Because market conditions change frequently, the list of designated materials is followed by a description of the process to revise the list.

The County's list is not intended to create a requirement that every recycling program in the county collect every designated material. Instead, through a combination of programs offered throughout the county, residents and businesses should have an opportunity to recycle all of the designated materials through at least one program. In other words, if plastics are on the designated materials list, then at least one program in the county must collect plastics.

The table assigns priorities for collection of recyclable materials, and both residents and businesses should have better access to collection of the high-priority materials. If a material is assigned a high priority, it should be among the materials that can be collected through a route collection program, making it maximally convenient to recycle. Medium means that opportunities should exist in the county, such as transfer stations and drop boxes. Low priority means that the materials are hard to recycle and can be recycled when markets are locally available. This does not affect commingled or separate collection.

Material	Priority Level
Cardboard	High
Newspaper	High
Office paper/other high grade paper	High
Magazines, catalogs and phone books	High
Mixed waste paper	High

Material	Priority Level
Aluminum	High
Ferrous scrap metal	Medium
Tin Cans	High
PET and HDPE (#1 & #2) Plastics	High
#3-#7 plastics	High
Yard debris	Medium
Used Motor Oil	Medium
Uncontaminated anti-freeze	Medium
Automobile batteries	Medium
Household Batteries	Medium
Appliances	Medium
Electronics	Medium
Clear bottle glass	Low**
Colored bottle glass	Low**
Fluorescent lights (CFLs)	Medium
Film plastics	Low
Automobile and Truck Tires	Low
Food waste	Low

** Glass has been the subject of studies, and Ecology Pub. No. 10-07-009 Beyond the Curb (Ecology 2010b) demonstrates that glass is problematic when collected in a mixture with other recyclables, especially paper and can cause damage to recovered materials and to processing equipment.

No. 3-#7 plastics were changed from Low to High priority because they are currently accepted curbside by SJS and the Town, and all three solid waste facilities. Yard debris was increased from Low to Medium priority because the Orcas transfer station accepts clean green yard waste from its customers. Midnight’s Farm on Lopez and Carlson Enterprises on San Juan also accept yard waste. Clear and colored glass was down-prioritized to Low because of the current market and cost for recycling. Automobile tires were added to the list because they are accepted for a fee at the Orcas transfer station and Lopez drop box. Food Waste was added as a specific category because it presents continued and enhanced opportunities for significant waste reductions.

3.6.1 Separate Commodities or Commingled

Choices for commingling or not should remain flexible, depending on administrative decisions that may include local plans for direct marketing to recycling recovery processors. However, including the option for self-haul separation of recyclables is a near-term goal for the San Juan

and Orcas transfer stations. The following materials may be commingled, or each type of commodity may be collected separately.

- Corrugated cardboard;
- Plastic bottles, jugs, and tubs;
- Plastic film and bags;
- Aluminum cans and foil, tin-coated steel cans;
- Newspapers (including the glossy inserts);
- Telephone books;
- Mixed paper (including mail, magazines, catalogs, phone books, white and colored paper, file folders and chipboard);
- Clean paper food containers (bags, dry food boxes, egg cartons, milk cartons⁶);
- Scrap ferrous metal (measuring less than 2'x 2'); and
- Glass food and beverage containers - Glass is currently a problematic material for recycling (The high cost of handling it and getting it off-island make it a difficult material to recycle. We will continue to look for ways to better utilize glass, but until we find consistent effective markets, we need to retain the option to dispose of that material in a landfill).

3.6.2 Special Handling Recyclable Materials

The following materials, which require special handling and cannot be commingled, are also designated as recyclable, or as containing recyclable materials:

- E-Waste,
- Appliances,
- Mercury-containing fluorescent tubes and bulbs,
- Uncontaminated used motor oil,
- Uncontaminated antifreeze ,
- Agricultural plastics,
- Vehicle/marine batteries,
- Rechargeable batteries and cell phones,
- Textiles, and
- Construction and demolition debris (e.g., sheetrock, roofing, asphalt, concrete, wood, ceiling tile, copper, lead, (non-ferrous metals), window glass)

The list can be revised over time according to the following factors, as determined by the County's solid waste program and coordination with the certificated hauler and solid waste facility operators.

⁶ Milk, juice and other liquids contained in Tetra Pak materials are not currently accepted for recycling at the Lopez facility. They are treated as garbage.

3.6.3 Process to Amend or Revise the County List of Designated Recyclables

The list of designated recyclable materials and/or the priority for collection of specific materials for the County may need changing in response to markets, to technology, or to new legislative mandates.

Requests to change the list of designated recyclables should be submitted to the County Solid Waste Program Administrator. The request may come from the certificated hauler, the solid waste facility operators, from citizens, from the County Council, or from the Public Works Environmental Resource Manager or Director. The request to change the list should be accompanied by a researched report about markets, technology, or new legislative mandates and how changes in any of those areas influence the County's designated recyclables list. The County Solid Waste Program Administrator will review the request and report and prepare an analysis of the proposal for an amended or revised list of designated recyclables. Amendments may be accomplished administratively, subject to approval by Ecology. Revision of the list of designated recyclables (as compared to amending the priority or designation) is subject to the approval of the County Council.

If approved, the designated recyclables list will be updated and submitted to Ecology. However, this process is not a Plan amendment and does not require an Ecology review period. This method is intended to facilitate responsiveness to external change and modification of the designated recyclables list, and the entire process should not take more than 60 days to complete.

3.7 ORGANICS MANAGEMENT AND COMPOSTING

Organic materials management includes composting and other energy recovery technologies. "Organics" refers to carbon-based materials that include forest slash, food, yard debris, manures, and other agricultural residues. Keeping organics out of landfills reduces methane released during its decomposition. Turning organics into compost, bioenergy, biofuels and other products promotes economic vitality in growing industries, and protects the environment by turning waste into resources. Organics recycling also provides significant environmental and human health benefits. Practices such as landfilling organics, open burning, and storing manures in open lagoons contribute to climate change by releasing increased greenhouse gasses.

Composting accomplishes both waste reduction and recycling, an important goal for the County and the State's *Beyond Waste and Toxics* plan. Composting yard and food waste can significantly reduce the amount of material that goes to the landfill. Statewide, organic waste makes up about 30 percent of the waste stream (refer to Table 5). Compost has beneficial private and public uses. When added to the soil, it can absorb excess rainwater, support healthy plant roots, and trap pollutants. Composting is also preferable to burning yard waste, which negatively affects air quality and can create toxic ash.

Organics management has been accomplished in the County primarily by individuals who choose to turn their kitchen and yard waste into improved soil by composting. For about 10

years ending in 2012, San Juan County invested in a composting program that provided workshop presentations to instruct participants on basic home composting and provided manufactured compost bins available at a reduced cost (SJS 2012). About 450 compost bins had been distributed to residents of the County through this program. Information on home composting and building your own backyard compost bin is available on the County website (www.sanjuanco.com/346/Composting-Information). Agencies and local non-profit organizations such as Washington State University (WSU) Master Gardeners, WSU Extension Agriculture Program, San Juan Islands Conservation District, and the SJC Agricultural Resources Committee have partnered with the County in composting education programs.

In addition to backyard compost bins, there are several locations in the County for residents and businesses to drop-off their yard waste. On Lopez Island, Midnight's Farm operates the only composting facility in the County that is either conditionally exempt or permitted by Ecology. They compost cattle and pig manure, bedding, old hay, and other agricultural wastes mixed with community drop-off yard waste in a static, aerated bin system. During the active composting phase, blowers direct air into the center of each pile aerating the compost. Every batch is mechanically turned at least four times and reaches temperatures of at 135°F to kill weed seeds and pathogens. Finally, the processed compost is screened to provide a uniform, easy to use, and stable product. This dark compost is sweet smelling, a valuable soil amendment, and rich in microbial life. Midnight's Farm accepts public drop-off of yard waste (grass, leafy material, anything with seeds, deciduous branches, pruning's, flowers, weeds, alder, rose bushes, salal or fruit) and wood waste (evergreen branches, stumps up to 10 in diameter, and logs up to 24 in diameter cut into 5 ft lengths). For more information, visit www.midnightsfarm.com.

On Orcas Island, the operator of the Orcas Island Transfer facility accepts clean, green yard waste for a fee. The yard waste is ground into a fine mulch for resale. For more information, visit www.exchangeorcas.org.

The Town provides curbside collection of green yard waste to its residents once or twice per month depending on the season. The yard waste is transported to Mike Carlson Enterprises located on West Valley Road on San Juan Island for processing including mulching, composting, and as fuel. For more information, visit <http://www.fridayharbor.org/PDF/Reference/RefuseSchedule080116.pdf>. The County has been working with Carlson and the San Juan transfer facility in expanding drop-off of yard waste on San Juan Island. One possible option is to provide bins at the transfer station for customer drop-off of green yard waste. Full containers would be transportable to Carlson's rock/gravel pit for processing into compost, mulch, and other products.

The County and the operators of transfer facilities on Orcas and San Juan are evaluating options for accepting food waste from residents and businesses. As of this writing, there are no concrete plans for operation but diverting organic waste from the landfill is an important goal of the County.

Several resource materials for composting are presented in Appendix C.

3.8 CONSTRUCTION AND DEMOLITION DEBRIS

At this time, C&D wastes are typically allocated to garbage containers or drop-boxes in San Juan County. Such wastes are bulky and expensive when treated as garbage. Materials that could be diverted for reuse or recycling include concrete, asphalt roofing, clean wood, steel and other metals, and gypsum wallboard.

The National Association of Home Builders reports that construction of a new 2,400 square-foot home generates 2.5 tons of waste, and that an average remodel can generate up to 18 tons of waste (NAHB 2015). With a local collection point and some facilitation, C&D materials could find many local uses in rural San Juan County, where reuse is popular. For example, single pane windows and recycled lumber are ideal to build chicken coops, garden sheds, and greenhouses. Old decking can be used as raised garden bed borders and landscape timbers.

Some other opportunities for reuse and recycling of construction and demolition debris/waste are located at:

- San Juan Island – Lautenbach Industries Inc., Consignment Treasures
- Orcas Island – Orcas Exchange,
- Lopez Island – TIOLI,
- Bellingham – The RE Store, and
- Burlington – Lautenbach Industries Inc.

Potential users of any of these locations are encouraged to call ahead and find out if the materials will be accepted at that location.

3.9 PROGRAM FUNDING

Funding for both education and action programs for waste reduction, reuse, and recycling has become more challenging since the County revised its operations programs, reducing revenues and relying solely on excise taxes from the certificated hauler and privately operated transfer stations.

Education projects and materials have been supported for several years by the Ecology Coordinated Prevention Grant (CPG) program, recently renamed the Local Solid Waste Enforcement Grant (LSWEG). However, these grants come with a required 25 percent match with County funds and this important State funding has been significantly reduced the past two biennium's. With the transition to non-County operations, diminishing County revenues and staffing expenditures has reduced the amount of grant funding for County programs. Lack of County and LSWEG supporting funds could adversely affect established programs such as waste reduction, special recyclables, and household and business hazardous waste collections. County management can commit other funds to match grant revenues.

3.9.1 Composting

As an alternative to LSWEG funding, the composting education program could shift to relying on not-for-profit funding or volunteer workshop organizations. A local mentorship program could provide training and networking for home composters. With organics amounting to more than 30 percent of the statewide waste stream, composting is a prime opportunity to reduce the amount of waste that must be transported out of the county. The composting program is a good candidate for local support with its track record of success and a sustained and vocal community interest. For example, the St. David’s Episcopal Church has constructed a three-bin community composting facility on their property in Friday Harbor. The pilot project will accept green/brown yard waste and food waste from its parishioners and the local community and use the site for education and demonstration of public composting workshops during the summer and fall.

3.9.2 Outreach and information

Residents and business representatives calling the County and attending solid waste planning meetings continue to voice their confusion about what is recyclable (i.e., such as which types of plastics to collect, how clean items must be, if container lids are recyclable, and so on). Some seemed unaware of recycling guidelines and other information that are available on the County website. More diverse and higher-profile means of designing and distributing information about the recyclables list and waste reduction opportunities should be studied, funded, and implemented.

3.9.3 Agricultural plastics

Agricultural plastics are accepted at the three solid waste facilities in the County. The collected plastics are recycled or reused by local farmers and growers. Local coordinators and planners from the WSU Extension Master Gardeners Program, Agricultural Education Service, the Agricultural Resources Committee, the San Juan Islands Conservation District, and local agricultural and gardening businesses have indicated an interest in sustaining an agricultural plastics recycling program in the County.

4 COLLECTION

Solid waste collection is a system of gathering discarded materials from residences, businesses, or other collection points and transporting them to place(s) where they can be reused, consolidated, recycled, or placed in a landfill. The solid waste collectors in San Juan County are referred to as the certificated hauler/route collector, Town of Friday Harbor, or self-haulers.

Garbage collection is a significant part of any local government’s statutory responsibility to safeguard public health and safety. In compliance with both State and County regulations, the County and Town governments must ensure a reliable means of solid waste collection. Washington State regulations also require counties to separate recyclable materials from garbage, and this is termed source-separation.

4.1 CURRENT SYSTEM

Lautenbach Industries, Inc. (San Juan Island transfer station), ORS (Orcas Island transfer station), and the LSWDD (Lopez Island drop box) currently operate the three County facilities. All three facilities receive commingled recyclables, which are delivered by self-haul, except for deliveries by the Town of Friday Harbor and any business collections by the certificated hauler. San Juan Sanitation, the private, G-certificated hauler in San Juan County provides route collection service for garbage and commingled recyclables to those who request it. LSWDD also allows its customers to separate their recyclables into containers onsite.

All three facilities provide drop-off services for special handling wastes including used motor oil and antifreeze, appliances, lead/acid batteries, E-waste, steel, and medical sharps. No fee is charged for noxious weeds, beach litter, and roadside litter (billed to County under the Noxious Weed and Community Litter Cleanup programs). The reuse facilities “Exchange” and “TIOLI” operate at the Orcas and Lopez solid waste facilities, respectively. Annual household hazardous waste collection events are also provided on San Juan, Lopez, and Orcas Islands. Some collection services or events are offered to outer islands with priorities as needed.

4.2 GOALS

The following goals are specific to solid waste collection in the County.

4.2.1 Ensure a Reliable and Sustainable System for Collection of Garbage and Recyclables

To ensure a reliable and sustainable system for collection of garbage and recyclable materials, the County will:

- Coordinate the work of three privately operated facilities through continued participation on the SWAC for vibrant communication and planning about best management practices

for effective and efficient collection and transfer of recyclable materials, solid waste, white goods, reusable items, compostable material, construction and demolition debris and other materials requiring special facilities or handling;

- Examine models and opportunities to increase efficiencies of collection services, which will encourage more recycling and safe disposal (ECY SWM 7B);
- Rely on local and mainland businesses to collect special wastes not included in commingled or source-separated recyclable collection;
- Provide technical assistance for collection operations to expand and coordinate the types of collection services they offer, potentially including reuse facilities; and
- Provide periodic collection opportunities on non-ferry-served islands to prevent stockpiling of waste and private property disposal (ECY SWM 11C).

4.2.2 Provide Collection Opportunities for Moderate-Risk Wastes

The County will continue to provide collection opportunities for MRW including:

- Conducting collection events on the three major islands annually with the objective of increasing the frequency to semiannual;
- Acquire and staff a hazardous waste drop-off facility on each of the three major islands; and
- Provide periodic hazardous waste collection opportunities on non-ferry-served islands to prevent stockpiling of waste and private property disposal.

4.3 INVENTORY OF SOLID WASTE COLLECTION SERVICES

This section provides an inventory of solid waste collection services in San Juan County including the certificated hauler – San Juan Sanitation, Town of Friday Harbor, and self-haulers.

4.3.1 Collection Service Area

The 2016 area and population density for the Town and Unincorporated San Juan County are presented in Table 9 below.

	Area	Population Density
Town of Friday Harbor	1.24 square miles	1,829 per square mile
Unincorporated County	175 square miles	80 per square mile

4.3.2 Collection Systems

In San Juan County, there are currently three different regular collection systems for garbage and recyclable materials.

Certificated Hauler – San Juan Sanitation Company

San Juan Sanitation is the collection company that holds the hauling certificate for the collection area of San Juan County awarded by the WUTC.

As the certificated hauler for all of San Juan County, SJS provides regularly scheduled solid waste collection service to residences and businesses on the four ferry-served islands and delivers the collected garbage to the Orcas Island and San Juan Island transfer stations. Recyclable materials are transported by SJS to Waste Management in Seattle for processing. SJS also provides on-call services and dumpster pick-up to ferry- (e.g., Shaw) and non-ferry-served islands (e.g., Blakely).

SJS does not provide cans or carts to its customers, but will work with a variety of shapes of containers, charging by the volume equivalent to standard containers (32 gallons). Service is provided to part-time residents, not only to those who subscribe for every month of the year. SJS collection services include:

Residential Garbage and Recyclables.

Subscription or on-call garbage and recycling route collection services. SJS does not provide route collection for special wastes. SJS will pick up bulky items as an on-call service, and provides dumpster pick-up.

Commercial Garbage, Recyclables, and C&D.

Subscription or on-call garbage and recycling collection services for resorts, markets, ports, and other businesses in the county. SJS also offers dumpster and roll-off container pick-up of garbage, recyclables, and C&D debris.

Town of Friday Harbor

The Town Refuse Department provides weekly garbage pick-up service for residents and businesses. The Town also provides semi-monthly residential pick-up of commingled recyclables and yard waste, adjusted seasonally. The Town delivers collected garbage to the San Juan transfer

State Regulation of Certificated Hauler

The WUTC requires that a certificated hauler must comply with local solid waste management plans, including collection areas, service levels, and materials it must collect.

The WUTC administers state regulations on collection and transport of solid waste. In counties, state law grants collection businesses an exclusive right to a particular collection area. WUTC approves a qualified hauler, provides certification for the area, and administers the rules. San Juan County does not select or regulate the certificated hauler.

The WUTC regulates each hauler's rates based on local service level requirements. While each certificated hauler has exclusive right to a collection area, their profit margin is also limited by state regulations.

station for processing and transport to the mainland. San Juan Sanitation collects the Town’s commercial commingled recyclables and transports to the mainland for processing at a MRF.

The Town supplies two-yard dumpsters for C&D debris. Equipment delivery and collection service are both provided on an on-call basis. The debris is combined with MSW for delivery to the San Juan transfer station.

Self-Haul

Many residents and businesses throughout the county collect and haul their garbage and recyclables to the three privately operated County solid waste facilities. Individuals also collect and transport reusable materials to reuse/recycling establishments located at the “Exchange” on Orcas Island and TIOLI on Lopez Island, and to reuse/recycling businesses at various locations countywide (e.g., Consignment Treasures on San Juan Island).

4.4 SOLID WASTE COLLECTION TRENDS

Over the last 6 years, garbage collection has risen from 7,202 tons for 2011 to 10,808 tons in 2016, a 50% increase (refer to Table 10).

Table 10. Tons of Garbage Collected and Brought to County Facilities						
FACILITY	2011	2012 ^a	2013 ^a	2014	2015	2016
San Juan	1,318	--	--	3,249 ^b	4,452 ^{b,c}	5,526 ^{b,c}
Orcas	5,433	--	--	5,994 ^c	4,826 ^c	4,662 ^c
Lopez	451	--	--	567	584	620
Total	7,202	--	--	9,810	9,862	10,808

^aNo reliable data available for 2012 and 2013. ^bIncludes Town of Friday Harbor. ^cIncludes San Juan Sanitation.

Recycling collection has increased from 2,801 tons in 2011 to 3,587 tons in 2016, a 25% increase over 6 years (refer to Table 11 below). The lower garbage and recyclables collected on San Juan in 2014 and 2015 may not be representative of actual tonnage, likely due to the transition from County to private operation of the facilities. In addition, SJS began transporting commingled recyclables directly off-island to a MRF in 2014.

Table 11. Tons of Recyclables Collected at County Facilities ²						
FACILITY	2011	2012 ^a	2013 ^a	2014	2015	2016
San Juan	890	--	--	328	1,202 ^b	960 ^b
Orcas	1,591	--	--	682	654	2,345 ^c
Lopez	320	--	--	274	237	282
Total	2,801	--	--	1,284	2,093	3,587

^aNo data available for 2012 and 2013. ^bIncludes Town of Friday Harbor. ^cIncludes San Juan Sanitation.

Further information on collection is presented in Appendix D.

4.5 PROJECTED COLLECTION NEEDS FOR THE NEXT SIX YEARS

With solid waste facilities available on three islands, 45 percent or more of the garbage would probably continue to be collected by individual haulers. The certificated hauler and Town would probably handle 55 percent or more of the garbage through route collection. Self-haul and packer truck traffic would be somewhere around 75,000 vehicle trips annually.

4.5.1 Collection Needs Under the Primarily Route Collection System

With a countywide route collection system, all customers who live on County-maintained roads can receive collection services. The certificated hauler, SJS, is prepared to provide residential collection for garbage once each week, with alternate week or monthly subscriptions also available. Customers may place cans (a maximum size of 32-gallons capacity) at the collection point, usually at the road end of their driveway. Collection charges to the customers are made on the basis of the number of 32-gallon can loads collected for the residence.

For businesses, SJS will continue to provide weekly or bi-weekly collection of both garbage and recyclables. This service is offered using cans, dumpsters and drop-boxes.

Non-ferry served islands may have the option of a compactor truck or drop box located on their island. For example, SJS provides regular on-call collection of garbage and recyclables for Blakely Island and Decatur Island. SJS is currently evaluating the establishment of collection points on additional non-ferry-served islands for use by their residents.

² Does not include commercial recyclables collected by SJS.

4.5.2 Collection Needs for the Town of Friday Harbor

Friday Harbor is 14 percent of the County population and more than 25 percent of San Juan Island's population. With the projected increase in population over the next five or more years, the Town may require additional collection days and packer trucks to accommodate this growth.

If, for any reason, the Town should decide to discontinue service to Town residents, the County solid waste system has the capacity to assist with Town collection needs.

5 TRANSFER – SOLID WASTE HANDLING FACILITIES

Solid waste transfer includes all activities that prepare collected garbage and recyclable materials for transport to another solid waste facility for further handling or for disposal. This section provides a description and inventory of the current San Juan County solid waste facilities, their operations, and their capacities. The current deficiencies in solid waste facilities are noted along with their descriptions.

5.1 GOALS

The goals in this section are to ensure the County provides reliable solid waste removal and disposal throughout the county as described below.

5.1.1 Provide Technical Assistance to Help Facilities Comply with Regulations and Minimize Adverse Environmental Impacts

The County will continue to provide assistance to the privately operated solid waste facilities to (ECY SWM 12A):

- Ensure recyclable materials are properly sorted and grouped in transport containers; and
- Prevent improper disposal and cross-contamination of sorted and commingled recyclable materials.

San Juan County is responsible to ensure reliable solid waste removal and disposal throughout the county. Notwithstanding any other provision of this Plan, the County reserves the right and ability to operate existing disposal and recycling facilities and locations owned or leased by the County either as part of County government or through a lawfully established disposal district and further reserves the right to impose or retain appropriate and lawful flow control regulations.

5.2 CURRENT TRANSFER SYSTEM

Ecology guidelines for writing solid waste management plans (Ecology 2010a) note that the local solid waste management plan requirements listed in RCW 70.95.090 include a detailed inventory of all solid waste handling facilities and a description of any deficiencies in the handling of solid waste. The following sections provide an overview and detailed description of the three County solid waste facilities, their operations, and any deficiencies.

5.2.1 Inventory of County Facilities

Overview of System as Privately Operated Through 2017

Since 2013/2014, County solid waste disposal facilities have been operated by private-public enterprises. These facilities receive commercial and MSW from county residents and businesses, as well as a variety of special wastes and recyclable materials, and transfer these materials out of the county for final disposal or recycling.

In San Juan County, transfer is currently accomplished at the San Juan Island and Orcas Island transfer stations with a tipping floor used to serve collection vehicles, self-haulers with large loads, and containers of garbage or commingled/sorted recyclables. ORS crew loads and secures trailers for long-haul to the mainland currently by Orcas Freight Lines. The San Juan Island facility crew loads and secures trailers for long-haul to the mainland by Lautenbach Industries. The Lopez site crew secures roll-off boxes of garbage and recyclable materials for hauling to the mainland.

Current hours of operation for the County solid waste facilities (may change seasonally):

- San Juan transfer station, operated by Lautenbach Industries is open Friday - Sunday from 9 am to 4 pm and Monday from 9 am to 12 pm;
- Orcas Island transfer station, operated by ORS is open Thursday - Monday from 10 am to 4 pm; and
- Lopez drop box, operated by the LSWDD is open Friday - Monday from 11 am to 4 pm in the summer months and Friday - Sunday from 11 am to 3 pm the rest of the year.

With the exception of household/business hazardous wastes, which are the subject of special collection events, wastes requiring special handling, such as medical sharps, appliances, batteries, antifreeze, and used motor oil, are held for pickup at the solid waste facilities for disposal or recycling. Special wastes are handled using drop-off containers for each. Individual recycling transporters visit the facilities periodically to remove used motor oil and antifreeze, vehicle batteries, appliances (also known as white goods), and steel. Litter and some noxious weeds are simply added to the garbage. It should be noted that some recyclables taken to the Lopez solid waste facility are sorted from the litter and not

Tipping floors or drop boxes?

Packer trucks, typically used in route collection, must discharge (or tip) their loads onto a tipping floor where the garbage or recyclable material can be pushed into a long-haul trailer.

Self-hauled garbage and recyclables are off-loaded by hand and commonly use drop box facilities where people throw bags or dump cans directly into boxes or trailers.

disposed as garbage. Household sharps, which must have been placed in secure containers prior to collection, are transported separately along with the garbage.

Household hazardous waste collection events are held at the County facilities, but any materials delivered are containerized by a contract crew and removed from the County on the same day. The County recently purchased a hazardous waste storage container for the Orcas transfer station. Once installed, ORS trained personnel will periodically collect and store household hazardous waste in the secured container. The waste will be removed during the County's annual collection events.

The most recent fee schedule for solid waste disposal services on Orcas, San Juan, and Lopez Islands are provided in Appendix E.

San Juan Island

The San Juan solid waste handling facility is located on Sutton Road, two miles outside of the Town of Friday Harbor, and on the same property as the Town's closed ash fill and landfill sites (Figure 2) (Appendix F – Closed County Landfills). The site, which is owned by the Town, is accessed via Sutton Road, a local access road which opens onto Roche Harbor Road, a minor collector road which is the link between Friday Harbor and Roche Harbor. The two-acre site is open 4 days each week and serves the Town and the San Juan Island unincorporated area residential population, as well as local businesses. In 2016, Lautenbach's recording system counted 21,519 vehicles dropping off garbage at this facility, which included traffic from the Town bearing both garbage and recyclable materials, and some garbage and recyclables collected road-side from SJS.

Facility infrastructure includes a vehicle scale, a kiosk/scale house, a covered tipping floor, Z-wall, and a metal shed-roofed building used to cover part of the recycling area and oil storage tank.

The approximately 0.8-acre solid waste disposal facility is leased from the Town, which maintains some of its own infrastructure on the rest of the two-acre property that is not available to the County or the operator for solid waste operations. Town property includes closed landfills, a parking area, and the large metal building at the western edge of the property used by Town solid waste staff and operators.

Services

In 2016, the two- to three-person crew at the San Juan facility handled 5,526 tons of garbage and 961 tons of commingled recyclables. Used appliances, E-waste⁸, batteries, motor oil, steel, wood debris, antifreeze, tires, along with litter, noxious weeds, and medical sharps are also accepted. In 2017, the facility was open to the public 4 days a week.

⁸ The San Juan facility began accepting E-waste from its customers in early summer 2017 after Consignment Treasures located on Roche Harbor Road ceased to provide this service.

Garbage and recyclable fees are primarily based on weight (refer to Appendix E).



Figure 2. San Juan Island Transfer Facility

Deficiencies or improvements needed in the San Juan Island facility

On September 11, 2012, Ecology's Water Quality Program issued an administrative order for modification of permit coverage (Order Docket #9498) to San Juan County to comply with (Ecology 2012):

- Chapter 90.48 RCW – Water Pollution Control,
- Chapter 173-226 WAC – Waste Discharge General Permit Program, and
- Industrial Stormwater General Permit (No. WAR011746).

The administrative order was issued due to stormwater discharges from the San Juan transfer facility exceeding benchmark values for turbidity and copper, which triggered corrective action.

In a letter dated September 16, 2014, the County responded to Ecology's administrative order concerning stormwater deficiencies with planned steps for remedial action (SJCPW 2014). As of September 2017, these remedial actions have been completed including:

- Covering the tipping floor and conversion from a drop box facility to a transfer station;
- Installed run-on/run-off controls to protect stormwater from commingling with industrial stormwater;
- As-built drawing of the storm drainage system for the facility;
- Engineering design, flow calculations, and construction of stormwater treatment bio-swales to promote even flow and dispersion into surrounding property;
- Secondary containment for the 10,000-gallon oil tank;
- Construction of a 12 ft x 10 ft concrete pad for used motor oil and antifreeze storage;
- Vacuum accumulated silt and gravel from existing drain lines with proper disposal;
- Revised Stormwater Pollution Prevention Plan (SWPPP) with changes; and
- Replaced existing asphalt in the active areas of the facility to improve vacuum sweeping and stormwater drainage.

All stormwater improvements have been documented in a revised SWPPP.

Also, partially filled haul trailers need to be covered during facility closure hours to prevent access by birds and spreading of garbage outside the tipping floor enclosure. No other deficiencies or improvements have been identified (refer to Table 12).

Orcas Island

The Orcas Island Transfer Station is located at 3398 Orcas Road, which is the island's major collector road between the State Ferry terminal and the population center in Eastsound (Figure

3). The facility serves the Orcas Island population of an estimated 5,395 persons and numerous businesses, as well as SJS packer trucks, which collect solid waste throughout the County.

The Orcas transfer station operates 7 days a week but it's only open to the general public and commercial customers 5 days a week. The other two days (typically Tuesday-Wednesday) accommodate commercial waste delivery from other islands, transfer of waste from the Orcas Z-wall containers to long-haul trailers, and general maintenance.

The daily crew for the Orcas transfer station is made up of two to three persons depending on the day of operation. This crew served the 29,189 vehicles (including 610 SJS packer trucks) recorded as delivering solid waste to the facility in 2016. The infrastructure at the facility is a vehicle scale, a scale house, an enclosed tipping floor and long-haul trailer bay, and a Z-wall drop box area.

The Orcas transfer station occupies about four acres of the County-owned 14 acres which also includes the closed Orcas landfill (refer to Appendix F). The recently rebuilt Exchange, a not-for-profit reuse facility is also located on the County site. The Exchange accepts items from the general public and offers them for sale. Details about the Exchange can be found in Section 3.3.

Services

In 2016, the Orcas transfer station handled 4,662 tons of garbage (including 2,115 tons from SJS) and 803 tons of commingled recyclables. The Orcas facility also provides local collection services for used vehicle/marine batteries, appliances, motor oil, antifreeze, tires, E-waste, medical sharps, and steel. It accepts garbage from SJS packer trucks and from self-haulers.

Fees for garbage and recycling are charged by the 32-gallon can and weight (refer to Appendix E). Special wastes are also assessed fees by unit or by volume. Special wastes are placed in containment areas or containers and held for transport to the appropriate facilities.

Deficiencies or improvements needed in the Orcas Island Transfer Station

Site deficiencies or improvements listed in Table 12 include inadequate cover for some collected materials, facilities, and equipment. Also, partially filled haul trailers need to be covered during facility closure hours to prevent access by birds and spreading of garbage outside the tipping floor enclosure.

In addition to these issues, the steel building enclosing the tipping floor is showing signs of age that will need to be corrected in the near future. These signs include bends in steel structural supports, damage to the entrance of the structure, and movement of the support columns on the north wall. The structure sustains repeated small impacts from waste and from the equipment that is used to deliver and move waste².

² In July 2017, one of the support columns at the entrance of the long-haul trailer bay was damaged due to operator error.

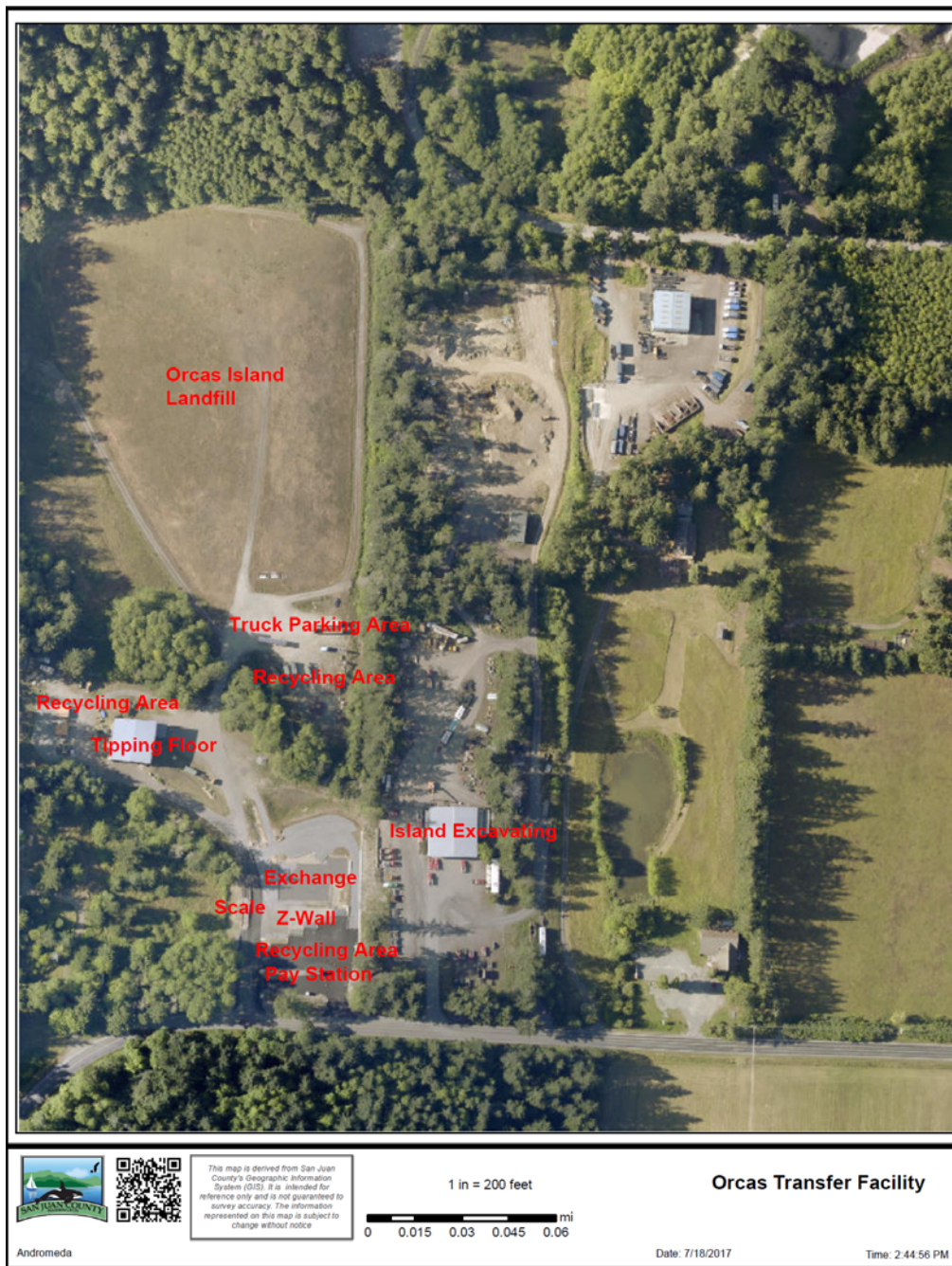


Figure 3. Orcas Island Transfer Facility

Lopez Island

The solid waste facility is located just south of the Lopez Village UGA boundary. It is accessed from Fisherman Bay Road, the major collector road that runs to the ferry terminal (Figure 4).

The Lopez drop box is about 0.5 acres of the overall 1.5 acres shared with the County Roads

Division. The structures on the site are a cashier’s booth or kiosk and an open-sided shed that contains a baler and facilities for storage of used oil, antifreeze, batteries, and medical sharps for recycling or special handling. The site also has a Z-wall, containers for garbage, commingled and separated recyclables, and a metal shed that houses a reuse operation, the TIOLI. The crew at the Lopez drop box facility is made up of three or more staff and volunteers and the facility is open 4 days a week in the summer¹⁰. It serves the Lopez population of approximately 2,500, and 23,169 vehicles were counted at the facility in 2016.

Services

In 2016, the Lopez facility handled 498 tons of garbage, 123 tons of inert waste (glass), and 282 tons of recyclables. Lopez is a drop-box facility, with no scale or tipping floor, so the facility services are only available to self-haul customers. The Lopez disposal facility is not constructed or operated to serve the certificated hauler. The Lopez drop-box handles garbage, commingled recyclables, separated recyclables, appliances, batteries, motor oil, antifreeze, medical sharps, and recyclable steel. Most fees at this facility are based on volume, with certain fees assessed for specific items such as mattresses and stuffed furniture.

The Lopez facility’s self-haul customers place garbage into 40-cubic-yard roll-off boxes that are positioned at the Z-wall. Commingled recyclables are separated onsite by volunteers and separated recyclables are placed into storage containers before baling and transport to the mainland. The exception is clean glass, which is transported to Lopez Sand and Gravel for disposal at their permitted inert waste landfill¹¹. The Lopez facility transports the garbage filled roll-off boxes to Skagit County transfer station for disposal. Separated recyclables, other than glass, are transported to Skagit River Steel and Recycling Company for processing.

The “TIOLI”, located at the Lopez facility, is a Lopez District-funded reuse facility. It is operated by both volunteers and paid Lopez facility staff. The TIOLI accepts items from the general public and offers them for reuse at no charge. Details about the TIOLI can be found in Section 3.3.

The LSWDD was established by Ordinance 11-2012, and a Lopez Disposal District Board was established. Management of the Lopez facility transitioned to the LSWDD Board.

Deficiencies or improvements needed in the Lopez Island facility

The Lopez facilities experience similar deficiencies as the other two County facilities. They are listed in Table 12 along with the Orcas and San Juan facilities.

¹⁰ The summer schedule (June 21-September 21) is Friday – Monday from 11 am to 4 pm but TIOLI is not open on Monday’s. The fall-winter schedule (September 22 – June 20) is Friday – Sunday from 11 am to 3 pm.

¹¹ LSWDD received a solid waste permit to transport their clean glass to the inert landfill at Lopez Sand & Gravel located on Channel Road. This action was formalized through a County ordinance (6-2016) adopting an amendment to the 2012 Solid Waste and Hazardous Waste Management Plan and San Juan County Code 8.12.030.

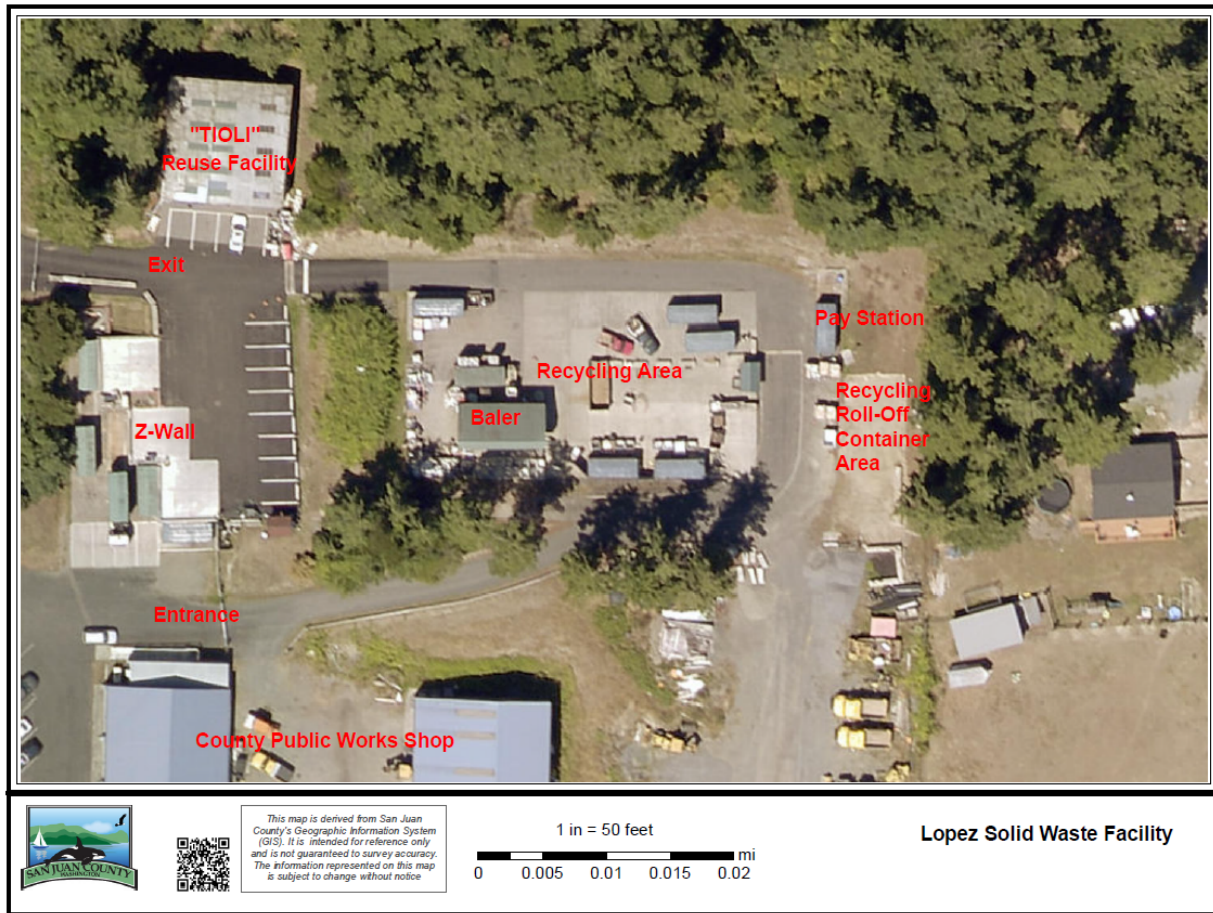


Figure 4. Lopez Island Drop Box

5.2.2 Implementing Repairs and Improvements to County Solid Waste Facilities

Continuing private operations at the three County disposal facilities requires continued investment in the existing sites and structures to address the deficiencies listed in Table 12. Correcting the deficiencies would require capital investment in waste storage structures and in pavement repair and/or replacement. The capital projects and their associated cost estimates are listed in Table 13, which is based on a preliminary assessment of capital improvements that would be needed to continue operations at each of the facilities in the near-term.

DEFICIENCIES AND IMPROVEMENTS	Orcas Transfer Station	San Juan Transfer Station	Lopez Drop Box
Garbage containers occasionally leak	X	X	X
No long-haul trailer tarping station	X	X	n/a
Inadequate covered equipment parking	X	X	X
Tipping floor enclosure may need repair	X		n/a
No vehicle scale to weigh solid waste delivered to the facility			X
Cover for partially filled haul-trailers (during closed hours)	X	X	n/a

	ESTIMATED COSTS
1. <u>Lopez Drop Box Facility</u> would need capital improvement projects (CIP) including a covered structure or container for white goods storage, safety railing for the Z-wall, safety structure for the glass roll-off box, extension of paving north of baler, and expanding shelving for TIOLI.	\$25,000
2. <u>Orcas Island Transfer Station</u> would need a series of CIP, including a structural assessment of the tipping floor building and possible repair, and pavement resurfacing.	\$45,000
TOTAL ESTIMATED COST FOR NEAR-TERM IMPROVEMENTS	\$70,000

Long-term (over the next 6 years) CIP are presented in Table 14. These improvements are generally associated with expanding services (e.g., composting, hazardous waste collection) at each County facility.

Table 14. Solid Waste Capital Improvements (6 Year CIP)	ESTIMATED COSTS
To continue operating two transfer stations and one drop box disposal facility:	
1. <u>Lopez Drop Box Facility</u> long-term CIP may include a hazardous waste storage container and expansion of the TIOLI facility.	\$150,000
2. <u>Orcas Island Transfer Station</u> long-term CIP may include structural repairs to the tipping floor and long-haul trailer bay, expansion of composting including processing of food waste, and expansion to sortable recyclables.	\$200,000
3. <u>San Juan Transfer Station</u> (<i>on Town property or adjacent County property</i>) long-term CIP may include a hazardous waste storage container and expansion of facilities for white goods, E-waste, recyclables, and composting.	150,000
TOTAL ESTIMATED COST FOR LONG-TERM IMPROVEMENTS	\$500,000

6 TRANSPORT AND DISPOSAL OR RECOVERY

In this section, transport describes the use of a vehicle to deliver garbage to a landfill for disposal or to deliver recyclable materials to any MRF from intermediate solid waste handling facilities.

At this time, the County's transport system for each privately run operation includes the movement of garbage, commingled and sortable recyclable materials from San Juan County to a landfill or to a MRF. All waste begins its journey in an over-the-road trailer loaded onto a ferry for Anacortes. Transport may also include rail travel. The final destination for garbage is a landfill. For commingled and sortable recycling, it is a MRF. Other recyclables will end up with various reclamation service providers.

6.1 DISPOSAL AND RECOVERY GOALS

The County will maintain and carry out its responsibility to ensure disposal of garbage and recovery of recyclable materials at locations that comply with regulations that protect public health and the environment. Any private company or disposal district operating County solid waste facilities in the County will be responsible for transport to disposal or MRF's in accordance with all applicable State and County regulations. The County discourages private property disposal on single-family farms and residences and will work together with the County Health Department, the Agricultural District, and other organizations to discourage and restrict this practice (ECY SWM 11C).

6.2 CURRENT SYSTEM

The San Juan County Public Works Department coordinates the private operation of solid waste disposal and facilities in the County. Solid waste is collected at transfer facilities located on San Juan Island and Orcas Island, and a drop-box facility on Lopez Island. Solid waste is also collected curbside on ferry served islands and in dumpsters on non-ferry served islands by a state certificated hauler, and shipped via ferry or barge to either the San Juan or Orcas transfer stations. Once transported to the mainland, all solid waste is either transported by rail or long-hauled to a state-approved regional landfill in Washington.

The islands experience a large seasonal increase in population due to part-time residents and tourists. The aggregate waste volume in the peak months (July-August) is approximately double the lowest winter months (January-February). Approximately 25 percent of the solid waste stream is diverted for recycling purposes.

6.2.1 Garbage

The solid waste collection facilities are located on San Juan, Orcas, and Lopez islands. San Juan and Orcas islands can individually process up to 30 tons of solid waste daily, and Lopez can

process up to 10 tons per day. Tractor-trailer trucks, with a capacity of 140 cubic yards each, haul solid waste to the mainland from the Orcas and San Juan facilities. Smaller 40-yard box trucks are used by the Lopez facility to haul solid waste to the mainland.

San Juan Island

The public either self-hauls waste to the San Juan transfer station on Sutton Road or contracts for pickup with the Town of Friday Harbor (Town residents only) or SJS. Refuse is deposited directly into a 48-foot-long trailer from a covered tipping floor at the San Juan transfer station. Lautenbach Industries transports all refuse that comes to the transfer station (including self-haulers, SJS – San Juan Island only, and the Town) to the Cowlitz County landfill for disposal. The number of daily trips is limited by the ferry schedule.

Orcas Island

The public either self-hauls waste to the Orcas transfer station located on Orcas Road or contracts for pickup with SJS. Orcas Freight Lines currently transports all refuse that comes to the Orcas transfer station (including Orcas, Shaw, the outer islands and the SJS from Lopez) for ORS to the Skagit Rail Yard on the mainland. The refuse is then loaded on railcars and transported to the Republic landfill in Roosevelt, Washington for disposal. The number of daily trips is limited by the ferry schedule.

Lopez Island

The public either self-hauls waste to the Lopez drop-box facility located on Fisherman Bay Road or contracts for pickup with SJS. Refuse is deposited directly into 40-yard boxes and the Lopez Solid Waste facility picks the boxes up on a roll-off truck and transfers them to the Skagit Transfer Station on the mainland where it's loaded on railcars and transported to the Republic landfill for disposal. The number of daily trips is limited by the ferry schedule.

6.2.2 Recyclables

Recycling drop-off centers are provided at each privately operated waste facility on San Juan, Orcas, and Lopez Islands. Commingled (mixed) recyclables are collected at the San Juan and Orcas transfer stations and curbside by the Town and SJS. Sortable recyclables are collected at the Lopez drop-box facility.

San Juan Sanitation provides the Shaw, Decatur, and Blakely Island communities with on-call collection service of commingled recyclables.

San Juan Island

The San Juan transfer station currently accepts commingled recyclable materials including glass, plastics, ferrous and non-ferrous metal, white goods, antifreeze, aluminum cans and foil, tin cans,

cardboard, bulk paper, newspaper, and used oil. The Town offers curbside commingled recycling services within the Town limits. In the County and Town (commercial only), SJS provides curbside commingled recycling services.

Lautenbach's and SJS transport commingled recyclables to a MRF in Seattle and Woodinville, Washington, respectively. At the MRF, commingled recyclables are sorted into commodities such as plastic, paper, or various metals, so that they can be used as materials for remanufacture. Scrap metals and appliances are taken to Skagit River Steel and Recycling Company, among other facilities on the mainland.

Electronic-waste (E-waste) is collected at the San Juan transfer station and transported by Lautenbach's to various permitted processors in the Puget Sound area.

Orcas Island

The Orcas transfer station accepts commingled recyclable materials including glass, plastics, ferrous and non-ferrous metal, white goods, batteries, fluorescent bulbs, antifreeze, aluminum cans, tin cans, bulk paper, cardboard, newspaper, and used oil. White goods are stockpiled and transported to the mainland for eventual compaction and recycling.

ORS and SJS transport commingled recyclables to a MRF in Woodinville, Washington for processing and remanufacture. Scrap metals and appliances are taken to Skagit River Steel and Recycling Company.

E-waste is collected by ORS and currently transported by Orcas Freight Lines to various permitted processors in the Puget Sound area.

Lopez Island

The Lopez Island drop-box facility accepts a wide-range of sortable recyclables including glass, plastics, ferrous and non-ferrous metal, white goods, antifreeze, aluminum cans, tin cans, cardboard, newspaper, bulk paper products, and used oil. Sorted recyclables are transported by LSWDD and Lopez Island Freight to Skagit River Steel in Burlington, Washington for processing.

6.2.3 Composting

There are yard waste composting facilities available on San Juan, Orcas and Lopez Islands. The Town collects yard waste curbside for its residents and it is taken to Mike Carlson Enterprises for composting, mulch, or use as fuel. Currently, there is no permitted self-haul composting facility on San Juan Island.

On Orcas Island, residents and businesses can drop-off clean, green yard waste at the Orcas Island transfer facility. The yard waste is turned into mulch for resale. Midnight's Farm on Lopez is the only Ecology, conditionally-exempt composting facility in the County. Residents

and businesses can drop-off various types of yard waste at no charge. Mixed with manure and other agricultural products in a static aerated bin system, the resulting screened compost is also available for resale.

6.2.4 Household hazardous waste disposal

No industry in the County has been identified as a hazardous waste generator. There are Conditionally Exempt Small Quantity Generators (CESQG) in the County and household hazardous waste generators. This waste is handled through annual collection events offered on San Juan, Lopez and Orcas Islands. The County also offers collection events occasionally on Shaw Island and the outer islands (i.e., Stuart, Waldron, Decatur, and Blakely). These are one-day events that are advertised in local media and accept waste from all the islands. A private contractor is engaged to package, ship and arrange treatment or disposal of the waste. Section 9, the MRW Plan, contains additional details of this program.

In addition, the County recently purchased a hazardous waste storage container for the Orcas transfer station. Once installation is complete (expected late 2017), ORS trained personnel will periodically collect household hazardous waste from its customers for temporary storage. The wastes will be transported off-island for proper disposal during the County’s annual collection events.

6.2.5 Biomedical waste disposal

The San Juan County Health Department has published guidelines for biomedical waste generators that include segregation from other wastes, containment, and treatment prior to disposal [refer to County Code 8.14.030(J) which requires biomedical waste to be treated prior to disposal]. Generators that do not have the facilities to provide treatment can contract with private providers that can provide transportation, treatment and disposal options.

Biomedical waste goes to professional medical service providers. Several links to companies that provide these services are listed below. Generators can locate other companies via the internet by searching “mail-back sharps” or “biomedical waste disposal” ^{12,13,14,15,16}.

However, biomedical wastes generated from self-treatment and disposed of with residential waste from a single family residence are exempt from these requirements.

¹² <http://www.stericycle.com/>

¹³ <http://www.biomedicalwastesolutions.com/>

¹⁴ <http://www.sharpsdisposal.com/>

¹⁵ <http://www.hcstoday.com/>

¹⁶ <https://www.medprodisposal.com/>

Recommendations for Disposal of Needles/Syringes (Residential Sharps).

Sharps must be contained in rigid, puncture resistant, leak proof containers made of materials such as metal or plastic, designed to prevent the loss of the contents. The containers must be labeled clearly with a visible biohazard symbol and the words "Biohazard" and "Sharps."

6.2.6 Special Wastes

Certain wastes have different transport and disposal needs. The current handling system for tires is to accept them at the County facilities and then to put them at the top of the load for long-haul, so that they may be handled separately upon arrival. Both used motor oil and antifreeze are periodically collected by ORRCO (Oil Re-Refining Company), with the exception that some of the oil is reused as fuel for the heaters in the San Juan Island road equipment shop on Guard Street and in the Lopez shop. Automobile batteries are collected at the County facilities and transported to the mainland for recycling. Lopez Solid Waste sends car and boat lead-acid batteries to Skagit Steel and Recycling and non-lead-acid rechargeable batteries to Call2Recycle in Texas. Lautenbach's only accepts lead-acid batteries, and they send them to "Scrap-It" located in Bellingham. All batteries collected at ORS are transported to Battery Sales & Service in Everett for recycling and reuse.

6.2.7 Biosolids

Eastsound sewage treatment plant on Orcas Island delivers desiccated biosolids to the Orcas transfer station for disposal. The biosolids are mixed in with MSW and transported off-island by Orcas Freight Lines.

The Town produces Class B biosolids from its sewage treatment plant and burns it or hauls it off-island. The biosolids are transported to the mainland by Lautenbach Industries for disposal.

7 EDUCATION AND OUTREACH

Education and outreach programs are essential to effective solid waste management. The people using the system must be well informed of their options for discarding waste and about preparation or sorting required for discarding items for recycling. Waste reduction is a primary goal statewide and programs to educate and promote waste reduction and recycling are listed in state requirements for solid waste management plans (RCW 70.95.090(7)(b)(iv)).

As previously stated, the County's solid waste management system and how it is funded have undergone major changes. Education and outreach should reinforce the community's values, familiarize the public with changes that are coming to collection and other systems, and clarify expectations for the system's users.

7.1 GOALS

In general, the goals for education and outreach emphasize networking and sharing information that will help keep the county population and their environment healthy. The County should continue to develop and provide - not just information - but promotion, education, and outreach services that will support local efforts to reduce the volume and toxicity of waste in San Juan County.

The County will provide information to the public and to businesses, promote education, and outreach services in support of local efforts to reduce the volume and toxicity of waste. Specifically, the County will:

- Develop and distribute positive, culturally effective messages with information about the benefits of composting and using compost (ECY INFO 5);
- Develop and distribute messages about the benefits, practices, and economics of waste reduction and recycling, including costs and benefits of recycling and connections between waste, resources, materials, and climate [include awareness of overconsumption and waste reduction (ECY INFO 6A)];
- Partner with collection companies and transfer facility operators to educate their customers on full-cycle waste reduction (ECY INFO 6C);
- Ensure public notice about collection events, development of composting facilities, and any training sessions are widely available; and
- Provide resources for school and after-school programs, familiarize educators and students with important waste management practices, and be available to advise on school-related projects.

The County will provide materials, publicity, and training for volunteer projects such as litter collection, expand networks with counties, working groups and agencies to share and learn effective waste management practices. The County will also maintain participation with the Washington Association of Counties' Solid Waste Caucus and Washington State Recycling Association.

7.2 CURRENT PROGRAM ELEMENTS

The County Public Works Department has been providing education and conducting public outreach for several years. Waste reduction, reuse, recycling, and composting have been promoted through the County's waste management program and website.

7.2.1 Education Programs

Available Everyday

The Public Works Department makes information available any day via the County website for Waste Management¹⁷. The Solid Waste Program Administrator is available by phone and email to provide answers to questions about how and where to participate in reuse and recycling programs, hours of operation and fees at County solid waste facilities, updates on scheduled collection events, electronics recycling center locations, and other waste-related issues. Public Works Department outreach includes printed materials and press releases to local media to announce scheduled events or to spread the word about new opportunities for better waste management.

The County solid waste website, provides information about waste reduction, reuse, recycling, composting, and disposal:

- Waste Management – recent news on waste reduction, reuse, recycling and disposal, planned, and CESQG registration.
- Hazardous Waste – detailed information on the County's planned collection events with details on the wastes that are and are not accepted.
- Solid and Moderate-Risk Waste Management Plan – updated information on the current version of the plan including applicable County resolutions and ordinances.
- Composting – information on where residents and businesses can take their yard waste and plans for building your own backyard composting bin.
- Solid Waste Advisory Committee – information on the committee members, meeting agendas and minutes.
- Links – applicable links to resources on each web page including County solid waste operators and hours of operations, medical waste disposal, and compost facilities.

¹⁷ <http://sanjuanco.com/342/Waste-Management>

Partnering for Outreach

County Fair

Public Works staff and volunteers often work and circulate at the annual County Fair, promoting the recycle bins and answering questions about recycling. There have also been discussions on conducting a pilot-study on waste diversion within the food court at the fair in 2018 or 2019. The pilot-study would attempt to reduce contamination of recyclables and include containers for sorting recyclables and food waste.

Workshops and Events

Composting workshops have been offered to residents of all the islands in conjunction with the San Juan Islands Conservation District and other partners each spring. A list of online composting resources is distributed at each workshop. Farming and gardening agencies and local non-profit organizations (WSU Master Gardeners, WSU Extension Agriculture Program, San Juan Islands Conservation District, SJC Agricultural Resources Committee) have all participated as partners.

Annual household and business hazardous waste collection events held at County facilities offer the opportunity for face-to-face education about waste reduction and reuse options.

Program-Specific Education

Waste Reduction

Waste reduction requires persistent public education since most actions for waste reduction rely on personal choice.

Recycling and Reuse

The Lopez solid waste facility has created an online volunteer work schedule for assisting with the sortable recycling program at the Lopez drop box. Volunteers assist the public with selecting the correct tippler/bins for each recyclable including various plastic recyclables, glass, tin and aluminum cans, paper products, and special wastes (e.g., batteries). TIOLI has continued to increase in popularity in the County, accepting everything from clothes, books, and toys to windowpanes, doors, and various tools. Donated items are available at no charge to the public.

The Orcas and San Juan transfer stations are also planning to move from a commingled recyclable program to include sortable recyclables¹⁸. They have been working with the Lopez facility on evaluating methods that may work with their facility in the near future. With the recent construction of the Exchange by the County, ORS will also have an active reuse facility available for residents, businesses, and visitors to Orcas Island.

¹⁸ Due to market changes, San Juan transfer station has discontinued accepting commingled recyclable, and currently accepts only sortable recyclables including aluminum cans, cardboard, metal (including tin cans), and wood.

Consignment Treasures is a non-profit reuse facility on San Juan Island. Reuse and recycling of various materials is a diversion from garbage and ultimately the landfill.

Composting

As previously mentioned, there is an Ecology conditionally-exempt composting facility available to residents and businesses at Midnight’s Farm on Lopez. Yard waste is accepted at the Orcas transfer station and Mike Carlson Enterprises on San Juan Island (Town collection only). The yard waste is ground into a mulch for resale at the Orcas facility. At Carlson’s facility, yard waste is mixed with other green and brown organic waste for mulch and other uses (e.g., fuel). The County has plans to work with these facilities and potentially others in expanding composting of yard waste and other feedstock, possibly including food waste.

Household Hazardous Waste

Waste reduction has been the primary focus of the County’s education efforts for both households and businesses, promoting non-toxic or less toxic alternatives to cleaning, repair, maintenance, and gardening supplies. Information about recycling used motor oil and antifreeze and disposal of household hazardous waste materials is also provided. Additional business outreach is carried out in conjunction with each of the privately operated solid waste facilities.

7.3 PROGRAM DEVELOPMENT

The County’s waste management program will build on its experience with education and outreach programs to improve the information and outreach for waste reduction, recycling, and reuse. The education program will give advance notice to citizens of any changes to the system and how that may affect them. County education and outreach programs will cultivate partnerships and diversify approaches to delivering both major messages and detailed information to county residents, tourists, businesses, and government. For example, the “Bring Your Own Bag” campaign encourages residents and visitors to use reusable bags (preferably not plastic) when shopping in the County.

7.3.1 Demographics and Speaking to Specific Groups

In considering the types of messages people may respond to, and the variety of learning styles that any given group of people may represent, it is useful to look at the County demographics (refer to Appendix G).

Average income is high. The U.S. Department of Commerce, Bureau of Economic Analysis estimates that the average per capita income in San Juan County in 2015 was \$66,255, ranked second behind King County. The Washington state average was \$51,898. Further, the personal income source for San Juan County residents is primarily from dividends, interest, and rents; less from net earnings in the place of residence.

In 2015, the largest population segment in the county was between the ages of 60 to 69, with 55 as the overall median age. Generational cohort should group programs and media by income and by personal interests to strategize the means to engage people in solid waste programs and initiatives.

7.3.2 Partnering with Not-for-Profit, Government, and Local Business Groups

The County should continue to explore expanding partnerships for public education to promote waste reduction, reuse, recycling, and environmental protection.

7.3.3 Public Recognition

The County should offer programs and awards that publicly recognize individuals, businesses, and agencies that exercise leadership and accomplishment in waste reduction, reuse, recycling, and environmental protection.

7.3.4 Monitoring

The County should monitor the effectiveness of various promotion, education, and outreach initiatives and techniques using website counters, database logs, surveys and interpersonal communication.

7.4 PROVIDING INFORMATION

The County, the Town, solid waste operators, and the certificated hauler share the responsibility to make information readily available about route collection, types of materials that can be recycled, where and how bulky items and special wastes may be handled if self-haul is not available.

Many of the following businesses are already available to County residents. However, this material will become dated, contact any provider listed below to ensure that they will take specific items.

OPTIONS FOR SOLID WASTE DISPOSAL, REUSE, AND RECYCLING

GARBAGE AND RECYCLING

- Call San Juan Sanitation Company at 360-376-4709, for route collection schedule, collection points, and rates (<http://www.sanjuansani.com>)
- Call Town of Friday Harbor Refuse at 360-378-2130, for route collection schedule and rates (<http://www.fridayharbor.org>)
- Call San Juan Transfer Station at 360-378-8449 for information on hours of operation and accepted materials (<http://sanjuantransferstation.net>)
- Call Orcas Recycling Services at 360-376-4089 for information on hours of operation and accepted materials (<http://www.exchangeorcas.org>)
- Call Lopez Solid Waste Disposal Facility at 360-468-2555 for information on hours of operation and accepted materials (<http://www.lopezsolidwaste.org>)

- Call the County Solid Waste Program for collection points and additional information at 360-370-0534 (markh@sanjuanco.com)

BULKY ITEMS

- Call San Juan Sanitation Co. at 360-376-4709 and the Town at 360-378-2130 for pick up and rates

REUSABLE ITEMS

- Orcas - haul items to The Exchange
- Lopez - haul items to the TIOLI
- San Juan – haul items to Consignment Treasures
- All Islands - take to local thrift and resale shops, such as Friday Harbor Fire Fighters Association Thrift House, Lopez Thrift Shop, Score Nifty Thrifty, Second Act, etc.

SCRAP METAL, USED MOTOR OIL AND ANTIFREEZE, LEAD-ACID BATTERIES

- San Juan Transfer Station, Orcas Recycling Services, and Lopez Solid Waste Disposal District
- Port of Friday Harbor for lead-acid batteries, boats only
- NAPA and other local sales and services businesses for lead-acid batteries

ALKALINE BATTERIES

- Orcas Recycling Services
- Ace Hardware store, Friday Harbor and Anacortes

APPLIANCES

- San Juan Island, Consignment Treasures for pickup and fees (360-370-5562)
- Orcas Exchange – fees apply
- San Juan Sanitation Co. – deliver to Orcas facility - fees apply
- Lopez Solid Waste Disposal District – fees apply

ELECTRONICS (computers, laptops, monitors, televisions) – free recycling

- Orcas Recycling Services
- Lopez Solid Waste Facility
- San Juan Transfer Station

COMPACT FLUORESCENT BULBS (CFLs)

- Orcas Power & Light Cooperative (OPALCO) offices on Orcas and San Juan Islands – free recycling drop-off
- Lopez Solid Waste Disposal Facility and Orcas Transfer Station – free recycling drop-off

CONSTRUCTION AND DEMOLITION DEBRIS

- San Juan Island - Consignment Treasures
- Orcas Island - Orcas Exchange
- Bellingham (recycle) - The RE Store,
- Burlington - Lautenbach Industries

BIOMEDICAL WASTES

- Contact the San Juan County Health Department for treatment and disposal requirements
- Put residential sharps used for self-treatment in a rigid container for disposal

PRESCRIPTION MEDICATIONS

- Contact the San Juan County Sheriff's office for drop-off information (360-378-4151)
- Contact the Friday Harbor Drug Store (360-378-4421) and Ray's Pharmacy on Orcas Island (360-376-2230) for drop-off information

8 REGULATION, ADMINISTRATION & ENFORCEMENT

In 2012, the County took steps to transition from a primarily self-haul system to a primarily route collection system. These steps included:

- Preparing and adopting a level-of-service ordinance to establish regulations that require route collection of recyclable materials (Accomplished April 3, 2012 in Ordinance No. 2-2012, amended with Ordinance No. 9-2012);
- Ensuring that services for collection or drop-off of all recyclable materials and special wastes remain available to County residents and businesses;
- Developing an interlocal agreement with Skagit County;
- Completing the solid and hazardous waste management plan (SJC 2012) and the public and agency review process through County Council adoption and State agency approval;
- Establishing and implementing a process to lease county solid waste sites to qualified service providers;
- Ceasing County operations at solid waste facilities;
- Processing solid waste handling equipment for surplus; and
- Ensuring county residents and businesses were informed about these transitions.

Since 2012, the County has completed the transition to privately operated facilities on San Juan, Orcas, and Lopez Islands and has increased services for curbside collection of garbage and recyclables throughout most of the County through its certificated hauler SJS. Overall, the transition went smoothly and the individual private operations have been successful.

The Town of Friday Harbor has also increased curbside collection of garbage and recyclables, recently adding collection of yard waste for its residents.

This section provides information on the regulation, administration and enforcement procedures for solid waste management.

8.1 GOALS

The County's overall goals for administration are to ensure human and environmental health within a sustainable and fiscally sound system, as described in the following subsections.

8.1.1 Meet Governmental Public and Environmental Health Responsibilities

- Ensure regular availability of collection for solid waste, recycling, moderate risk waste, and special waste;

- Require transport to a legally approved solid waste handling facility in any contracts with waste service providers;
- Maintain local regulations to ensure adequate levels of service for garbage and recycling and route collection of bulky and other special waste services;
- Maintain monitoring of the closed landfills on San Juan and Orcas Islands; and
- Continue to fund debt service.

8.1.2 Expand Opportunities for Waste Reduction and Recycling

- Examine feasibility of land use designations to include community composting and identify any properties which may be appropriately designated for waste reduction activities;
- Work with County Community Development to create or amend land use designations that will accommodate recycling and composting use in appropriate areas;
- Examine land use designations and any permitting that may accommodate recycling or handling E-waste or other special wastes; and
- Encourage solid waste facilities management to offer a full range of waste reduction and special wastes drop-off to the public (ECY SWM 7C).

8.1.3 Develop and Administer Contracts for Waste Management Facilities

The County will continue to develop and administer contracts for waste management facilities in accordance with state and local health department requirements. Collection arrangements, including scheduling, fees (regulated by WUTC), bulky or special waste collection, and methods of sorting for recyclable collection, will be made directly between the generator and the certificated hauler.

8.1.4 Ensure Waste Reduction Programs and Public Information

The County will ensure waste reduction programs and public information are maintained, which are essential to effective solid waste management. The County will also continue to commit annual funding to programs for waste reduction, reuse, and collection events.

8.1.5 Provide Island Communities Greater Opportunities for Self-Determination

The County will continue to provide opportunities for local control of operations, including leasing county facilities, establishing disposal districts, and partnerships with not-for-profit organizations.

8.2 REGULATIONS: BACKGROUND AND RESPONSIBILITIES

Acting within the requirements of local, state and federal regulations, counties in Washington State are responsible to see that solid waste systems are in place. Some of these regulations

address the entire scope of solid waste, and others are specific to particular activities, such as collection; to specific classes of waste, such as electronics; or even to particular items, such as batteries. Furthermore, other laws and regulations related to planning, safety, and utilities, while they are not specific to solid waste, may also affect County operations. The intent of this section of the revised Plan is to provide an overview of how solid waste systems are regulated and to touch on specific regulations that have the greatest influence on the structure and function of the solid waste services that are available to County residents.

Federal solid waste regulations focus primarily on disposal and on controlling or monitoring disposal operations and their impact on the environment. The EPA is the federal regulatory agency for solid waste regulation and works with individual states to ensure they meet federal regulations. In Washington, this has been accomplished by the State adopting disposal and environmental monitoring regulations that are at least as stringent as the federal regulations.

In addition to reiterating the federal regulations, Washington's solid waste regulations include more specific requirements for the construction and operation of solid waste facilities, such as transfer stations and drop boxes. The State adds regulations regarding the availability of recycling services and the handling of various specific items such as medical sharps and batteries.

The State assigns the responsibility for carrying out the regulations to the Counties through the required local solid waste management plans.

While the State regulations set facility requirements, inspection of those facilities is accomplished through local health departments. The San Juan County Board of Health has adopted the state regulations related to facility operations, as well as more specific requirements for how individuals may store and dispose of their wastes.

8.2.1 Washington State Solid Waste Laws and Regulations

The following is a short synopsis of pertinent sections of Washington's solid waste laws and regulations that relate to some of the issues being discussed in San Juan County. They are detailed in the statutes of RCW and in the rules of WAC. County regulations are detailed in the SJCC.

Local Governments are Responsible for Solid Waste Management

RCW 70.95.010(6)(c) is the regulation that requires the County to manage solid waste. The current solid waste system (collection, transport, and disposal) is currently operated by private companies. However, the County is ultimately responsible for the actions of those companies and must provide a system or to assure that another qualified company does, should any of those companies fail to carry out their contract.

Other sections of this law allow incorporated towns and cities (like the Town of Friday Harbor) the option of developing their own solid waste programs or developing a joint program with the

County. In 2010, the Town of Friday Harbor decided to develop a separate program and completed its own comprehensive solid waste and moderate risk management plan in 2014 (TOFH 2014). However, the Town has participated with the County in preparing this revised Plan.

Counties Authorized to Operate Solid Waste Systems

RCW 36.58.040 authorizes county councils to create and manage solid waste systems through a variety of means including direct operations and contracts with non-County firms.

Development of Solid Waste Plans

RCW 70.95.080 includes the basic requirement of preparing a coordinated, comprehensive solid waste management plan, and describes the handling methods and services that must be included in it. This statute relates to garbage disposal, but it focuses more on the separation of resources from the garbage and promotes recycling, reuse, and waste reduction.

RCW 70.95.090 specifies the elements that must be included in solid waste management plans.

RCW 36.58.045 gives Counties the authority to impose a fee on collection companies to fund the administration and planning expenses of complying with RCW 70.95.090, comprehensive solid waste management plans. If such a fee is imposed, the county must notify the WUTC and the affected solid waste collection companies of the amount of the fee 90 days prior to its implementation.

Private Recycling and Waste Collection

Some portions of State law make specific requirements for involving certain groups at certain times in the planning process. RCW 70.95.167 requires the County SWAC to work with non-County-operated recycling firms and solid waste collection companies to include them in the development of recycling and collection programs.

Establishing a Solid Waste District and an Excise Tax

RCW 36.58.120 and RCW 36.58.140 enable counties to establish disposal districts and collect excise tax, but they do not require those actions. In 1996, San Juan County did choose to establish a disposal district and take advantage of the taxing authority through development of the County Code Section 8.12. Et seq. In 2012, the boundaries of the San Juan County General District and LSWDD were established (SJC Ordinance 11-2012) and an excise tax was set at 16% for self-haul customers and on gross revenue for solid waste collection companies (SJC Ordinance 16-2012). The San Juan County General District is separate from the LSWDD. The excise tax for the General District was lowered to 14.5% percent in 2015 (SJC Ordinance 17-2015). The rate at the LSWDD did not change and is currently 16%.

The SJC General District does not include the Town, as the regulation does not include incorporated towns or cities. In addition, the Town is not charged an excise tax at County

facilities. The Town provides its own source of funding through taxes for solid waste collection and transport to the San Juan transfer station.

All Counties are Required to Have a Hazardous Waste Plan

RCW 70.105.220 requires counties to develop hazardous waste plans. San Juan County has a hazardous waste management plan that was approved in 2012 (SJC 2012). The County's hazardous waste plan has been revised along with the solid waste plan.

Standards for Construction and Operation of Solid Waste Facilities

Chapter 173-350 WAC contains the solid waste handling standards for the state as developed in rule by the Department of Ecology. These regulations apply to the County's transfer stations and drop boxes, recycling facilities, moderate-risk waste facilities or collection events, and all other solid waste handling activities under this plan other than MSW landfills. It also references other state and federal regulations that apply to County facilities.

Beyond Waste and Toxics Guidelines

The *Beyond Waste and Toxics Plan* is the State of Washington's Solid and Hazardous Waste Management Plan. The State's goal is to reduce waste by not generating it in the first place or by recycling wastes that are created and putting the materials back into new products. When Ecology reviews the County Plan for approval, Ecology's expectation is that the concepts of Beyond Waste will be supported by the County Plan. Three of the top priorities of the Beyond Waste and Toxics program are reduction of hazardous wastes, reducing organic waste, and reducing construction waste.

Conform with Plan to Receive Waste Handling Permit

RCW 70.95.185 requires conformance with the solid waste management plan in order to receive a permit or meet the conditions of permit exemption to operate a solid waste facility. This applies not only to County facilities but also to solid waste facilities and recycling facilities. Other sections of the law require the permit to be reviewed at least every 5 years by the jurisdictional health department and allow Ecology to review permits.

Illegal to Use Non-Permitted Sites to Dispose of Solid Waste

RCW 70.95.240 makes it illegal to dispose of solid waste except as provided for in statute or at a permitted disposal site. This state law is reiterated in San Juan County Code (8.12. et seq.) and the code also specifically identifies the approved sites designated by the County Council.

Material Collected for Recycling Must be Recycled

RCW 70.95.410 makes it illegal for any transporter to deliver materials that were collected as recyclables to a solid waste facility for disposal. Chapter 173-345 WAC is the regulation that

implements the law. It provides a definition of recyclable materials that includes any material the County plan identifies as recyclable.

Proper Disposal of Mercury-Containing Lights

Chapter 70.275 RCW establishes a producer-financed product stewardship program for the collection, transportation, and recycling of mercury-containing lights. Refer to <http://www.ecy.wa.gov/programs/swfa/mercurylights/index.html> for more information.

8.2.2 Other Washington State Regulations

Industrial Stormwater Permit

The Department of Ecology manages the state National Pollutant Discharge Elimination System (NPDES) program, which, in part, requires certain types of industrial facilities to obtain permits for managing their stormwater. The County transfer stations and drop boxes are required to comply with the State's industrial stormwater general permit standards, which set specific limits on the amount of contaminants allowed in the stormwater when it leaves the sites.

Safety Requirements

The Washington State Department of Labor and Industries is the state agency responsible for workers' safety. The regulations apply to private industrial operations and to the County solid waste facilities.

The most common safety threats to solid waste facility staff are exposure to hazardous materials and biological wastes (including used syringes), operating equipment, and falling when working on and around solid waste containers. The County and private operators are required to create and follow a safety plan that reduces these risks through staff training, using safety equipment, and improving facility design.

An example of the effect of these rules is a basic County safety requirement to have at least two staff members on site (buddy system) whenever the facility is operating in order to render aid in case of an accident.

Transportation Requirements

Due to the type of equipment that are used, the operator's staff that move the solid waste containers are required to have Commercial Drivers' Licenses. Transportation standards also limit the weight of the trucks that used to haul waste.

WUTC Requirements

RCW 70.95.096 requires an outside evaluation of the economic impact of solid waste plans on the licensed solid waste haulers in the County and an estimate of how that economic impact may translate into service rates for citizens. To do this effectively, the County Plan must include cost

estimates for facilities and services. The WUTC also has other responsibilities related to solid waste financing.

RCW 81.77 describes the duties of the WUTC in regulating solid waste collection companies. The rates charged by collection companies are set by the WUTC, and collection companies are required to provide the services described in the solid waste plan.

RCW 81.77.190 authorizes a reduced collection fee for residential customers who choose to participate in curbside recycling collection. Incentives such as reduced fees must also be made available for customers participating in any other non-curbside recycling program.

Growth Management Act

Chapter 36.70A RCW, The Washington State Growth Management Act (GMA), requires counties to include capital facilities plans and service concurrency standards in the County Comprehensive Plan. The results of this revised Plan will be incorporated into the capital facilities and service concurrency standards of the County Comprehensive Plan.

State Environmental Policy Act

SEPA applies not only to the development of individual projects, like construction of transfers stations, but also to non-project actions such as development of solid waste plans. Once a plan is developed to the extent that its impact can be evaluated, it must be reviewed through the SEPA process established in Chapter 43.21C RCW.

8.2.3 San Juan County Solid Waste Management Codes

Established a Disposal District that Does Not Include the Town

In 1996 the County established a solid waste disposal district (General Disposal District) that includes all of San Juan County with the exception of the Town of Friday Harbor (the district is limited to unincorporated San Juan County). The primary use of the disposal district has been to establish an excise tax to fund debt payments related to building the existing facilities and closing the old Orcas landfill. (Ordinance 19-1966 and W-1-1996, County Code 8.12.060)

Established Sites for Facilities

Solid waste generated in San Juan County can only be taken to facilities identified by the Council. Section SJCC 8.12.010.B identifies the three existing solid waste facilities as approved facilities for solid waste disposal. This section was revised in 2014 with the transition of facility operation to non-County entities (refer to “Established Flow Control” below).

County Code 8.12.030 was amended in 2016 authorizing site-specific inert landfills in San Juan County (Ordinance No. 6-2016). The only currently operating inert landfill is the LS&G site located on Channel Road, Lopez Island. The Lopez Solid Waste facility transports their clean glass to the landfill for disposal as fill.

Lopez Solid Waste Disposal District

On June 26, 2012, the County Council modified the boundaries of the existing General Disposal District, established the LSWDD, and appointed its first board of directors (Ordinance 11-2012). The Lopez Disposal District supports itself through a combination of property taxes and tipping fees.

There are currently two disposal districts in the County, San Juan County Disposal District and LSWDD.

Established Flow Control

Section SJCC 8.12.010(B)(2) requires waste generated in San Juan County to be delivered to the County Solid Waste Sites. Such codes are generally referred to as flow control ordinances. Flow control ordinances are intended to enable a local government to predict revenue to plan and budget facility construction, operations, and maintenance.

With the transition of facility operation to non-County entities, the existing flow control codes were revised in 2014 by County Ordinance (No. 8-2014). The revisions were necessary to allow solid waste to be disposed at any permitted solid waste handling facility that exists in the County, and to clarify that solid waste generated in the County may be deposited out-of-County at a permitted solid waste handling facility.

8.2.4 San Juan County Solid Waste Regulations

Facility Standards

San Juan County's Board of Health has formally adopted the solid waste facility standards that are set by Washington State. This adoption enables the County Health Department to act as an agent of the state when enforcing solid waste handling rules and the minimum functional standards for facilities. The state retains the ability to enforce the rules, should the County fail to do so (Sections RCW 70.95.160 and SJCC 8.14.010).

Individual Standards

The County Board of Health regulates how individuals can store and dispose of solid waste and when solid waste handling needs are classified as commercial and, therefore, become subject to State standards for commercial waste handling found in WAC 173-350-300 (SJCC Section 8.14.030.F).

8.2.5 Other Pertinent County Codes

Essential Public Facilities

Solid waste facilities are essential public facilities included in definitions found in RCW 36.70A.200 and WAC 365-195-550. This means that the County cannot forbid their development and must identify appropriate locations for these facilities.

County Comprehensive Plan

In addition to the overall land use requirements, the County Comprehensive Plan includes sections regarding the adequacy of the solid waste system to support community growth and plans for funding essential public facilities, which include solid waste facilities. Changes in the Solid Waste Plan will need to be incorporated in the Comprehensive Plan.

8.2.6 Town Regulations

The Friday Harbor Municipal Code Chapter 13.28 regulates solid waste collection, including the type, size, and condition of containers used for storage and collection, and establishes a fee schedule for refuse service charges. It also describes nuisance waste in Section 12.28.120 and prohibits outdoor burning.

8.3 ADMINISTRATION

The County Council, administrative departments, and citizens' review boards and committees support the administration of County regulations and facility operations in accordance with County and State regulations.

8.3.1 County Council

As the legislative and executive body of the County, the County Council is both responsible and has the authority to ensure that citizens are served by an adequate solid waste system. While the details of how the system will work are left to counties, the State has the responsibility to ensure that the system is protective of public health and the environment.

8.3.2 Disposal District Boards

In 1996, the San Juan Board of County Commissioners established a solid waste disposal district that encompasses all of San Juan County, with the exception of the Town of Friday Harbor. Pursuant to state law, the County legislative body is the governing body of any disposal district within the County. Therefore, the San Juan County Council is the Disposal District Board. The primary activity of the Disposal District Board has been to set the rate of the Disposal District excise tax.

On June 26, 2012, the San Juan County Council established the Lopez Solid Waste Disposal District and appointed its first board of directors (Ordinance 11- 2012). LSWDD supports itself through a combination of property taxes and tipping fees. The County Council is the governing board for the District.

8.3.3 Public Works Department

The Public Works Department is the administrative department that is responsible for implementing the decisions of the County Council. The Solid Waste Program Administrator in Public Works provides overall coordination and administration of the privately operated County solid waste facilities.

Responsibility under Comprehensive Emergency Management

A natural disaster or large-scale emergency, such as an earthquake, may create solid waste challenges and needs that extend far beyond normal solid waste management operations and capacities.

Debris resulting from a disaster or emergency may require prompt and thorough attention for removal and general cleanup to address public health, traffic circulation, and other concerns. Activities necessary for cleaning up and removing debris may result in any number of increased services, including, but not limited to temporary debris pick-up sites, waived tipping or pick-up fees, downed limb and tree debris collection, or any number of other services, depending on the situation.

As described in Section 3.2.2 of the San Juan County Comprehensive Emergency Management Plan (CEMP 2010)¹⁹, the County Public Works Department is responsible to coordinate post-disaster solid waste and debris management countywide. The Department will work in conjunction with the Town, the certificated hauler, private contractors, private solid waste operators, solid waste districts, Federal or State assisting agencies, and other critical stakeholders.

In the event of extended periods when ferry service is interrupted, or for other breakdowns in the transportation system, solid waste may be temporarily stored in transfer long-haul trailers parked at the transfer stations. Solid waste may also be stored at the closed landfills on Orcas and Lopez Islands. Any stored solid waste should be organized so that putrescible and hazardous wastes can be accessed and removed at the earliest opportunity.

The Public Works Department will coordinate with the director of the County's Emergency Management Department to plan for use of any further sites that may appropriately serve as

¹⁹ The CEMP is in the process of revision and an updated version is expected late 2017 or early 2018. The role of County Public Works in a disaster or emergency is not expected to change. The County is also planning to draft a Debris Management Plan (expected for 2018), which will be an ancillary document to the revised CEMP.

temporary storage locations following severely damaging storms or other emergency circumstances.

8.3.4 Solid Waste Advisory Committee

The local SWAC was created pursuant to state law to advise the County legislative body and to help develop solid waste management plans. The SWAC is composed of up to 12 members, including representatives from each solid waste facility, the Town, San Juan Sanitation, agricultural interests, residents from the three major islands, and business representation. As the title suggests, the Committee's role is to advise the Council on policies and legislation and to ensure that recycling is addressed in the solid waste management plan.

8.3.5 Board of Health

The Board of Health has responsibility over all matters pertaining to the preservation of the life and health of the people of San Juan County. The Board has seven members and consists of three Council members, one Town of Friday Harbor representative and three at-large members with knowledge of public health practices. The Board is responsible for protecting public health from the potential dangers of inappropriate management of solid waste. The Board pursues this responsibility through the adoption of local solid waste handling requirements that affect both citizens' activities and the operation of the solid waste system by the Public Works Department.

8.3.6 Department of Health and Community Services

Health and Community Services is the County department responsible for carrying out the directives of the Board of Health. For solid waste issues, this responsibility includes inspection of solid waste facilities to ensure they meet state and local construction and operational standards, as well as responding to situations on private properties that may pose a threat to public health.

8.4 ENFORCEMENT

Operations and general management of the County solid waste system are handled through the Public Works Department. Regulation, such as issuing permits for operation of solid waste facilities and enforcement of any violations of SJCC Chapter 8.14, including illegal dumping, is handled through the Health and Community Services Department.

The Town also provides enforcement of its solid waste collection system.

8.4.1 Surveillance and control

The Health Department inspects solid waste facilities in the county for compliance with the State's minimum functional standards and, if they do comply, issues permits for the facilities.

The Health Department also responds to complaints related to illegal dumping or improper handling of solid wastes on private property. The Health Department works with Ecology to evaluate monitoring of the County's closed landfill on Orcas Island and to make any recommendations for changes to the monitoring program for it.

8.4.2 Illegal dumping

In addition to environmental concerns, dumping anywhere other than at a facility approved by the County Health Department and in a manner consistent with the County solid waste management plan, as well as improper handling of solid waste, are misdemeanors subject to a fine of as much as \$1,000 and potential imprisonment (Chapter 8.14, San Juan County Code).

8.4.3 Town of Friday Harbor

Chapter 13.28 establishes Town inspection authority (FHMC 13.28.060) for compliance with its regulations. FHMC Section 13.28.170 establishes violations of Chapter 13.28 as public nuisances and a Class 4 Civil infraction, with each day of non-compliance subject to a fine of \$25 following infraction procedures. In certain cases, the Town may file a public nuisance abatement action in San Juan County Superior Court.

8.5 INTERLOCAL COOPERATIVE AGREEMENT

San Juan County, the Town, and Skagit County entered into an interlocal cooperative agreement regarding receipt of solid waste on April 9, 2013 (refer to Appendix I). In this agreement, Skagit County will allow disposal of solid waste from San Juan County and the Town at the Skagit County Transfer and Recycling Station, as delivered by certificated hauler and private operators of the San Juan County and Town solid waste facilities. The term of the agreement is until September 30, 2023, and may be extended another 10 years with the mutual agreement of all parties.

8.6 FINANCING THE SIX-YEAR PLAN

8.6.1 Facilities and Operations

San Juan County does not plan on developing, constructing or purchasing solid waste management facilities in the next 6 years. As a result, a financial plan for either capital cost or operational expenses for the County solid waste management system is not applicable. The County's solid waste management system will be a predominantly route (curbside) collection system for garbage and recycling with direct transport to county transfer facilities and disposal facilities. Additionally, the existing in-county solid waste management facilities are currently leased by private enterprises to provide solid waste services. Most capital costs, including maintenance, repair and equipment, will be the responsibility of the lessee. However, the County will assist the operators with some capital costs to expand services, as necessary. For example,

the County recently completed construction of a new reuse building and potable water system for the Orcas Island transfer station. Additional CIP may include hazardous waste storage containers or buildings for the San Juan transfer station and the Lopez drop box.

8.6.2 Administration

The 6-year County solid waste management program will consist primarily of household hazardous waste and small-quantity generator collection and disposal, community recycling and reduction outreach and education activities, litter control, closed landfill monitoring, staffing and administrative duties such as oversight of leased facilities. The County also plans CIP to support expansion of services at the solid waste facilities.

Budget funding is primarily provided through the County excise tax and state LSWEG and Community Litter Cleanup Program contract agreements.

8.6.3 Excise Tax

All solid waste districts have the option of imposing excise taxes on fees charged for solid waste services. The San Juan County General District has charged a 14.5% excise tax since 2016. This tax applies to both collection fees charged by the certificated hauler and disposal fees charged at the County-owned or operated facilities. Revenue from both sources is deposited in the County solid waste funds.

With the creation of the Lopez District, the General district excise tax does not apply on Lopez Island. In September 2012, the Council also adopted Ordinance 17-2012, which levies an excise tax of 16% on solid waste collection in the Lopez Disposal District. The proceeds of the tax can only be used for purposes related to solid waste collection, operations and related debt service. The Lopez District also collects a property tax to help support operations. The tax is assessed annually and is approved by the voters of Lopez Island.

The LSWDD also pays the County a fixed fee to fund services that benefit both Districts. The fee is assessed each year and requires adjustment of the fee based on the previous year’s expenses and a notice to the District regarding the fee level.

Table 15 projects revenues and expenses over the next 6 years. Budget projections are described in 2018 dollars.

REVENUES	2018	2019	2020	2021	2022	2023
Excise Tax ¹	337,000	337,000	337,000	337,000	337,000	337,000
Facility Leases ²	76,000	76,000	76,000	76,000	76,000	76,000
Haz Waste Fund ³	45,000	45,000	45,000	45,000	45,000	45,000
Litter Fund ⁴	15,000	15,000	15,000	15,000	15,000	15,000
Begin Fund Balance ⁵	699,000	714,500	629,000	641,500	552,000	376,500

Total Revenue	1,172,000	1,187,500	1,102,000	1,114,500	1,025,000	849,500
EXPENSES						
Administration ⁶	215,000	215,000	215,000	215,000	215,000	215,000
Town of FH Lease	18,000	18,000	18,000	18,000	18,000	18,000
Litter Tags	15,000	15,000	15,000	15,000	15,000	15,000
Noxious Weeds ⁷	7,500	7,500	7,500	7,500	7,500	7,500
Hazardous Waste ⁸	60,000	60,000	60,000	60,000	60,000	60,000
Mgt. Plan Review and Update	--	--	--	--	10,000	--
Debt Service	12,000	12,000	12,000	12,000	12,000	12,000
Orcas Landfill Closure ⁹	55,000	81,000	58,000	85,000	61,000	63,000
CIP ¹⁰	75,000	150,000	75,000	150,000	250,000	75,000
End Fund Balance ¹¹	714,500	629,000	641,500	552,000	376,500	384,000
Total Expenses	457,500	558,500	460,500	562,500	648,500	465,500
Table Notes:	¹ 14.5% rate on estimated total of certificated hauler and solid waste transfer stations. ² Operating fees from LSWDD (\$33,000), San Juan transfer station (\$19,680), and Orcas transfer station (\$23,400) (rounded). ³ State Local Solid Waste Enforcement Grant (previously CPG), 25% County match required. ⁴ State Coordinated Litter Cleanup Grant, no County match required. ⁵ Cash reserve including Orcas Landfill Closure Reserve Account. ⁶ County staffing levels at 1.35 FTE plus administration costs. ⁷ Includes treatment and disposal from solid waste facilities; and disposal costs from public. ⁸ Includes 25% County match. ⁹ Includes monitoring, maintenance, and closure costs. ¹⁰ Capital improvement projects include paving, hazardous waste storage containers for Lopez and San Juan facilities, expansion of TIOLI and other services. ¹¹ Fund reserves are available for additional CIP as needed, and the potential for the County to temporarily operate one or more of the solid waste facilities, as necessary.					

Table 16 projects revenues for the Town of Friday Harbor from collection fees and other sources.

Revenues	2018	2019	2020	2021	2022	2023	Total
Base Fee	53,548	55,154	56,809	58,513	60,269	62,077	346,370
Garbage Collection	954,478	983,112	1,012,606	1,042,984	1,074,273	1,106,502	6,173,955
Recycling Collection	15,457	15,921	16,398	16,890	17,397	17,919	99,982
Yard Waste Collection	552	569	586	603	621	640	3,571
Other ¹	16,850	17,356	17,876	18,412	18,965	19,534	108,993

	1,040,885	1,072,112	1,104,275	1,137,403	1,171,525	1,206,671	6,732,871
Total Revenues							
Expenditures							
Administration	234,800	241,844	249,099	256,572	264,269	272,198	1,518,783
Refuse Collection	540,500	556,715	573,416	590,619	608,338	626,588	3,496,176
Recycling Collection	105,300	108,459	111,713	115,064	118,516	122,072	681,124
Yard Waste Collection	3,400	3,502	3,607	3,715	3,827	3,942	21,993
Waste Reduction Programs	500	515	530	546	563	580	3,234
Other Costs ²	53,800	55,414	57,076	58,789	60,552	62,369	348,000
Other Uses ³	122,550	126,227	130,013	133,914	137,931	142,069	792,704
Total Expenditures	1,060,850	1,092,676	1,125,456	1,159,219	1,193,996	1,229,816	6,862,013
Table Notes:							
¹ Sale of grease, additional bill copy fee, Sutton Road rent.							
² Personnel, supplies, repair & maintenance, equipment, planning.							
³ Equipment reserve, landfill closure (closed in 2025), hazardous waste.							

8.7 THE 20-YEAR PLAN

The County’s twenty-year project needs will focus on landfill post-closure account funding and expenditures, facility expansion of services, household hazardous waste collection, education programs, and waste reductions. Revenues and expenses are entered in 2018 dollars in Table 17 below.

Revenues	2018-2022	2023-2027	2028-2032	2033-2037
Excise Tax ¹	1,685,000	1,685,000	1,685,000	1,685,000
Facility Leases ²	380,000	380,000	380,000	380,000
Hazardous Waste Fund ³	225,000	225,000	225,000	225,000
Litter Fund ⁴	75,000	75,000	75,000	75,000
Begin Fund Balance ⁵	3,236,000	2,913,500	2,931,000	2,208,500
Total Revenues	5,601,000	5,278,500	5,296,000	4,573,500
Expenses	2018-2022	2023-2027	2028-2032	2033-2037
Administration ⁶	1,075,000	1,075,000	1,075,000	1,075,000
Town of FH Lease	90,000	90,000	90,000	90,000
Litter Tags	75,000	75,000	75,000	75,000

Noxious Weeds ⁷	37,500	37,500	37,500	37,500
Hazardous Waste ⁸	300,000	300,000	300,000	300,000
Mgt. Plan Review and Update	10,000	10,000	10,000	10,000
Debt Service ⁹	60,000	10,000	--	--
Orcas Landfill Closure ¹⁰	340,000	50,000	--	--
CIP ¹¹	700,000	700,000	1,500,000	1,500,000
End Fund Balance ¹²	2,913,500	2,931,000	2,208,500	1,486,000
Total Expenses	2,687,500	2,347,500	3,087,500	3,087,500
Table Notes:	¹ 14.5% rate on estimated total of certificated hauler and solid waste transfer stations. ² Operating fees from Lopez Solid Waste District, San Juan Transfer Station, and Orcas Transfer Station. ³ State Local Solid Waste Enforcement Grant (CPG), 25% County match required. ⁴ State Coordinated Litter Cleanup Grant, no County match required. ⁵ Cash reserve including Orcas Landfill Closure Reserve Account. ⁶ County staffing levels at 1.35 FTE plus administration costs. ⁷ Includes treatment and disposal from solid waste facilities; and disposal costs from public. ⁸ Includes 25% County match. ⁹ Assume debt service ends in 2026. ¹⁰ Assume Orcas landfill final closure 2023. ¹¹ Assume additional CIP requirements for upgrades to transfer stations and drop box. ¹² Fund reserves are available for additional CIP as needed, and the potential for the County to temporarily operate one or more of the solid waste facilities, as necessary.			

The Town’s twenty-year project needs will focus on garbage, recycle and yard waste collection, waste reduction, hazardous waste, administrative costs, and waste reduction. Revenues and expenses are entered in 2018 dollars in Table 18 below.

Revenues	2018-2022	2023-2027	2028-2032	2033-2037
Base Fee	267,740	267,740	267,740	267,740
Garbage Collection	4,772,390	4,772,390	4,772,390	4,772,390
Recycle Collection	77,285	77,285	77,285	77,285
Yard Waste Collection	2,760	2,760	2,760	2,760
Other ¹	84,250	84,250	84,250	84,250
Total Revenues	5,204,425	5,204,425	5,204,425	5,204,425

Expenses	2018-2022	2023-2027	2028-2032	2033-2037
Administration	1,174,000	1,174,000	1,174,000	1,174,000
Refuse Collection	2,702,500	2,702,500	2,702,500	2,702,500
Recycling Collection	526,500	526,500	526,500	526,500
Yard Waste Collection	17,000	17,000	17,000	17,000
Waste Reduction	2,500	2,500	2,500	2,500
Other ²	269,000	269,000	269,000	269,000
Other ³	612,750	450,000	150,000	150,000
Total Expenditures	5,304,250	5,141,500	4,841,500	4,841,500
Table Notes:	¹ Sale of grease, additional bill copy fee, Sutton Road rent.			
	² Personnel, supplies, repair & maintenance, equipment, planning.			
	³ Equipment reserve, landfill closure (closed in 2025), hazardous waste.			

9 MODERATE-RISK WASTE MANAGEMENT PLAN

This section provides information on the County’s moderate-risk waste management plan and is a revision of the County’s “2012 Hazardous Waste Management Plan” (SJC 2012) and the Town’s “2014 Moderate-Risk Waste Management Plan” (TOFH 2014). This Plan is in compliance with the Washington State Hazardous Waste Management Act, Chapter 70.105 RCW, which requires each county in the state to develop strategies and programs to ensure proper management of flammable, toxic, corrosive, and reactive wastes generated by local households and small businesses (Ecology 2010c).

9.1 BACKGROUND

Moderate-risk waste includes two categories of wastes that have hazardous characteristics but are exempt from regulation under Chapter 70.105 RCW, Hazardous Waste Management²⁰. The first category consists of household hazardous wastes (HHW). These are materials used in the home and identified by Ecology as flammable, corrosive, toxic, or reactive when discarded. Most homes in San Juan County contain one or more types of HHW (refer to Table 19).

Table 19. Typical HHW Groups	
Construction, Remodeling, Repair	Adhesives, oil-based paint, thinner, epoxy, paint stripper
Cleaning Agents	Oven cleaners, deck cleaners, degreasers, toilet cleaners
Pesticides and 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

The second category of moderate-risk wastes are those produced by small quantity generators (SQG). 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). Moderate-risk wastes created through households and SQG are conditionally exempt (CESQG) from state and federal regulation if generators manage and dispose of them properly. Moderate-risk does not mean that the material is moderately hazardous; rather, it is generated in small volumes and is therefore not regulated in the same way as larger volume hazardous waste from businesses.

The County is the responsible agency for moderate-risk waste management in San Juan County. The County will continue to provide hazardous waste collection events to its residents and

²⁰ RCW 70.105.010(13) –“Moderate-risk waste” means (a) 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, and (b) any household wastes which are generated from the disposal of substances identified by the department as hazardous household substances.

businesses (including the Town), and pursue the goals for managing hazardous waste outlined in Section 9.2 of this Plan.

The solid waste facilities on San Juan, Orcas, and Lopez Islands will continue to accept used oil, antifreeze, and lead-acid batteries from its customers for storage and transport by a recycling company to the mainland. Compact fluorescent bulbs and tubes will continue to be accepted for recycling at the Lopez solid waste facility as part of the Light Cycle Washington program as well as OPALCO offices on San Juan and Orcas Islands.

9.1.1 Potential Risks and Impacts of HHW

Even small amounts of hazardous chemicals released into the environment through improper disposal can pollute the air, poison groundwater, contaminate soil, kill plants and animals, and seriously endanger human health. This is of particular importance in the sensitive marine environment of the San Juan Islands and Salish Sea. One-hundred thirteen marine species of fish and wildlife in the Salish Sea are now classified at risk or vulnerable to extinction and the Salish Sea contains some of the most toxically contaminated marine mammals in the world.



While the hazardous substances in the County waste stream are found in such small volumes that they are exempt from state hazardous waste regulations, they do exhibit the characteristics of hazardous wastes that should be managed to eliminate potential health risks associated with their use, storage, and disposal.

The goal of the program, and of this Plan, is to continue to provide education and programs that make it easier for County residents to reduce their use of chemical products and to properly manage the HHW they may continue to generate. This Plan also promotes the State's *Beyond Waste and Toxics Plan* objectives and goals that emphasize waste prevention. Pollution prevention, product stewardship, and environmentally preferred purchasing are some of the tools that can help the County transition from its current reactive system for HHW management to a cost-saving proactive management system (refer to Section 9.2).

9.2 GOALS

The goals in this section are to reduce the use of toxic materials throughout the County and subsequently reduce the risk to humans and the environment.

9.2.1 Reduce Use of Toxic Materials

Consistent with Ecology Hazardous Waste and Materials (ECY HWM 11A and 11D) goals, the County will:

- Encourage households to switch to non-toxic or less-toxic products.
 - Distribute information about product content in various media on product choices.
 - Provide information about recycling fluorescent lights, batteries, and e-waste.
 - Include unopened paints and cleaning supplies in exchange projects, and distribute disposal information about latex paint products at point of sale and at collection sites.
- Reduce volume of hazardous waste disposal from SQG businesses.
 - Provide information on source control pollution prevention.
 - Provide information about recycling fluorescent lights, batteries, and e-waste.
- Distribute information on San Juan County’s unused medication collection systems.

9.2.2 Reduce Health and Environmental risks

Reduce health and environmental risks associated with potential exposures from improper use, storage, and disposal of hazardous or moderate risk waste.

- Continue to provide periodic public mobile collection events on all ferry-served islands and on select non-ferry-served islands (ECY HWM 12).
- Develop sustainable funding sources for hazardous waste export and disposal.
- Develop a drop-off facility for moderate-risk waste at one or more of the county collection facilities (ECY HWM 12).
- Seek ongoing technical assistance from Ecology staff on collection events, methods, facilities, and staffing (ECY HWM 13A).

9.3 CURRENT CONDITIONS ANALYSIS

9.3.1 Administration

The Solid Waste Program in Public Works administers the County MRW program. The program implements Plan elements by promoting reduction, reuse, recycling and proper disposal of residual HHW.

9.3.2 Hazardous Waste Inventory

Appendix H contains the inventory of zone designations and hazardous waste sites, included in this Plan as required by the State’s planning guidelines.

9.3.3 Examples of HHW, MRW, and SQG Wastes

Examples of materials currently managed through regular County household and CESQG hazardous waste collections:

- Adhesives,
- Aerosols,
- Auto/boat repair products,
- Boat bottom paint sludge (boat wash tailings),
- Chemical cleaning products,
- Contaminated motor oil or antifreeze (e.g. mixed together or with other products),
- Fuels including gasoline, kerosene, alcohol,
- Mercury (elemental),
- Mercury-bearing materials (fluorescent light tubes and CFLs, switches/ thermometers, etc.),
- Oil-based paints/stains,
- Pesticides/weed killers and other herbicides,
- Photochemicals,
- Swimming pool chemicals,
- Solvents/thinners, and
- Wood preservatives

9.3.4 Current Program Elements

HHW Public Education

Ongoing public education for both households and businesses has been carried out through the the County webpage (<http://sanjuanco.com/351/Hazardous-Waste>), distribution of County- and State-produced printed information, and press releases. Waste reduction (prevention) has been the primary focus of the Program's education efforts for both households and businesses, with a focus on promoting the use of non-toxic or less toxic alternatives. Information on proper recycling of used motor oil and disposal of hazardous waste materials is part of the County's ongoing education efforts as well.

HHW Collection

Program management includes planning and on-site coordination of one annual collection/disposal event at each of the solid waste facilities on the major ferry-served islands (Lopez, Orcas, San Juan) with collections scheduled, as needed, on the smaller islands (e.g., Shaw, Waldron). Households are invited to participate in these collections. The collections are free for households with a limit of 25 gallons each. With State funding decreases proposed for the 2017-2019 LSWEG (previously CPG), the County may have to charge a household hazardous waste fee for future events to continue the frequency of collections.

In 2017, hazardous waste collection events were held in May on Waldron Island; in June on San Juan, Orcas, and Lopez Islands; and in July on Blakely and Decatur Islands. A total of 433 households and 24 SQGs participated in the 2017 collection events with nearly 25 tons of hazardous wastes removed from the County. Paint-related materials (e.g., oil-based paints) were the most common household hazardous waste collected in 2017 (refer to Table 20).

Also in 2017, the County purchased a hazardous waste storage container for the Orcas transfer station. Once installation is complete, ORS trained personnel will periodically collect household hazardous waste from its customers for temporary storage in the secure container. The stored waste will be transported off-island for proper disposal during the County's annual collection events.

CESQG Collection

County CESQG's (businesses) are invited to participate in HHW collections but are required to pre-register and to pay for their own disposal costs. Some local business owners and managers have expressed their concern that without the county's co-collections they could not afford to properly dispose of their hazardous waste or to independently have their oil and antifreeze recycled.

Businesses that routinely participate in these collections include medical/dental offices, school districts, automobile/marine repair and body shops, County and Town departments, Port and marinas, and building/painting/electrical contractors. While County CESQGs produce relatively small quantities of hazardous wastes and the amount for each type may change significantly from year-to-year, there are approximately 100 SQGs on the islands that have participated to some degree in County collections over the last several years (Appendix H). An inventory from the 2017 hazardous waste collection events is provided in Table 20. The participation by island at each event from 2014-2017 is presented in Table 21.

Currently, state-registered hazardous waste haulers are contracted by the County to provide sorting, packaging, transportation, recycling, treatment, and disposal services of wastes collected at these events in accordance with all federal, state, and local environmental, health, and safety regulations. The current County contractor, Clean Harbors is required to remove all residual collected materials on the day of collection and transports them by private barge to the company's various facilities for proper treatment and disposal.

Pounds Collected in 2017	WALDRON	SAN JUAN	LOPEZ	ORCAS	DECATUR	BLAKELY	TOTAL
Aerosols	39	370	280	538	88*	*	1,315
Liquid Pesticides	--	4,743	2,691	3,845	354	965	12,598
Solid Pesticides	--	346	559	602	--	299	1,806
Paint-Related	--	4,434	2,051	5,294	814	1,765	14,358
Flammables	2,800	2,416	1,125	1,669	566	866	9,442
Flammable Toxics	2,875	--	--	--	--	--	2,875
Oxidizers	--	64	43	135	8*	*	250
Reactives	4	7	5	4	--	--	20
Corrosives	60	530	284	366	126*	*	1,366
Poison Solids	115	--	--	--	--	--	115
Mercury and Hg-Containing Bulbs	--	218	15	125	--	--	358
Antifreeze	43	194	173	221	--	--	631
Batteries	1,901	267	107	223	182*	*	2,680
Propane Cylinders	--	92	305	408	--	--	805
PCBs	--	107	--	--	--	--	107
Used Oil (mixed)	--	--	--	--	996	--	996
Total	7,837	13,788	7,638	13,430	3,134	3,895	49,722

NOTES: ¹CESQG wastes were collected directly by Clean Harbors and not included in this summary table; -- not collected; * total includes waste from Blakely Island event.

Year	SAN JUAN		ORCAS		LOPEZ		WALDRON		SHAW		DECATUR		BLAKELY		STUART	
	HHW	CE SQG	HHW	CE SQG	HHW	CE SQG	HHW	CE SQG	HHW	CE SQG	HHW	CE SQG	HHW	CE SQG	HHW	CE SQG
2014	152	Inc.	109	Inc.	100	Inc.	--	--	--	--	--	--	--	--	--	--
2015	151	Inc.	165	Inc.	124	Inc.	--	--	--	--	--	--	--	--	15	--
2016	149	16	149	12	128	7	--	--	24	--	--	--	--	--	--	--
2017	116	11	132	12	101	1	26	--	--	--	23	--	35	--	--	--

Notes: Inc. indicates CESQG were included with HHW participate count.

In the earlier days of HHW collections in the County, home and farm sellers or buyers brought significant volumes of “legacy” (historical) chemical wastes to collections when ownership changed (SJC 2012). These materials typically included leaking or rusted containers, unknown materials, and very old, outdated pesticides and herbicides. This has been a less frequent

occurrence over the last few years, perhaps due to the real estate market being less active or that many of these legacy wastes have been collected for proper disposal. In 2017, the County observed an increase in the number of legacy wastes brought to the HHW collection events, including hazardous wastes left behind after home sales and the decease of family members. There has also been a noticeable increase in home sales in the County over the last couple of years, which may explain this increase.

Although oil-based paints and stains are accepted at HHW collection events, latex and other water-based paints and stains are not, and owners are encouraged to find someone to use-up good materials or to solidify unusable product with an absorbent (e.g., kitty litter) for solid waste disposal. Latex paints and stains manufactured after 1978 do not contain high levels of lead and those manufactured after 1991 do not contain mercury, and are considered acceptable for solid waste disposal. The County has been working with the operators of the Orcas transfer station and the Lopez drop box to offer a trade-in/reuse program for water-based paints, where residents can drop-off paints in good condition for others to use, free of charge. If enacted, a paint reuse program will help divert these products from going to the landfill.

Used Motor Oil Collection for Recycling

Used Motor Oil is not designated as hazardous waste if it is not contaminated with solvents, antifreeze, or other materials, because uncontaminated used oil is recyclable. However, used motor oil is included in this section of the Plan to highlight its collection and recycling. The Used Oil Recycling Act (Chapter 70.95I RCW) requires that local waste management plans develop goals for improving collection, recycling, and re-refining of used oil. Goals for public education about used motor oil and reporting requirements are similarly required.

Used motor oil is currently collected for recycling at each of the three solid waste facilities for a fee. Since 1995 most of this publically-collected used oil has been used for heating the County road shops on Lopez, Orcas and San Juan Islands, being burned in EPA-approved waste oil heaters. However, in recent years, the County has not been able to keep up with the volume collected, and more used motor oil is being transported by ORRSCO out-of-county for recycling.

Used Antifreeze Collection

Used antifreeze is collected for recycling at each of the three solid waste facilities for a fee to customers. The program coordinates pick-up of used oil and antifreeze by a mainland recycler (currently ORRSCO) as needed, with local businesses participating in these “milk runs” and paying their own recycling costs.

Battery Collection

Vehicle/marine/solar lead acid batteries are currently collected for recycling at each of the three facilities for a fee. Batteries from each County solid waste facility as well as from local automotive retail dealers and repair shops are collected and transported to the mainland for recycling. In 2016, the Orcas transfer station collected and recycled 1,921 pounds of lead-acid

batteries from its customers. Over the same timeframe, the San Juan transfer station collected and recycled 3,580 pounds of lead-acid batteries and the Lopez drop box collected and recycled 3,911 pounds of lead-acid and 150 pounds of rechargeable batteries. During the HHW collection event on Waldron, the County collected nearly 2,000 pounds of lead-acid batteries (used primarily for solar power).

Other Programs to Manage Household Hazardous Waste

Rechargeable batteries are collected at the Orcas transfer station and Lopez drop box and other locations on the islands and recycled through the Rechargeable Battery Recycling Corporation (RBRC) mail-back program at no cost.

Alkaline household batteries are collected at Ace Hardware in Friday Harbor for recycling at no cost to generators.

Unwanted pharmaceuticals (medications) are collected at the Sheriff's Offices and at the drugstores on San Juan and Orcas Islands in specially designated, locked containers. Medications collected by the Sheriff and drugstores are shipped to the mainland for proper disposal. In 2016, the County Sheriff's office collected and shipped 560 pounds of medications to the mainland for proper disposal.

Fluorescent light tubes and Compact Fluorescent Lights (CFLs) containing mercury are currently recycled through hazardous waste collection events. The Lopez Island drop box accepts CFLs and fluorescent tubes from its customers at no charge. CFLs are also accepted at the Orcas and San Juan offices of OPALCO at no charge.

Electronic wastes (computers, laptops, monitors, televisions) are recyclable at no cost through the state's E-Cycle Washington program. The county promotes local opportunities for "E-waste" recycling and submits annual feedback to Ecology on local collection sites and/or events in accordance with the "Electronic Products Recycling Program," WAC 173-900. From January 1, 2015 through April 24, 2017, a reported 241,772 pounds of E-waste were recycled from San Juan County.

Automobile Tires are accepted at the Orcas transfer station for a fee. The tires are transported to the mainland for recycling.

Infrastructure Inventory

- 5,000-gallon used oil tank (San Juan transfer station), with secondary containment.
- 350-gallon "Lube Cubes" for used oil at Lopez and Orcas solid waste facilities (with built-in secondary containment).
- 130-gallon antifreeze collection drums at each of the three solid waste facilities (with built-in secondary containment).
- Wooden three-sided battery shed with secondary containment at San Juan transfer facility.

- PolySafetypak with built-in secondary containment for lead acid battery storage at Orcas solid waste facility.
- Hazardous waste interim storage shed (30'x50') at San Juan Island solid waste site (not currently in use).
- Hazardous waste storage container (10'x30') at Orcas Island transfer station.

Compliance and Enforcement

The San Juan County Health Department regulates hazardous waste and responds to complaints regarding abandoned or illegal dumping of household or SQG hazardous waste. The Health Department may seek enforcement through the County prosecutor' office.

9.4 CURRENT REVENUE STRUCTURE

Since its inception in 1996, the program has relied, in part, on state grant funding under the LSWEG program (previously CPG). Under the state program, eligible costs are split 75/25 between the state and county to provide education and collection/disposal programs for households and businesses. Fees are collected from businesses participating in County HHW “round ups”, or collection events, to emphasize the need to reduce waste generation. The County may or may not charge a fee on households at collection events in the future.

9.5 HHW/SQG (MRW REGULATIONS)

9.5.1 Federal Regulation

Federal law exempts HHW and Small Quantity Generator waste from regulation.

The federal Mercury-Containing and Rechargeable Battery Management Act of 1996, Public Law 104-142, prohibits the sale of mercury-oxide button cell batteries and other mercury-added batteries; it also established the nonprofit RBRC to implement free collection and recycling programs for rechargeable batteries, including cell phones, for local agencies, institutions, retailers, and other businesses in order to reclaim heavy metals and steel in batteries.

9.5.2 Washington State Regulation

Legal authority for the San Juan County Hazardous Waste Program is based on Washington state statute, Chapter 70.105RCW, the Hazardous Waste Management Act of 1985 and, as amended; Chapter 70.105.220(1)(a) directed local governments to develop plans by the end of 1991 to manage hazardous waste and, in RCW 70.105.220(1)(b) directs that the plan shall include a plan or program to provide for ongoing public involvement and public education in regard to the management of moderate-risk waste. Chapter 70.105 RCW regulates collection, transport, treatment, storage and disposal of household hazardous wastes and defines exemption from regulations.

Model Toxics Control Act (MTCA), 70.105D RCW implements cleanup of identified sites contaminated by hazardous substances.

The Dangerous Waste Regulations (WAC 173-303) defines the conditional exemption for businesses and institutions generating small quantities of hazardous waste; it also requires that these SQGs properly store, transport, recycle and dispose of hazardous waste.

The Solid Waste Handling Standards (WAC 173-350) outlines requirements for collection and disposal of MRW and lists the minimum functional standards for design and operation of MRW storage and processing facilities.

The Used Oil Recycling Act of 1991 (Chapter 70.95I RCW) required each local hazardous waste management plan to include used oil collection and recycling in their hazardous waste programs, establishing used oil collection sites and education programs.

The Electronic Products Recycling Act of 2006 (Chapter 70.95N RCW) established a mandated system that requires manufacturers of computers, laptops, monitors, and televisions to develop recycling programs for these products at no cost to generators or government; the E-Cycle Washington Program was launched on January 1, 2009.

Washington State’s updated solid and hazardous waste management plan, the Beyond Waste and Toxics Plan, reflects the management priorities of reducing, reusing, and recycling our waste. The State’s *Beyond Waste and Toxics Plan* emphasizes reduction of the use of hazardous materials and the generation of hazardous waste to reduce environmental and health risks.

The state’s Mercury-Containing Lights Product Stewardship Law (Chapter 70.275 RCW) went into effect on January 1, 2013, implementing the Mercury-Containing Lights Product Stewardship Program, Chapter 173-910 WAC. Manufacturers are required to provide no-cost recycling services in each county. According to the guidelines, producers will work with local solid waste planners to provide reasonably convenient collection service. Collectors will need to register with the state and can be retail, curbside, government sites, or mail-back programs. Producers of CFLs must participate in and fully implement a product stewardship program by January 1, 2013. Beginning in 2013, no mercury- containing lights may be placed into the garbage.

9.5.3 Local regulations and agreements

SJCC 8.12.010 defines “hazardous waste and 8.12.020(3) prohibits delivery of hazardous waste under any circumstances to disposal facilities in San Juan County...” but states that MRW will be accepted.

Town of Friday Harbor Ordinance No. 1092 Section 11 broadly defines hazardous materials and restricts such waste from being placed in refuse containers for collection by the Town except when special arrangements have been approved by the Town. Section 14 deals with restrictions to outdoor burning.

9.6 MISSION – PROGRAM PHILOSOPHY

The mission of the County’s MRW program is to protect public and environmental health in San Juan County by reducing the threat posed by the use, storage, and disposal of hazardous materials. Preventing pollution by dramatically reducing the amount and effects of hazardous materials rather than maintaining the reactive hazardous waste management system of collection and disposal will help the Program be more sustainable; local governments cannot collect all the hazardous waste generated and everyday toxic materials are more prevalent now than in the recent past.

The long-range vision of the MRW program as adopted from that of the state’s *Beyond Waste and Toxics Plan* is to transition to a society where waste is viewed as inefficient, and where most wastes and toxic substances have been eliminated. This will contribute to economic, social and environmental vitality. This Plan and the Program’s work, therefore, attempt to incorporate Beyond Waste’s initiatives and goals to the fullest extent possible.

In the meantime, the County will continue to provide annual HHW collection events on San Juan, Orcas, and Lopez Islands with additional events on Shaw Island and the non-ferry served islands (Stuart, Waldron, Decatur, and Blakely). The County has purchased a HHW storage container for the Orcas Island solid waste facility, operated by ORS, to provide more opportunities for residents of Orcas Island to drop-off HHW. Future plans include purchasing HHW storage containers for the San Juan and Lopez solid waste facilities.

10 REFERENCES

- National Association of Home Builders. 2015. Green and Healthier Homes, Engaging Consumers of All Ages in Sustainable Living. Smart Market Report.
- Town of Friday Harbor. 2014. Solid & Moderate Risk Waste Management Plan. Adopted by Resolution 1995. January 9.
- San Juan County. 2017. Staff Report: 2036 Comprehensive Plan Update Population Projections. San Juan County Council and Planning Commission. From Colin Maycock, Planning IV, San Juan County Community Development Department. April 11.
- San Juan County. 2014. Letter to Kurt Baumgarten, Washington State Department of Ecology Regarding Administrative Order Dated September 11, 2012 (Docket No. 9498). From Erwin Swetnam, San Juan County Solid Waste Program Administrator. September 14.
- San Juan County. 2012. Solid and Hazardous Waste Management Plan. San Juan County Public Works Department, Solid Waste Division. September 12.
- San Juan County Department of Emergency Management. February 2010. San Juan County/Town of Friday Harbor Comprehensive Emergency Management Plan.
- San Juan County. 2009. San Juan County Comprehensive Plan. Revised June.
- San Juan County. 2005. Water Resource Management Plan. WRIA 2. October.
- Washington State Department of Ecology. 2016. 2015-2016 Washington Statewide Waste Characterization Study. Publication 16-07-032. October 31.
- Washington State Department of Ecology. 2015. Moving Washington Beyond Waste and Toxics Plan 2015 Update. The State Solid and Hazardous Waste Plan. Publication 15-04-019.
- Washington State Department of Ecology. February 2010a. Guidelines for Developing Local Comprehensive Solid Waste Management Plans and Plan Revision. Publication #10-07-005.
- Washington State Department of Ecology. 2010b. Beyond the Curb – Tracking the Commingled Residential Recyclables from Southwest WA. Publication No. 10-07-009.
- Washington State Department of Ecology. Revised February 2010c. Guidelines for Developing and Updating Local Hazardous Waste Plans. Publication #10-07-006.
- Washington State Office of Financial Management. Population. County and City Data for San Juan County. <http://www.ofm.wa.gov/pop/default.asp> and <http://www.ofm.wa.gov/pop/april1/housing.pdf>

Washington Utilities and Transportation Commission. 2001. Cost Assessment Guidelines for Local Solid Waste Management Planning. August.

US Bureau of Economic Analysis, Regional Economic Analysis, Local Area Personal Income, counties. Accessed on <http://www.bea.gov/>

APPENDIX A

SUMMARY OF 2012 PLAN GOALS

Table A-1. Summary of Previous Plan Goals		
	Status in July 2017	
	Ongoing	Completed
Goal: Support Waste Prevention		
<u>Objective:</u> Identify methods to reduce sources of potential waste to prevent items from entering the San Juan County waste stream		
* Continue emphasis on home composters and support for home composting.	✓	
* Retain public land suitable for community composter operation	✓	
<u>Objective:</u> Reduce the volume and toxicity of materials brought to the islands		
* Consider banning plastic grocery bags to reduce their presence in the waste stream and their litter potential.		✓
* Encourage purchasing habits that prevent waste containing toxic ingredients from entering the local waste stream	✓	
Goal: Support reuse and waste diversion		
<u>Objective:</u> Reduce the volume of waste leaving the islands		
* Promote reuse as the first and best alternative to discarding any item and raise awareness of conservation and waste reduction by encouraging reuse	✓	
* Facilitate continued reuse operations at the Exchange and assist the Lopez Take It or Leave It to transition to non-County management		✓
*Promote the work of local non-profit reuse organizations	✓	
*Support reuse of construction and demolition debris	✓	
Goal: Support programs to increase recycling		
<u>Objective:</u> Implement route collection of garbage and commingled recycling		
*Ensure commingled recyclables are collected by the certificated hauler when the County ceases operations at solid waste facilities		✓
<u>Objective:</u> Recycle greater volume and more types of items. Achieve the Washington State goal of a 50-percent recycling rate by 2018		
*Develop incentives to recycle more materials	✓	
*Recycle more types of items as new markets arise	✓	
*Whenever fee schedule changes for garbage and recycling are proposed, consider any potential effects on waste	✓	

Table A-1. Summary of Previous Plan Goals		
	Status in July 2017	
	Ongoing	Completed
reduction		
*Remain open to new island programs for recycling	✓	
*Make information about recycling accessible and widely distributed	✓	
Goal: Develop reuse and recycling programs for construction and demolition debris		
<u>Objective:</u> Establish practices that divert construction and demolition debris from the county waste stream		
*Establish/circulate information regarding local or regional locations for construction and demolition debris for reuse and recycling	✓	
*Promote recycling and reuse of materials from existing structures at the time of permit application	✓	
Goal: Ensure a reliable and sustainable system for collection of garbage and recyclables throughout the county		
<u>Objective:</u> Using County-Operated Facilities		
*Repair and maintain all facilities for compliance required to bring facilities up to state-required minimum functional standards for environmental permits and safety		✓
<u>Objective:</u> Using Primarily Route Collection		
*Cease County operations at solid waste facilities		✓
*Continue to provide household hazardous waste collection events at a suitable location		✓
*Ensure commingled recyclables are collected by the certificated hauler.		✓
*Rely on local and mainland businesses to collect special wastes, which are not included in commingled recyclables	✓	✓
Goal: Extend services to residents of non-ferry-served islands		
<u>Objective:</u> Provide some collection services to residents of islands with no state ferry service.	✓	
Goal: Match County transfer facility operations to the selected collection system.		
<u>Objective:</u> Continue and improve current system of County-Operated Facilities		
*Repair and improve County structures to meet state requirements		✓
*Develop inter-local agreement with Skagit County for garbage transfer		✓
*Evaluate alternative, non-County, operation of transfer stations		✓
*Consider relocation of San Juan Island facility to adjacent County-owned property	✓	

Table A-1. Summary of Previous Plan Goals		
	Status in July 2017	
	Ongoing	Completed
Objective: Discontinue County operation of solid waste handling facilities but to ensure availability of the facilities to other, private, operators.		✓
*Develop inter-local agreement with Skagit County for garbage transfer		✓
*Cease County operations at the three County solid waste facilities		✓
*Offer to lease County solid waste facilities to a non-County service provider		✓
*Maintain the option for County operation of facilities.		✓
Goal: Support existing reuse facilities on County sites		
Objective: keep reuse activities at Orcas and Lopez sites in operation.		
*Support reuse activities at County solid waste sites		✓
*Provide greater stability for the Exchange at the Orcas facility		✓
*Maintain the operation of the Take It or Leave It at the Lopez facility, and remain open to proposals for independent management		✓
*Facilitate continued reuse operations at the Exchange		✓
*Assist the Lopez Take It or Leave It in transitioning out of County management		✓
*Encourage reuse facilities	✓	✓
Goal: Ensure disposal of garbage and materials recovery from recyclables at locations in compliance with regulations that protect public health		
Objective: Find and use qualified transport for disposal and materials recovery		
*Determine cost for a contract carrier to transport the County's collected garbage to a regional transfer station such as Skagit County, or to haul directly to a landfill		✓
*Determine cost for a contract carrier to transport the County's collected recyclable materials to a recyclables transfer facility in Skagit County		✓
*Ensure legal access for San Juan County and its contractors to the Skagit County facilities		✓
*Ensure funding is established for contracted transport services or for investing in equipment		✓
Objective: Transport route and drop-off collections of garbage and recyclables to other counties' transfer facilities or to privately operated facilities within San Juan County		
*Establish agreements for use of facilities in Skagit County to accommodate San Juan County solid waste		✓
*Include transfer and disposal provisions in the level of		✓

Table A-1. Summary of Previous Plan Goals		
	Status in July 2017	
	Ongoing	Completed
service ordinance		
Goal: Continue to develop and provide education and outreach services that support reducing waste volumes and toxicity		
<u>Objective:</u> Increase waste reduction, reuse and recycling by providing information, programs, opportunities, and networking for county residents		
*Think creatively and inclusively	✓	
*Network and research various approaches and programs	✓	
*Provide a variety of sites and meetings for community information	✓	
*Provide information tailored to particular interest groups and demographics, including tourists.	✓	
*Partner with the Town of Friday Harbor on education and outreach services and materials	✓	
<u>Objective:</u> Ensure notice of collection and home composting events are widely available		
*Use various media for notification	✓	✓
Goal: Provide advance information to implement new programs and changes in operations		
<u>Objective:</u> Orient solid waste system users and familiarize them with changes in county solid waste management systems for easier transitions		
*Commit resources to providing timely and comprehensive information	✓	✓
Goal: Continue to promote school and after-school programs		
<u>Objective:</u> Familiarize educators and students with important waste management practices, especially the benefits of waste reduction, reuse, and recycling		
*Work closely with educators in preparing classroom and extracurricular materials and provide staff directly available to students to advise on their projects	✓	
Goal: Provide information on what to recycle and how to prepare it.		
<u>Objective:</u> Maintain multiple sources of information		
*Consider different audiences and tailor presentations accordingly	✓	
Goal: Develop a volunteer training program		
<u>Objective:</u> Involve the local communities and individuals in waste reduction programs through volunteer participation		
*Identify specific interests and match with projects	✓	
Goal: Meet governmental public health, environmental, and financial obligations		
<u>Objective:</u> Ensure garbage and recycling collection and transport to a legally approved solid waste handling facility are provided		✓

Table A-1. Summary of Previous Plan Goals		
	Status in July 2017	
	Ongoing	Completed
*Facilitate the transition to a primarily route collection solid waste system		✓
Objective: Operate system in a fiscally responsible manner		
*Consider a range of options for solid waste management that creates a long-term sustainable system	✓	✓
*Continue to seek systems that lead to the lowest costs and the most complete services for county residents and businesses	✓	✓
*Select and implement the system that provides the required services at a reasonable cost for those services	✓	✓
*Incorporate flexibility to accommodate future needs	✓	✓
Objective: Determine what operations and services are realistic under the County budget constraints and facilitate systems to deliver them		
*Continue to fulfill health, fiscal, and public service obligations	✓	✓
*Implement a primarily route collection system		✓
*Prepare and make County sites available for lease		✓
*Work together with the Town of Friday Harbor to provide an opportunity for lease of a facility on San Juan Island, should the Town determine to make its Sutton Road site available for lease as a solid waste handling facility		✓
Goal: Recognize waste reduction programs and public information are essential to effective solid waste management		
Objective: Continue and improve programs for waste reduction, reuse and outreach for education and collection events		
*Commit annual funding to collection events and to education programs	✓	✓
*Maintain and disseminate current information about recyclable materials, use of recycled-material products, reuse opportunities, composting and otherwise preventing materials from entering the waste stream generated in San Juan County	✓	✓
Goal: Provide island communities with greater opportunities for self-determination		
Objective: Develop opportunities for more local control of operations, including leasing county facilities, establishing disposal districts, and partnerships with not-for profit organizations		
*Advise new management entities on facility operations and provide data, as needed		✓
*Study feasibility of land use designation for community composting and identify any properties appropriately	✓	✓

Table A-1. Summary of Previous Plan Goals		
	Status in July 2017	
	Ongoing	Completed
designated for such solid waste handling		
*Adjust Rural land use designations definitions to accommodate community composting	✓	
Goal: Remain current and open to new management systems and technologies as they arise and information becomes available		
<u>Objective:</u> Maintain a working knowledge of and keep current with knowledge of developing technology and systems for solid waste reduction, handling, and disposal in order to implement them whenever it is appropriate and feasible.	✓	✓
Goal: Reduce the volume of household hazardous waste disposal from the islands		
<u>Objective:</u> Reduce the need for County hazardous waste management and associated costs		
*Promote existing County and other available programs, such as those of the State Beyond Waste Plan, that emphasize waste prevention to reduce the amount of hazardous materials entering the waste stream	✓	
<u>Objective:</u> Reduce volume of hazardous waste disposal from SQG businesses	✓	✓
*Continue working with the County Local Source Control Pollution Prevention Specialist to encourage island businesses to switch to non- or less-toxic processes and products	✓	
*Continue to coordinate pickups by mainland recycler for business-generated used oil and antifreeze	✓	
<u>Objective:</u> Shift from government-funded collection to manufacturers taking full responsibility for reuse/recycling and disposal		
*Support product stewardship initiatives	✓	
Goal: Reduce health and environmental risks associated with potential exposures from improper use, storage, and disposal of hazardous waste and recyclables		
<u>Objective:</u> Review current local solid waste regulations for consistency with any updated or new hazardous and moderate risk waste rules in the State	✓	✓
<u>Objective:</u> Support education programs such as the County's Local Source Control Program to reduce pollution risks	✓	✓
*Provide at least one technical assistance visit to at least 75 percent of SQGs in the county by 2014	✓	
*Work with home and businesses owners and renters to	✓	

Table A-1. Summary of Previous Plan Goals		
	Status in July 2017	
	Ongoing	Completed
make them more aware of lead hazards and resources, including do-it-yourself lead hazard assessment		
*Consider joining the Northwest Clean Air Agency to provide additional school education and to provide more direct response to outdoor burning complaints (enforcement).	✓	
Goal: Continue to facilitate proper hazardous waste disposal for households and businesses		
<u>Objective:</u> Provide at least one annual collection event at solid waste facilities or otherwise suitable location on each ferry-served island	✓	✓
*Continue to apply for state grant funding for household hazardous waste collection events	✓	✓
*Research options for providing more frequent than annual household hazardous waste collections for households and businesses in response to community requests	✓	
*Encourage development of a more sustainable funding source for hazardous waste export and disposal	✓	
*Because collection events will serve the residents and Small Quantity Generator businesses (SQGs) in the Town of Friday Harbor, coordinate the events the with the Town administration for advertising, participation, and funding	✓	✓
<u>Objective:</u> Encourage the switch to non-toxic or less-toxic products		
*Implement and publicize a County Environmentally Preferred Purchasing (EPP) policy and program as a model for the community	✓	
<u>Objective:</u> Encourage more recycling of household hazardous wastes		
*Assist local retailers who have an interest in participating in new recycling programs as opportunities and new markets arise (e.g. household alkaline batteries).	✓	
*Promote the state’s Mercury Lights Recycling Law, as well as additional Product Stewardship regulations as they develop	✓	

APPENDIX B

COUNTY AND TOWN COUNCIL RESOLUTIONS

APPENDIX C

COMMUNITY COMPOSTING

The most current regulations for composting facilities can be found in the Washington Administrative Code, Chapter 173-350-220: <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-350-220>.

The Department of Ecology's website <http://www.ecy.wa.gov/programs/swfa/organics/soil.html> provides information on:

Compost Facility Resources

- [Composting Facility Standards \(WAC 173-350-220\)](#)
- [Organics Management Facilities: Do I need a Solid Waste Permit?](#)
- [Solid Waste Permit Application Checklist](#)
- [Annual Composting Facility report form \(for health departments and Ecology\)](#)
- [Compost Facility Annual Summary of Lab Analysis Form](#)
- [Odor Prevention, Management/Mitigation Plan Requirements](#)
- [Find an accredited laboratory](#)
- [LID Toolbox for Compost Businesses](#)
- [Siting and Operating Composting Facilities in Washington State Good Management Practices](#)
- [Reducing Greenhouse Gas Emissions through Recycling and Composting](#) (West Coast Climate and Materials Management Forum)
- [Exemptions from solid waste permitting for agricultural composting operations](#)
- "On-Farm Composting Handbook" (NRAES-54 June 1992). Request a copy by contacting Plant Life and Sciences ([PALS](#)) Publishing, call 607-255-7654 or email palspublishing@cornell.edu

Find a Compost Facility in Washington State

- [2015 Washington Compost Facilities](#)

Farm/Agriculture

- [Exemptions from solid waste permitting for agricultural composting operations](#)
- "On-Farm Composting Handbook" (NRAES-54 June 1992). Request a copy by contacting Plant Life and Sciences ([PALS](#)) Publishing, call 607-255-7654 or email palspublishing@cornell.edu

Composting at Home

- [A User's Guide to Compost](#) (Ecology, WORC, Soils for Salmon)
- [Backyard Composting, It's Only Natural](#) (EPA)
- [Building Healthy Soil](#) (Ecology)
- [Buying Topsoil/Soil Blend Products](#) (Ecology)
- [Buying and Using Compost](#) (Ecology)
- [Buying and Using Organic Mulch](#) (Ecology)
- [Focus on "Biobased", "Biodegradable" and "Compostable Plastics"](#) (Ecology)
- [Home Composting 101](#) (Skagit County)
- [Natural Yard Care](#) (Seattle, King County, Ecology)
- [Why Compost?](#) Also available in [Spanish](#). (Ecology)

See the footnotes to each of the titles above for the web addresses of each document.

Ecology also has produced a guidance document for building larger-scale commercial composting operations called *Siting and Operating Compost Facilities in Washington State, Good Management Practices*. It is found at:

<https://fortress.wa.gov/ecy/publications/publications/1107005.pdf>.

APPENDIX D

SUMMARY OF SOLID WASTE FACILITIES

Location/ Name	Area - used/ acres	Landfill	Local population	FACILITIES	ACCESS & TRAFFIC All traffic and volume figures are for 2016	Deficiencies and improvements needed in handling current SW stream
San Juan Island	0.83 acres in use 2 acres total (owned by town of Friday Harbor)	closed	7,810 (Approx. 2,250 in Town of Friday Harbor)	Scale Scale house Enclosed Tipping Floor for garbage Drop boxes for commingled recyclables E-Waste storage area 5,000 gallon oil storage with secondary containment	Open 4 days/week <u>Traffic</u> 21,519 Self-haul vehicles Including SJS and Town vehicles <u>Volume</u> Garbage 5,526 tons Recyclables 960 tons (Includes Town of Friday Harbor and SJS)	<ul style="list-style-type: none"> • No trailer tarping station • No covered equipment parking and soil exposed to fluids leaking from equipment • Cover partially-filled haul trailers during closure hours • Garbage containers occasionally leak
Lopez	0.4 acres in use 1.5 acres total	none	2,466 Lopez residents	Z Wall Drop boxes - garbage Drop box - commingled recyclables Office building Sortable Recycling Bins Re-use collection & redistribution shed Kiosk/pay station	Open 3 to 4 days/week depending on season <u>Traffic</u> 23,169 Self-haul vehicles <u>Volume</u> Garbage - 620 tons Recyclables - 282 tons	<ul style="list-style-type: none"> • No scale • White goods (appliances) not covered • Access to reuse facility • Traffic congestion • Garbage containers occasionally leak
Orcas	1.09 in use 14 acres total	closed	5,395 Orcas residents	Scale Scale house Z-wall Enclosed tipping floor Drop box for garbage Drop boxes for commingled recyclables Exchange building	Open 3 days/week <u>Traffic</u> 28,579 Self-haul vehicles 610 SJS vehicles <u>Volume</u> Garbage 5,189 tons Recyclables 1,474 tons, (Includes SJS)	<ul style="list-style-type: none"> • No trailer tarping station • No covered equipment parking and soil exposed to fluids leaking from equipment • Structural assessment required for tipping floor building • Cover partially-filled haul trailers during closure hours • Garbage containers occasionally leak

APPENDIX E

2017 FEE SCHEDULE

Table E-1. Fee Schedule for County Solid Waste Facilities (2017)			
San Juan Transfer Station			
Type		Unit	Total (Inc. Tax)
Garbage	Self-Haul	per ton	\$347.21
	Cert-Haul		\$165.00
	Minimum	112 pounds	\$19.75
Recyclables	Commingled	per ton	\$142
	Commingled	32 gal can	\$3
	Clean Woody Debris	per ton	\$294
Other Items	Appliances	per unit	\$22
	Refrigeration Unit	per unit	\$56
	Oil (> 5gallons)	per gallon	\$0.15
	Batteries	per item	\$5
	TVs, Monitors, CPUs		Free
Orcas Island Transfer Station			
Garbage	Self-Haul	per ton	\$300.00
	Cert-Haul		\$195.00
	32 Gallon Can	per can	\$9.00
Recyclables	Commingled	per ton	\$200
	32 Gallon Can	per can	\$4.00
	Aluminum Cans		Free
	Refrigerators/Freezers	each	\$55
	Other Appliances	each	\$22
	Small Appliances	each	\$15
	TVs, Monitors, CPUs		Free
	Small Electronics	each	\$7
	Motor Oil	per gallon	\$2
	Antifreeze	per gallon	\$2
	Used Cooking Oil	per gallon or ton	\$0.50 or \$100
	Batteries	per pound	\$2
	Vehicle Batteries		Free
	Fluorescent Tubes/bulbs		Free
	Green Yard Waste	per ton	\$100
Lopez Solid Waste Disposal District			
Garbage	32-gallon Can	per can	\$8.00
	Per gallon	per gallon	\$0.25
	Per cubic foot	per cubic foot	\$1.87
	High-Density (per ft ³)	HD per cubic foot	\$3.74
Recyclables	Commingled	32-gallon can	\$5.00
		Per gallon	\$0.16

Table E-1. Fee Schedule for County Solid Waste Facilities (2017)			
		Per cubic foot	\$1.17
	Source-Separated		Free
	Appliances	each	\$22
	Refrigerator	each	\$56
	TV, Printer, Monitor	each	\$4
Town of Friday Harbor (Curbside)			
	Base Charge	per month	\$4
	Garbage	per can	\$8
	Commingled Recyclables	per can	\$2
	Yard Waste	per can	\$2
San Juan Sanitation (Curbside)			
	Garbage & Commingled Recyclables	1 Can Weekly	\$42.97
		1 Can Every Other Week	\$27.43
		1 Can Per Month	\$19.06

APPENDIX F

COUNTY CLOSED LANDFILLS

Responsibilities

Five publically owned landfills have been closed in San Juan County in compliance with state requirements. These are the County's two Orcas Island landfills and one Lopez Island Landfill and the Town of Friday Harbor's two landfills on San Juan Island.

Closed Orcas Island Landfills

The two closed Orcas Island landfills are located on 31 acres of County land shared with the operating Orcas transfer station. The parcel is approximately 3 miles southwest of East Sound on an upland area between Crow Valley to the west and East Sound to the East at 3398 Orcas Road. The two adjacent closed landfills, separated by an access road and drainage ditch, occupy approximately 10 acres of the 30-acre parcel immediately northwest of the operating transfer station. The larger of the two landfills (8.7-acres) contains municipal solid waste (MSW) and the smaller landfill (1.1-acre) contains construction and demolition (C&D) waste. The County is responsible for the post-closure maintenance and monitoring of both landfills.

Waste was placed in the MSW landfill from 1967 to 1994. The landfill closure design was completed in 1993, and closure was conducted between September 1994 and June 1995 in accordance with Washington Administrative Code (WAC) 173-304. A composite soil-geomembrane cover was installed and surface water drainage control structures constructed on and around the perimeter of the cover as part of the closure construction. Additionally, a gas monitoring and venting system was installed as part of the closure plan. In 2013, a passive ventilation system was installed along the northeast section of the landfill in an effort to reduce potential off-site migration of landfill gas. Ground water quality is monitored by a system of monitoring wells installed in 1981 around the perimeter of the landfill. In 2012, an additional monitoring well, MW-10 was installed next to the northeast corner of the landfill.

Construction and demolition waste was placed in the C&D landfill until 2003. The landfill was closed in 2004. As part of final closure a cover of soil and vegetation was installed and surface water ditches constructed around the perimeter of the cover to intercept run-on and collect run-off. The ditches convey the storm water to a culvert that discharges to the ditch between the C&D landfill and MSW landfill.

Closed San Juan Island Landfills

The closed San Juan Island landfills are located on a 26-acre parcel owned by the Town of Friday Harbor. The parcel is approximately 3 miles northwest of Friday Harbor at 212 Sutton Road. The closed landfills occupy approximately 4 acres. The County operates its San Juan transfer facility on 2 acres of the parcel leased from the Town immediately adjacent to the closed

landfills. The larger of the two landfills (2.3-acres) contains MSW and the smaller landfill (1.7-acres) contains ash waste from the Town's former onsite municipal solid waste incinerators.

Beginning in the 1930's, the MSW landfill area served as a dumping ground. Overtime it evolved to serve as a MSW landfill. Disposal ended in 1979 when the MSW landfill was closed according to the closure requirements of WAC 173-301. Landfill closure included coverage of the landfill with 1 foot of soil. Later, during completion of the ash waste landfill closure, the existing MSW portion cover system and drainage were improved by upgrading the drainage system and adding a layer of topsoil to approximately 80 percent of the landfill. In addition, the area along the west side of the MSW portion, referred to as the storage yard area, was covered with 1 to 4 feet of additional soil, graded to promote drainage, and surfaced with 4 inches of gravel. Runoff is transferred through a drainage ditch at the perimeter of the closed landfills to a storm water detention pond south of the landfills.

The Town of Friday Harbor's ash waste landfill operated from 1979 to 1993. The ash landfill was kept separate from the MSW landfill to control ignition of the unburned MSW from the ash waste. In April 1993, the ash waste portion stopped receiving ash waste, and closure began under WAC 173-304. The cover system on the closed ash waste landfill includes a passive gas collection piping and venting system beneath a landfill cap consisting of a foundation layer, a geosynthetic barrier layer, a drainage layer, and a topsoil vegetation layer.

The initial groundwater monitoring well network was installed surrounding the MSW landfill in 1990. Additional groundwater monitoring wells were installed in 1995 following closure of the ash waste landfill to provide for monitoring points downgradient of the ash waste. In 2007, the groundwater monitoring network was enhanced to include monitoring wells downgradient of the ash waste landfill wells based on detected concentrations of chemical constituents, and presumed water quality impacts.

Closed Lopez Island Landfill

The closed Lopez Island general purpose landfill is located on a 23-acre parcel of County land on Lopez Island off Port Stanley Road. Municipal solid waste was placed in the landfill until 1981. In 1981, the County closed the landfill in accordance with WAC 173-301 and continues to be responsible for maintenance. Landfill closure included coverage of the landfill with 1 foot of soil. No landfill gas or ground water monitoring was required and no systems to do so were installed.

APPENDIX G

EDUCATION

Two types of education programs are important to the success of waste management in San Juan County.

The first is to ensure that the residents and any others using the waste system are kept well informed during the transition from county-managed facilities to a primary reliance on route collection. This transition could involve using privately managed facilities for delivery of recyclables, garbage, or special wastes.

In accordance with WAC 480-70-361(7)(a) and San Juan County ordinance No. 2-2012 , the route collector is responsible for keeping customers informed of schedules and of informing them of proper preparation for recyclable materials.

The education need to continue to promote public engagement in activities that result in waste reduction is best led by the County: providing the list of recyclable materials, providing school programs and adult education on composting, bulk purchasing and reduction of unwanted packaging materials.

GROUPS TO ADDRESS IN EDUCATION AND OUTREACH

The U.S. Department of Commerce, Bureau of Economic Analysis, estimates that the average per capita income in San Juan County in 2015 was \$66,255, ranked second behind King County. The Washington state average was \$51,898. Further, personal income sources for San Juan County residents was primarily from dividends, interest, and rents.

In 2015, the largest population segment in San Juan County was between the ages of 60 to 69 with 55 being the overall median age. The following table attempts to assign interests, programs, and effective media grouped by generation, with a goal of beginning to strategize means to engage people in solid waste programs and initiatives.

Table G-1. Education Programs and Media			
Generational Group of County residents in 2015		Interests and Opportunities	Target Programs and Media
AGE	# persons		
5 - 14	1,301	Classroom projects, waste reduction, gardening, vermicomposting	Class projects, afterschool groups, lunchroom composting, library presentations
15 - 19	701	Science classes, waste reduction, recycling, composting, climate change	School and afterschool programs Websites. Projects with school credit or college entrance credits
20 - 29	1,180	Reduction, reuse, recycling Environmental conservation	websites, workshops. news releases, electronic social media, phone calls and email questions
30 - 39	1,390	Children's activities, future economic and environmental conditions. Costs and convenience, boating for both groups.	Mailings, websites, workshops, public meetings, news releases, electronic social media, phone calls and email questions for both groups.
40 - 49	1,763		
50 – 59*	2,828	Community, future economic and environmental conditions. Costs and convenience, boating	Public meetings. Volunteer projects, websites, mailings, news releases, personal recommendations, phone calls and email questions
60 – 69*	3,557	Community, future economic and environmental conditions. Costs and convenience, boating	Public meetings. Volunteer projects, websites, mailings, news releases, personal recommendations
70 - 79	2,085	Community	Public meetings. Volunteer projects, websites, mailings, news releases, personal recommendations
80 +	1,012	Community	Personal networking

Solid waste projects can enhance the County's networking with school programs. Ecology and educational grant programs can be sought to support materials, visits by specialists, information and curriculum development. Hands-on programs, such as recycling paper, composting, and science fair projects will be appealing to the student age groups.

In the adult population, young adults between 20-29 and 30-39 among others, will be interested in activities such as litter clean-ups, and participation in committees and advisory groups (e.g., SWAC).

Families with children and business entrepreneurs may also be included in the 40-49 group, suggesting particular educational activities.

The largest age groups by decade are 50-59 and 60-69 and are often represent retirees who may have more blocks of volunteer time available.

Note that the tourist population and seasonal residents, who count their primary residence elsewhere, will be coming with information local to their own residences, and constitute a group with yet another perspective to be addressed in solid waste education.

Outreach Possibilities for Community Groups

- School Groups – in-school, after school, and youth activities; mentoring; County Fair; Children’s Festival
 - Additional hands-on outreach by staff to educate K-12 students on the 3 R’s (reduce, reuse, recycle). Supporting existing school activities with posters, handouts, etc. is important. Education activities can be focused on creating awareness and enthusiasm in youth at school who can carry home the message to reduce, reuse, and recycle.
 - Community clean-up days (e.g., Great Islands Cleanup on Earth Day).
 - Outreach to engage students in web design, videos, and other outreach products.
- Volunteers – retired persons can help with education projects, as well as with litter cleanups. Their interest in serving on boards and committees can help to spread the word throughout a larger audience.
- Grant funding from Ecology can fund eligible projects defined in grant application. These projects could focus on age cohorts, businesses, etc.
- County Solid Waste Program Administrator and Facility Operators – coordination with efforts to reduce use of paper and other supplies, reduce toxins in cleaning supplies, and promote more use of rechargeable batteries.
- Composting program partners – farming and gardening agencies and local non-profit organizations such as WSU Master Gardeners, WSU Extension Agriculture Program, San Juan Islands Conservation District, SJC Agricultural Resources Committee. The San Juan Islands Conservation District website has an extensive list of local, regional, and state resources on all aspects of composting.

Responsibility for Education Programs

San Juan County's waste reduction efforts have been implemented by the Solid Waste Program. Education should be expanded to even include greater variety in media approaches, more specific audience targeting, and initiation of good public relations.

In the transition to route collection, the collection company will handle the basics of helping the public know what is recyclable and what are the collection schedules, fees, and options.

Techniques

New programs to be implemented will need advance education. For example, when curbside collection of recyclables was added to services, planning included information fact sheets using media that could include mailing, newspaper inserts, community bulletin boards and designated people trained to discuss this new program with civic and environmental groups.

Diverse approaches are needed such as:

- One-to-one discussions/personal experiences,
- Professional assistance through workshops,
- Mailings,
- Tabloid or flier inserts in newspaper to explain any changes in the system: before, during and after,
- Radio, and
- Roadside message boards

RECOMMENDED STRATEGIES

Always consider the audience in the design and wording of materials and in the presentation and media.

Messages that include:

- Product - benefits associated with the desired actions.
- Price - minimum cost to the consumer.
- Place - reuse facilities, collection points -make them available in places that reach the audience and fit its lifestyles.
- Promote - maximize the desired responses creatively.

Media – to design and carry out promotional campaigns, use:

- New logos, slogans, overarching logo for new programs;
- Design with color-specific messages;
- Printed materials;

- Web pages;
- Mailings;
- Press releases;
- Advertising;
- "Oops" tags when source separation is not practiced;
- Courtesy letters to residents not recycling; and
- Video or photos of Council members handling their own recyclables at home.

Tools – Social marketing:

- Find the common elements among the county's populace that will tip an education campaign into success. Early focus group discussions will be useful for years to come on community values.
- Integrate well-thought out messages with graphic design material, signage, brochures, classroom exhibits, websites and posters/slogans on the sides of trucks for:
 - Collection events
 - Home and business visits
 - Presentations to groups
 - Community meetings and workshops
 - Hotline telephone and email
 - County fair
 - Parades/events/picnics for Earth Day, Memorial Day and 4th of July.
- Develop tabloid information piece to be inserted into local newspapers that displays the services of the Solid Waste Division and highlights the new programs.

Determine program costs and funding sources.

PROGRAM EVALUATION CRITERIA AND PROCESS

The success of an education campaign depends on the support of citizens, government agencies and elected officials (i.e., adequate funding). Measurements include:

- Positive response from public to changes, and
- Waste reduction and recycling from point of entry efforts.

Strategies

- Use newspaper and on-line advertising.
- Design posters and signs displaying what is recyclable and what is garbage or special or hazardous waste and place them at relevant locations, such as drop boxes.
- Present recyclable items and lists in a variety of ways such as illustrating the list of recyclables and grouping materials.
- Maintain county website and keep it current.

- Consider updating and re-printing of the Hazardous Waste Guidelines and other useful brochures or booklets.

**PREVENT WASTE BEFORE
YOU BUY, USE, OR DISCARD AN ITEM**

Ask yourself:

<i>Can I buy this product with less packaging?</i>	Reduce
<i>Can I or someone else use this again?</i>	Reuse
<i>Can I recycle this product after I use it?</i>	Recycle
<i>Can I get this item with recycled content?</i>	Buy recycled

Sample slogans and programs

- Bring Your Own Bag
- Say No to Packaging
- Say No to Junk Mail

REDUCE

Reducing your consumption saves you money and conserves our natural resources:

- Look for durable products and packaging made from renewable resources;
- Close the loop, buy products made from post-consumer recycled material;
- Choose products that have fewer disposable parts; and
- Use reusable water bottles, travel mugs, shopping bags, lunch bags, etc.

REUSE

Conventional reuse is when something is used again for the same function. New-life reuse is when an item is used for a new function. By exchanging useful products, without reprocessing, reuse helps save time, money, energy and resources. What can you reuse today, before throwing it out or recycling it?

Provide education programs to schools including zero waste school projects; grade 4-6 classroom visits; units on waste reduction, recycling, composting, and resource reduction; and waste-free lunch program (apply zero-waste principles to creating a waste-free lunch box for students for kindergarten to high school).

Help your school attain a zero-waste cafeteria with a comprehensive compost and recycling system.

APPENDIX H

HAZARDOUS WASTE INVENTORY

The Washington State Department of Ecology has collected reports and data from property owners and other sources regarding hazardous waste generation and contaminated sites in San Juan County.

Remedial Action Sites: Ecology’s list of confirmed and suspected contaminated sites in San Juan County can be found at <https://fortress.wa.gov/ecy/gsp/sitesearchpage.aspx>. Select San Juan County and scroll down for list of sites. Status and links to reports are available on the site page. There are 41 sites identified by Ecology as confirmed and suspected contaminated sites in the County.

Transporters & Facilities that Treat, Store, Dispose & Recycle Hazardous Waste: Because there is no licensed hazardous waste treatment, storage and/or disposal facility located in San Juan County, MRW is shipped to mainland facilities using a registered hazardous waste transporter, currently Clean Harbors Environmental Service under a State of Washington contract. The County’s current oil and antifreeze recycler is ORRCO (Oil Re-Refining Company); lead-acid batteries are recycled through various companies depending on the solid waste facility.

Dangerous Waste Generators: As of August 2017, Ecology records indicates there are no regulated dangerous waste generators in San Juan County.

Zone Designation for State Regulated Hazardous Waste Facilities (Treatment and Storage): As noted in the County’s 1991 Hazardous Waste Plan, San Juan County and the Town of Friday Harbor submitted to Ecology a letter dated July 30, 1990, requesting exemption from zone designation requirements for siting hazardous waste facilities in the County, in accordance with RCW 70.105.210-225.

In the 1990 letter, the County and Town demonstrated that: (1) no regulated quantities of hazardous waste had been generated within the jurisdictions during the two years preceding the request; and (2) no significant portion of land within the jurisdictions met siting criteria. As of 2017, the County and Town continue to be exempt from zone designation requirements because of these two criteria.

CESQG: There are about 100 SQGs on the islands that have participated to some degree in County hazardous waste collection events over the last several years. Table H-1 provides a list of these SQG’s.

Table H-1. Businesses Participating in County Hazardous Waste Collection Events	
Island	Business Name
San Juan Island	ACE Hardware Bailer Hill Construction Benedict Repair Benz Painting Browne’s Home Center Christopher Burke Furniture Daniels Property Management LLC Earth Box Inn Fan Fab Handyman Friday Harbor Electric Co. Friday's Crab House Hillside House B&B Island Bicycles Island Electric Island Gardens Island Dental Jensen’s Shipyard Kings's Market Lawson Excavation Life Care Center of SJIs Luxel Corp. Mancuso Design & Construction Market Place Mi Casita Ogle Painting Port of Friday Harbor SJC Buildings & Grounds San Juan County Operations San Juan county Parks Port of FH Airport Printonyx San Juan Island Fire District #3 San Juan Island Grange Simonson Land Co. SJI Library SJI National Historical Park San Juan Island School District Town of Friday Harbor Wheeler Construction Wolf Hollow WRC Youngquist Construction
Orcas Island	ACE Hardware

Table H-1. Businesses Participating in County Hazardous Waste Collection Events	
Island	Business Name
	Brenda Ivans, DDS/Whales Tooth Dental Classic Body & Paint Crescent Beach Service Davis Autobody Deer Harbor Boat Works Deer Harbor Marina Doe Bay Resort Foster Point Water System Golden Tree Farm Grindstone Ink Print Shop Hayworth Design & Construction Indralaya Kaleidoscope Moran State Park Moran State Park (Sucia) New Horizons Painting Morning Star Builders Orcas SJI County Shop Orcas Recycling Center Orcas Island Fire District #2 Orcas Island Medical Center OUR House Building Outer Island Expeditions, LLC Prune Alley Restaurant Resort at Deer Harbor Rosario Resort Rhubarb Construction West Sound Marina & Boat Yard Whiting Woodsong Construction
Lopez Island	Islands Marine Center Lopez Island Fire District #4 Lopez Solid Waste Disposal District Lopez Village Market Island Quality Pinter Start to Finnish Painting WA State Parks / Spencer Spit Jeremy Fedarko Mud Bay Builders Swal'lech Construction Spencer's Landing Marina TanBark Marine

Island	Business Name
	Ascent builders Bayview Dental Tom Lantos Construction Sunset Builders Lopez Golf Course Custom Wood Finishes

APPENDIX I
INTERLOCAL AGREEMENT

RECEIVED

MAY 09 2014

SJC Public Works

SJC Agreement No.
13SW.003

**INTERLOCAL AGREEMENT
BETWEEN
SAN JUAN COUNTY, TOWN OF FRIDAY HARBOR, AND SKAGIT COUNTY
REGARDING RECEIPT OF SOLID WASTE**

No. SKAGIT COUNTY
Contract # C20130187
Page 1 of 7

THIS AGREEMENT (herein the "Agreement") is made and entered into by and between Skagit County, Washington, a political subdivision of the State of Washington, hereinafter referred to as "SKAGIT", SAN JUAN County, Washington, a political subdivision of the State of Washington, hereinafter referred to as "SAN JUAN", and the Town of Friday Harbor, Washington, a Washington municipal corporation, hereinafter referred to as "FRIDAY HARBOR". SAN JUAN, SKAGIT, and FRIDAY HARBOR may be individually referred to herein as a "party", and may be collectively referred to herein as the "parties."

WITNESSETH:

WHEREAS, SKAGIT, SAN JUAN, and FRIDAY HARBOR are each individually responsible for managing solid waste pursuant to Chapter 70.95 RCW; and,

WHEREAS, SKAGIT, SAN JUAN, and FRIDAY HARBOR desire to work cooperatively on regional solid waste handling and disposal issues; and,

WHEREAS, all Parties acknowledge the benefits to be gained from a cooperative approach to solid waste issues such as avoidance of duplication of services and potentially resulting in lower costs to the rate payers; and,

WHEREAS, pursuant to the authority granted by Chapter 39.34 RCW, Interlocal Cooperation Act, the State of Washington allows and encourages cooperative Solid Waste Programs among regional jurisdictions; and,

WHEREAS, SAN JUAN and FRIDAY HARBOR have determined that transportation of their solid waste to facilities operated by SKAGIT is in the best interests of its citizens; and,

CC: AUD (1)
Council (1)
PW (2 copies)

5/9/2014 AEE

WHEREAS, SKAGIT has developed infrastructure and contractual relationships with sufficient capacity to currently serve the solid waste disposal needs of SAN JUAN, FRIDAY HARBOR, and SKAGIT; and,

WHEREAS, SKAGIT is willing to accept and process solid waste from SAN JUAN and FRIDAY HARBOR (subject to and in accordance with the terms of this Agreement).

NOW, THEREFORE, in consideration of the foregoing, and in consideration of the following terms and conditions, the Parties mutually agree as follows:

1. PURPOSE OF AGREEMENT AND DUTIES OF THE PARTIES.

1.1 Subject to the terms of this Agreement, SKAGIT will allow disposal of solid waste from SAN JUAN and FRIDAY HARBOR at the Skagit County Transfer and Recycling Station, as delivered by certificated waste collectors, and private operators of SAN JUAN'S and FRIDAY HARBOR'S solid waste facilities at rates established by SKAGIT for Municipal customers that shall further include an Out of County Surcharge. The parties recognize and agree that this Agreement only provides and allows for the disposal of SAN JUAN and FRIDAY HARBOR municipal solid waste (herein referred to as "solid waste") that is destined for landfill disposal, in accordance with the terms of this Agreement, and does not allow or provide for recycling by SAN JUAN and FRIDAY HARBOR, or for the delivery, receipt, and/or disposal of yard debris, special waste, hazardous waste (including household hazardous waste), or any other materials from SAN JUAN and FRIDAY HARBOR.

1.2 The Out of County Surcharge shall be set at a rate of seven dollars (\$7.00) per ton.

1.3 At SAN JUAN'S and FRIDAY HARBOR'S own cost, expense, and liability, SAN JUAN and FRIDAY HARBOR shall both ensure that waste screening procedures at any and all of its public and/or privately-operated solid waste facilities comply with all applicable laws rules and regulations, specifically including, but not limited to Washington State solid waste disposal laws, rules, and regulations and shall ensure that such waste screening procedures are consistent with those employed at SKAGIT's facilities. SKAGIT reserves the right to perform compliance audits and refuse any non-compliant loads from SAN JUAN and FRIDAY HARBOR. SAN JUAN and FRIDAY HARBOR shall comply with all reasonable billing practices as may be required and/or implemented by SKAGIT (to SKAGIT'S satisfaction), and shall provide SKAGIT with adequate notice of all loads received from SAN JUAN and FRIDAY HARBOR (to SKAGIT'S satisfaction). Except as may be expressly provided to the contrary by the terms of this Agreement, SAN JUAN and FRIDAY HARBOR shall otherwise be solely responsible and liable for SAN JUAN'S and FRIDAY HARBOR'S respective solid waste system(s) and solid waste operations, and to the maximum extent allowed by law SAN JUAN and FRIDAY HARBOR agree to defend, indemnify, and hold SKAGIT harmless from any and all claims and/or damages incurred by SKAGIT arising from or relating to SKAGIT's receipt of solid waste from SAN JUAN and FRIDAY HARBOR pursuant to this Agreement. To the maximum extent allowed by law, SAN JUAN agrees to be liable and responsible for the operations and actions of any Solid Waste Disposal District(s) located in San Juan County (organized pursuant to RCW 36.58), specifically including, but not necessarily limited to, the Lopez Island Solid Waste Disposal District. The parties recognize and agree that for purposes of this Agreement, any solid waste received from any Solid Waste Disposal District(s) located in San Juan County (organized pursuant to RCW 36.58) shall be SAN JUAN solid waste, and shall not be FRIDAY HARBOR solid waste.

1.4 Except as may be expressly provided by the terms of this Agreement, SKAGIT makes no representations or warranties of any kind or of any nature regarding SAN JUAN'S and FRIDAY HARBOR'S solid waste system(s) and/or solid waste operations, and SKAGIT disclaims any interest or involvement in the SAN JUAN'S and FRIDAY HARBOR'S solid waste system(s) and/or solid waste operations. The parties mutually recognize and agree that SKAGIT is not responsible or liable for the operation, use, or management of SAN JUAN'S and FRIDAY HARBOR'S solid waste system(s) and/or solid waste operations in any way.

1.5 Unless specifically stated to the contrary in this Agreement, SKAGIT is not obligated to provide any funds, or perform or provide any other services, duties, or responsibilities pursuant to the terms of this Agreement.

1.6 SAN JUAN and FRIDAY HARBOR recognize and agree that SKAGIT is subject to the terms and conditions of an interlocal agreement establishing the Solid Waste System Governance Board ("SWSGB"), entitled "Interlocal Cooperative Agreement Between Skagit County and Cities and Towns for Solid Waste Management", dated April 30, 2008 (Skagit County Contract # C20080306), as subsequently amended per Skagit County Amendment # A201000124, dated August 23, 2010 (herein the "SWSGB Interlocal").

2. INDEMNIFICATION: Except as provided to the contrary herein, each party agrees to be responsible and assume liability for its own wrongful and/or negligent acts or omissions or those of their officials, officers, agents, or employees to the fullest extent required by law, and further agrees to save, indemnify, defend, and hold the other party harmless from any such liability. It is further provided that no liability shall attach to SKAGIT by reason of entering into this contract except as expressly provided herein.

3. LIMITATION OF LIABILITY; INDEPENDENT ENTITIES. Any party having a claim against SAN JUAN and/or FRIDAY HARBOR, however arising, shall have recourse only to the extent of assets and property of SAN JUAN and/or FRIDAY HARBOR, and shall have no recourse against SKAGIT, or SKAGIT'S appointed or elected officers, employees, volunteers or its/their assets or credits. The parties agree that SAN JUAN and FRIDAY HARBOR are separate and independent parties that do not direct, manage or control the other party's employees, officers, agents, or contractors, or the other party's solid waste or solid waste management activities under this Agreement, and that any actions, omissions, and liabilities of SAN JUAN shall not be construed as actions, omissions, or liabilities of FRIDAY HARBOR under this Agreement, and that any actions, omissions, and liabilities of FRIDAY HARBOR shall not be construed as actions, omissions or liabilities of SAN JUAN under this Agreement.

4. ASSIGNMENT AND SUB CONTRACTING. It is understood and agreed between the parties that this Agreement (or any portion of this Agreement) cannot be assigned, transferred, contracted or subcontracted to any other individual, firm, company, and/or other entity by SAN JUAN and/or FRIDAY HARBOR without prior written permission of SKAGIT.

5. COMPLIANCE WITH LAWS AND TERMS OF GRANTS: The parties to this Agreement shall comply with all applicable federal, state, and local laws, rules, and regulations in carrying out the terms and conditions of this Agreement. If applicable, compliance with laws shall specifically include, but not be limited to, compliance with laws pertaining to the payment of prevailing wage on public works, including, but not necessarily limited to RCW 39.12. If necessary, the parties shall obtain and comply with all necessary permits and approvals from all applicable jurisdictions prior to commencing any work related to this Agreement. Each party individually recognizes and agrees that it shall be solely and

separately responsible and liable for compliance with all terms and conditions of any applicable permits(s) and/or grant(s) obtained or procured in such party's name.

6. **TERM OF AGREEMENT:** Unless sooner terminated pursuant to Section 7., it is agreed by the parties that the term of this Agreement shall be from the date of mutual execution of this Agreement until September 30, 2023; provided, that this Agreement may be extended for up to one (1) additional period of ten (10) years, with the mutual agreement of all parties.

7. **TERMINATION.** This Agreement may be terminated by any party for default by another party (as defined per Section 16, below) by providing the defaulting party (or parties) with ninety (90) days written notification. This Agreement may also otherwise be terminated by any party (at any time and for any reason) by providing the other parties with two (2) years written notification. Such written notification may be personally delivered or mailed postage-prepaid by certified mail, return receipt requested, to the last known addresses of the other parties for the purposes of giving notice under this paragraph. If this Agreement is so terminated, the parties shall be liable only for performance rendered or costs incurred in accordance with the terms of this Agreement prior to the effective date of termination, except that the duty to indemnify (as provided herein), shall survive such termination.

7.1 The respective obligations of the parties pursuant to the terms of this Agreement shall be mutually exclusive in the event of default, breach, and/or in the event that this Agreement is terminated by and between SKAGIT and one other party (either SAN JUAN or FRIDAY HARBOR), and in such an event the terms of this Agreement shall remain in full force and effect with respect to the party for which this Agreement has not been terminated. Specifically, in the event that this Agreement is terminated only between SKAGIT and SAN JUAN, the terms of this Agreement shall remain in full force and effect by and between SKAGIT and FRIDAY HARBOR, and in the event that this Agreement is terminated only between SKAGIT and FRIDAY HARBOR, the terms of this Agreement shall remain in full force and effect by and between SKAGIT and SAN JUAN.

8. **ADMINISTRATION:** The following individuals are designated as representatives of the respective parties. The representatives shall be responsible for administration of this Agreement and for coordinating and monitoring performance under this Agreement. In the event such representatives are changed, the party making the change shall notify the other party.

- 8.1 SKAGIT'S representative shall be the Public Works Director, or his/her designee.
- 8.2 SAN JUAN'S representative shall be the San Juan County Director of Public Works, or his/her designee.
- 8.3 FRIDAY HARBOR'S representative shall be the Town of Friday Harbor's Director of Public Works, or his/her designee.

9. **TREATMENT OF ASSETS AND PROPERTY:** No fixed assets or personal or real property will be jointly or cooperatively acquired, held, or disposed of pursuant to this Agreement.

10. **NO PARTNERSHIP OR JOINT VENTURE:** No partnership and/or joint venture exists between the parties, and no partnership and/or joint venture is created by and between the parties by virtue of this Agreement. No agent, employee, contractor, subcontractor, consultant, volunteer, and/or other representative of the parties shall be deemed an agent, employee, contractor, subcontractor, consultant, volunteer, or other representative of the other parties.

11. NO THIRD PARTY BENEFICIARIES: This Agreement is not intended to nor does it create any third party beneficiary or other rights in any third person or party, including, but not limited to, the general public, or any other organization or entity, or any agent, contractor, subcontractor, consultant, employee, volunteer, or other representative of any party.

12. CHANGES, MODIFICATIONS, AMENDMENTS AND WAIVERS: The Agreement may be changed, modified, amended or waived only by a subsequent written agreement duly executed by the parties hereto. Waiver or breach of any term or condition of this Agreement shall not be considered a waiver of any prior or subsequent breach.

13. ENTIRE AGREEMENT: This Agreement contains all the terms and conditions agreed upon by the parties. All items incorporated herein by reference are attached. No other understandings, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or to bind any of the parties hereto. SKAGIT and SAN JUAN hereby mutually agree to terminate and rescind a previous interlocal agreement and accompanying memorandum of understanding by and between SKAGIT and SAN JUAN both dated April 4, 1994 (Skagit County Contract Numbers: 001995 and 001996), and the parties hereby recognize and agree that this Agreement shall specifically replace and supersede said previous interlocal and accompanying memorandum of understanding (Skagit County Contract Numbers: 001995 and 001996).

14. STATUS OF AGREEMENT: This Agreement is in addition to, and is not intended to replace, substitute, modify, or otherwise amend any other agreements by and between the parties. Any other agreements by and between the parties shall continue in full force and effect, unless specified to the contrary herein (see Section 13, above).

15. USE OF DOCUMENTS AND MATERIALS PRODUCED: The parties shall have the right to use and distribute any and all documents, writings, programs, data, public records or other materials prepared by any party (and/or any party's contractors, consultants, and/or subcontractors), in connection with performance of this Agreement. The parties recognize and agree that any documents and/or materials arising from and/or related to this Agreement may be subject to public disclosure pursuant to applicable law (including, but not limited to, RCW 42.56).

16. DEFAULT: Failure of the parties to comply with the terms of this Agreement shall constitute default. The parties shall have all remedies for the enforcement of this Agreement as provided by law, including, but not limited to, termination of this Agreement (in accordance with Section 7, above).

17. VENUE AND CHOICE OF LAW: In the event that any litigation should arise concerning the construction or interpretation of any of the terms of this Agreement, the venue of such action of litigation shall be in the Superior Court of the State of Washington in and for the County of Skagit. This Agreement shall be governed by the laws of the State of Washington.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of this 9TH day of April 2013.

TOWN OF FRIDAY HARBOR
Carrie Lacher, Mayor

Carrie Lacher 4-4-13
Date

ATTEST: Clerk of the Council

Ingrid Gabriel 4.9.2013
Ingrid Gabriel, Clerk Date

COUNTY COUNCIL
SAN JUAN COUNTY, WASHINGTON

Jamie Stephens
Jamie Stephens, Chair
District 6, Lopez/Shaw

REVIEWED BY
INTERIM COUNTY MANAGER

Robert W. Jean 4/11/13
Robert W. Jean Date

EXCUSED

Rich Peterson
Rich Peterson, Vice Chair
District 2, San Juan North

Bob Jarman
Bob Jarman, Member
District 1, San Juan South

Marc Forlenza
Marc Forlenza, Member
District 3, Friday Harbor

RANDALL K. GAYLORD
APPROVED AS TO FORM ONLY

Rick Hughes
Rick Hughes, Member
District 4, Orcas West/Waldron

By: Randall K. Gaylord
Date 4/4/2013

Patty Miller
Patty Miller, Member
District 5, Orcas East

Approved: April 29, 2013

BOARD OF COUNTY COMMISSIONERS
SKAGIT COUNTY, WASHINGTON



Sharon D. Dillon

Sharon D. Dillon, Chair

Ron Wesen

Ron Wesen, Commissioner

Kenneth A. Dahlstedt

Kenneth A. Dahlstedt, Commissioner

Attest:

Linda Henner

Clerk of the Board

For contracts under \$5,000:
Authorization per Resolution R20030146

County Administrator

Recommended:

Henry Hash
Department Head

Approved as to form:

[Signature] 4/22/13
Civil Deputy Prosecuting Attorney

Approved as to indemnification:

Jessie Null Hays
Risk Manager

Approved as to budget:

Luisa Jagne
Budget & Finance Director

RESOLUTION NO. 1944

A RESOLUTION by the Council of the Town of Friday Harbor authorizing the Mayor to execute an interlocal agreement with Skagit County for receipt of solid waste.

WHEREAS, the Town of Friday Harbor and San Juan County have a need to manage solid waste within their respective jurisdictions pursuant to Chapter 70.95 RCW; and

WHEREAS, Skagit County has developed infrastructure and contractual relationships with sufficient capacity to currently serve the solid waste disposal needs of the Town and San Juan County; and

WHEREAS, all Parties acknowledge the benefits to be gained from a cooperative approach to solid waste issues such as avoiding duplication of services and potential to lower costs to the rate payers; and

WHEREAS, Skagit County is willing to accept and process only solid waste that is destined for landfill disposal at the Skagit County Transfer and Recycling Station from the Town and San Juan County at its municipal customer rate plus a seven dollar per ton out-of-county surcharge; and

WHEREAS, the Town and San Juan County have mutually reviewed total costs for said services and determined that transportation of solid waste to facilities operated by Skagit County is in the best interests of its citizens; and

WHEREAS, pursuant to the authority granted by Chapter 39.34 RCW and other applicable laws, the State of Washington allows and encourages cooperative Solid Waste Programs among regional jurisdictions;

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COPY

NOW, THEREFORE, be it resolved by the Council of the Town of Friday Harbor that the Mayor is hereby authorized to execute an interlocal agreement with Skagit County and San Juan County for receipt of solid waste.

ADOPTED this 4th day of April 2013.

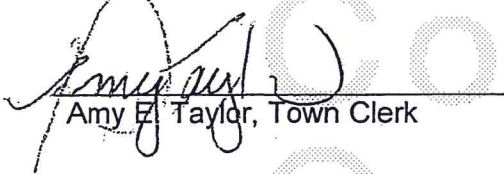
TOWN OF FRIDAY HARBOR


Carrie Lacher, Mayor

SEAL of the

Town of Friday Harbor

ATTEST:


Amy E. Taylor, Town Clerk

APPENDIX J
SEPA DOCUMENTS

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

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

Instructions for applicants:

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

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

Instructions for Lead Agencies:

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

Use of checklist for nonproject proposals:

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

A. Background

1. Name of proposed project, if applicable:

San Juan County Revised Solid Waste and Moderate-Risk Waste Management Plan (Plan)

2. Name of applicant:

Mark Herrenkohl, Solid Waste Program Administrator
San Juan County Public Works

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

San Juan County Public Works

Attn: Mark Herrenkohl, LEG

P.O. Box 729

Friday Harbor, WA 98250

4. Date checklist prepared:

October 4, 2017

5. Agency requesting checklist:

Washington State Department of Ecology

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

This checklist is for a non-project proposal to revise the Plan for San Juan County and the Town of Friday Harbor. The Plan is a significant revision of the 2012 plan and includes information on the changes in operation and long-range planning of the solid waste facilities. It was or will be reviewed by the following:

- Solid Waste Advisory Committee, and
- San Juan County and Town of Friday Harbor Councils.

After approval from County and Town Councils, it will be delivered to the Washington State Department of Ecology for their review and approval.

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

Yes, from the date of Ecology approval, the Plan must be reviewed every five years. If review indicates updates or revision is needed, the Plan must be amended or revised.

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

None.

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.

Not applicable.

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

Adoption by the San Juan County and Town of Friday Harbor Councils and acceptance by Ecology are necessary prior to implementation of this revised Plan.

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.)

San Juan County intends to adopt a revised plan to manage solid and moderate-risk waste. This Plan replaces the previous 2012 County plan, "San Juan County Solid Waste and Hazardous Waste Management Plan" and 2014 Town plan, "Town of Friday Harbor Solid Waste and Moderate-Risk Management Plan." The draft revised Plan updates information on the local collection system including the private and public enterprise operations of the three facilities that handle garbage and recyclable materials. It also provides a 6-year capital improvement plan for all solid waste and moderate-risk operations by the County and Town. The proposed plan and its adoption process amount to a non-project action to adopt a comprehensive solid and hazardous waste management plan for San Juan County.

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.

Not applicable. The revised Plan is not specific to a location, but is a County policy document.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site:

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

Not applicable.

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

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.

Not applicable.

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

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.

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

2. Air

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

Not applicable.

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

No.

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

Not applicable.

3. Water

a. Surface Water:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

No, 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.

No, 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.

Not applicable.

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

No, not applicable.

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

No, 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.

No, 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.

No.

- 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.

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.

No, not applicable.

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

No, not applicable.

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

No, not applicable.

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

The County will continue to monitor groundwater and gas at the closed Orcas Island landfill, and the proposed project will not adversely affect the groundwater on the site.

4. Plants

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

___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

Not applicable, a non-project action is proposed.

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

None.

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

Not applicable.

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

Not applicable.

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

Not applicable.

5. Animals

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

Examples include:

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

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

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

Not applicable, a non-project, non-site-specific action is proposed.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

6. Energy and Natural Resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Not applicable.

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

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

- 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.

No.

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

Not applicable.

- 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.
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.
Not applicable.
- 4) Describe special emergency services that might be required.
Not applicable.
- 5) Proposed measures to reduce or control environmental health hazards, if any:
Not applicable.

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
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.
None.
- 3) Proposed measures to reduce or control noise impacts, if any: [\[help\]](#)
None.

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.
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?
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:
Not applicable.
- c. Describe any structures on the site.
Not applicable.
- d. Will any structures be demolished? If so, what?
No, not applicable.

- e. What is the current zoning classification of the site?
Not applicable.
- f. What is the current comprehensive plan designation of the site?
Not applicable.
- g. If applicable, what is the current shoreline master program designation of the site?
Not applicable.
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.
No, not applicable.
- i. Approximately how many people would reside or work in the completed project?
Not applicable.
- j. Approximately how many people would the completed project displace?
Not applicable.
- k. Proposed measures to avoid or reduce displacement impacts, if any:
Not applicable.
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
Not applicable.
- m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:
Not applicable.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
Not applicable.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
Not applicable.
- c. Proposed measures to reduce or control housing impacts, if any:
Not applicable.

10. Aesthetics

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

Not applicable.

- b. What views in the immediate vicinity would be altered or obstructed?

Not applicable.

- b. Proposed measures to reduce or control aesthetic impacts, if any:

Not applicable.

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Not applicable.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

No, not applicable.

- c. What existing off-site sources of light or glare may affect your proposal?

Not applicable.

- d. Proposed measures to reduce or control light and glare impacts, if any:

Not applicable.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

Not applicable.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

No.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Not applicable.

13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

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.

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.

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.

Not applicable.

14. Transportation

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

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?

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?

Not applicable.

- 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).

Not applicable.

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

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?

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.

Not applicable.

- h. Proposed measures to reduce or control transportation impacts, if any:

Not applicable.

15. Public Services

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

No.

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

Not applicable. County and Town services are well-known to the public and are updated by the operators of the solid waste facilities and certificated hauler. Information is also provided on the County and Town websites and through local newspapers.

16. Utilities

a. Circle utilities currently available at the site:

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system,
other _____

Not applicable.

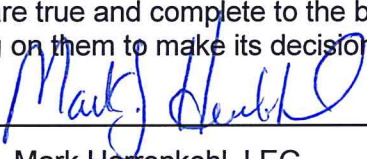
b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Not applicable.

C. Signature

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

Signature: _____



Name of signee: Mark Herrenkohl, LEG

Position and Agency/Organization: Solid Waste Program Administrator, San Juan County
Public Works

Date Submitted: 10/4/17

D. supplemental sheet for nonproject actions

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

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

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

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

The County recently purchased a hazardous waste storage container for the Orcas transfer station. The operator of the facility, Orcas Recycling Services, will provide temporary storage of household hazardous wastes from its customers on a scheduled (e.g., once per month) basis. The personnel operating the facility will have appropriate training including HAZWOPER, WDOT, and RCRA training in the handling, packaging, storage, and transfer of household hazardous waste collected at the facility. The transport of collected waste will be conducted by a County contractor (e.g., Clean Harbors) during one of its regular, annual collection events on Orcas island. If successful, the County plans on purchasing hazardous storage containers for the San Juan and Lopez facilities as part of the 6-year CIP.

Proposed measures to avoid or reduce such increases are:

Concurrent with increasing household hazardous waste collection events in the County, the County is also providing education to the community on reducing the use of household hazardous waste including household cleaning chemicals, pesticides, etc. Information is provided through the County website and direct communication with local retailers.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

APPENDIX K
WUTC QUESTIONNAIRE

Washington Utilities and Transportation Commission

COST ASSESSMENT GUIDELINES

for

LOCAL SOLID WASTE MANAGEMENT PLANNING

Second Edition, Revised

August 2001



WUTC

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

Chandler Plaza
1300 South Evergreen park Drive S/W
P.O. Box 47250
Olympia, WA 98504-7250
(360) 664-1160 ** Fax (360) 586-1150



COST ASSESSMENT GUIDELINES
And QUESTIONNAIRE
FOR
LOCAL COMPREHENSIVE SOLID WASTE MANAGEMENT PLANNING
Second Edition, Revised
August, 2001
Publication No. UTC-228-90-01

Washington Utilities and Transportation Commission
Chandler Plaza
1300 South Evergreen Park Drive SW
P.O. Box 47250
Olympia, WA 98504-7250
(360) 664-1160 ** TTY (800) 416-5289

1. PROCESS OVERVIEW

1.1 Purpose of the Cost Assessment Guidelines

These guidelines are prepared pursuant to RCW 70.95.090, which states:

"Each county and city comprehensive solid waste management plan shall include the following:

(8) **An assessment of the plan's impact on the costs of solid waste collection.** The assessment shall be prepared in conformance with guidelines established by the Utilities and Transportation Commission (WUTC or Commission). The Commission shall cooperate with the Washington state association of counties and the association of Washington cities in establishing such guidelines.

Accordingly, every local government solid waste management (SWM) plan must contain a cost assessment. Long term plans provide environmentally sound control of solid waste. Cost assessments provide financial planning information about proposed SWM systems and comparisons of different alternatives.

The **cost assessment** is a comprehensive, system-wide review of a solid waste plan's costs. Considers the dollar impact on ratepayers of the plan's recommendations, and provides sufficient information to estimate future rate levels.

These guidelines will help local government prepare a cost assessment, even if it does not have a WUTC solid waste collection company within its jurisdiction. For jurisdictions in which regulated haulers operate Section 12 of RCW 70.95.090 requires the WUTC to review the cost assessments during the solid waste management plan approval process. The Commission will advise the county or city submitting the plan and the Department of Ecology (Ecology) on the probable rate impacts of the plan's recommendations.

Prepare the cost assessment such that impacts on solid waste haulers regulated by the WUTC can be easily determined. If a community does not have WUTC regulated collection companies in its solid waste plan, WUTC will not review the plan. Instead Ecology will consider in its review whether or not the plan adequately meets the cost assessment requirements.

Many decision makers can use this cost information:

- **Local elected officials** use the cost assessment as one evaluation tool for selecting preferred solid waste management system alternatives.
- **WUTC Commissioners** and staff use cost assessments to obtain information about probable future rate increases and policy directions set by the local government.

- **Solid waste advisory committee** members use the cost assessment to evaluate solid waste systems and estimate costs of implementing proposed plans.
- **Regulated solid waste collection companies** use the assessment to plan for future of their companies-capital and operating expenditures.
- **Citizens**, who ultimately pay for the SWM system through solid waste collection bills and tipping fees, can use cost assessment to estimate future expense levels. This information, can provide the public with input to local officials on their solid waste program preferences and understand the rate setting process.

1.2 The Washington Utilities and Transportation Commission

The WUTC is composed of three commissioners, appointed by the Governor and confirmed by the Senate to six year terms. The Commissioners are supported by staff of more than 150 people. The staff includes accountants, economists, engineers, consumer program specialist and special investigators.

The Commission regulates privately owned utility that serves the public. Industries regulated include electric power, telephones, natural gas, water, transportation, low level nuclear waste, garbage collection companies, medical waste, etc. The Commission is primarily an economic regulator. However, it also regulates safety for transportation, solid waste, railroads, and natural gas pipelines.

Chapter 81.77 RCW sets forth the WUTC's role in solid waste management. The Commission grants authority to operate, approves rates, prescribes accounting formats, and requires regulated companies to file annual reports. Exemptions from commission regulation for solid waste collection include: collection by the municipality, solid waste or recycling firms providing service under contract with a municipality, commercial recycling and recycling firms that are under contract with a city or county.

The duty to approve rates makes the WUTC directly accountable to the ratepayers. The Commission's goals are to ensure that rates charged by companies are fair, just, reasonable and sufficient. Cost assessments prepared according to these guidelines provide information to the Commission about the costs of SWM systems proposed by local SWM plans that will affect future rate increases.

1.3 Relationship with the Department of Ecology

The Washington State Department of Ecology's, "Guidelines for the Development of Local Solid Waste Management Plans" and the WUTC cost guidelines are mutually supportive. Ecology's guidelines help a local government prepare its solid waste plan. The WUTC's guidelines help assess the cost of various alternatives considered in the plan.

The WUTC review's local SWM plans autonomous of reviews performed by other parties. Staff sends a letter of its comments to the county/city project manager and Ecology. Though we expect that Ecology will incorporate WUTC comments in their preliminary draft review, the review processes are independent of each other.

2. WUTC RATE SETTING PROCESS

2.1 Rate Setting Process

The company must file its proposed rate changes in a revised tariff. The Commission must receive the revised tariff at least forty-five days before the proposed effective date. Commission staff reviews the company's justification provided to support the proposed rates. Staff also reviews the company's books and records. After Staff completes its investigation, staff prepares a memorandum to the Commissioners explaining its findings, conclusions and recommendations.

The Commissioners consider the proposed rates at the Open Meeting (call (360) 759-6489 for a schedule). They receive the staff's memorandum before the meeting for review. Staff makes a verbal presentation, with its recommendation. The company, customers, and other interested persons can address their concerns to the Commissioners.

Very simply, the Commissioners can take only two actions. They can approve the proposed rates to become effective as scheduled or they can issue a complaint and order suspending the proposed rates. Suspended rates do not become effective. Rather, the rates in effect at the time of the meeting remain in effect until the Commission approves a change.

The Commission can suspend rates for no more than ten months. Staff works with the company to negotiate a settlement. Staff rarely fails to reach a settlement. There has not been a litigated rate case in the last two years.

However, if negotiations are unsuccessful, the matter may require a formal hearing before an administrative law judge (ALJ). This is a quasi-judicial proceeding with attorneys and witnesses providing sworn testimony. The ALJ issues a decision, based upon the record. Parties can appeal to the Commissioners for review. The three Commissioners issue their own decision, perhaps affirming the ALJ's decision. The parties can then appeal the Commission's decision through the court system.

2.2 How we set rates

The company must prove its proposed rates are fair, just, reasonable, and sufficient. It must file detailed financial and operational data to prove the proposed rates are fair, just, reasonable, and sufficient. The company is entitled to recover appropriate expenses, and a reasonable profit.

Very simply, the goal of rate setting allocates total company expense to regulated activities (garbage service in an unincorporated county), by different service categories (residential

garbage, residential recycling, yardwaste, commercial garbage, drop box, etc.), by different service levels (for residential customers: micro can, mini can, one can, etc.). The total expenses for each service level divided by the number of customers equals the rate. The allocations may take place in several different orders.

In determining the company's gross revenues, the Commission uses a historical test period. Staff adjusts the income statement for the test year in two ways. "Restating adjustment" correct for errors and departures from regulatory accounting practice. "Pro forma adjustments" give effect to known and measurable changes in revenue and expenses that have taken or will soon take place.

The Commission does not use cost-plus rate making, nor does the Commission guarantee any company will earn a profit. Staff uses a computer model of a methodology approved by the Commission in 1992 to calculate the appropriate profit level.

3. COST ASSESSMENT INFORMATION

For the reasons outlined in Sections one and two, the WUTC reviews the local comprehensive solid waste management plan's cost assessment and advises the local government of the probable effect the alternatives may have on rates charged by firms regulated by the WUTC. This section identifies the information the WUTC needs to analyze the cost and rate impact. WUTC staff looks for evidence that the planning jurisdiction: looks at solid waste management in a comprehensive, system-wide perspective; considers the dollar impact of its decisions on ratepayers; and, provides information sufficient to estimate future rate levels.

3.1 Information Needs

To determine the probable effect a solid waste management plan will have on rates, the WUTC needs the following information:

- current population and solid waste disposal quantities,
- detailed description of the existing comprehensive SWM system, including alternatives,
- proposed changes in the present SWM system,
- estimated dollar requirements for each component of the solid waste management system for years one, three and six,
- all sources of funding to be utilized to operate and pay for the comprehensive system, and

- the role of the WUTC-regulated solid waste collection company(s).

Both population and the number of businesses relate to the number of customers, the weight collected, and time required on routes. The dollar requirements for local government programs, infra structure, and supporting facilities impacts total system costs, which will impact rates. Changes in the solid waste management system will need to be expended or capitalized. This also directly impacts solid waste rates.

Cost variances over time are another important element needed for assessing rate impacts. ESHB 1671, Section (3), subsection (3) requires the local waste management plan to:

- (c) Contain a six-year construction and capital acquisition program for solid waste handling facilities, and
- (d) Contain a plan for financing both capital costs and operating costs of the proposed solid waste management system.

In complying with these requirements, the cost data should address costs and financing options for years one, three, and six.

Please provide complete data in the plan. Proper review of rate impacts require both direct and indirect cost information for each component of the system. Provide, to the greatest extent possible, all assumptions used to develop the cost data.

The questionnaire in Section five outlines the information the WUTC needs to assess changes in rates. This questionnaire is not mandatory we provide it as a tool to ensure that each plan provides WUTC staff necessary information to complete their analysis. The local government may use the format provided or submit comparable cost information in another form.

The local government should provide information on all the solid waste collection companies in its area. This information can be obtained from the WUTC, regulated haulers directly, or from haulers operating within the county without Commission regulation. The Department of Ecology is another source for data as well.

3.2 Planning Numbers vs. Rate Data

The solid waste plan guides decisions about future activities. Any plan which involves forecasting the future is necessarily subject to uncertainty; this is particularly true for solid waste. Population change, economic growth or decline, housing construction, fluctuating interest rates, enforcement actions by state or local authorities, changes in state and federal law, and participation levels in recycling programs, are just some of the variables in the solid waste equation that will vary between planning and implementation of solid waste programs. The

statutory requirement to review the solid waste plan and report potential rate impacts presents a challenge in distilling precise information necessary to compute rates from vague planning figures.

These guidelines are intended to be flexible and they will assist local governments in calculating rates based on assumptions outlined in their plan. To provide a clear rationale for its decisions, a local comprehensive solid waste management plan should contain a statement of the counties' goals, objectives, and policies. The plan should also contain explicit information on local conditions, assumptions, and existing operations to support the plan's cost conclusions. During its review, the WUTC staff will use these assumptions, along with current solid waste collection company statistics and data, to determine any changes the plan may cause in solid waste collection rates.

3.3 Direct vs. Indirect System Costs

The WUTC review looks for two types of costs: direct costs and indirect costs.

An example of a direct cost component is a recycling program provided by a WUTC certificate holder. In this case, the company recovers its costs of operating the program directly from ratepayers through collection rates. The plan should provide sufficient information for the WUTC staff to determine the probable rate impact. Impacts will be affected by the number of participating households, type and volume of materials collected, frequency of collection, the processing facility to which materials will be taken, and other information.

An example of an indirect cost component is a surcharge or city tax. These also impact collection rates.

4. WUTC COST ASSESSMENT REVIEW

4.1 The Internal Process

State law requires local governments to submit preliminary draft solid waste management plans to the Department of Ecology (Ecology) for review. Ecology requires seven copies for distribution to reviewers in the regional offices, headquarters, and the WUTC. The Commission reviews the plan's assessment of the impact solid waste collection costs will have on rates charged by solid waste collection companies regulated under 81.77 RCW. We must complete our review within 45 days of receiving the plan from Ecology.

Because the Commission has relatively little time to review a plan, we developed the following process to ensure a timely review. When we receive a preliminary draft plan, we assign a docket number and schedule a tentative open meeting agenda date. We notify the local government and Ecology of the open meeting date. During the meeting, Commission staff presents the result of their analysis to the Commissioners. Local government representative(s) and all other interested parties also present their questions or comments. The Commissioners then decide on the

acceptability of the analysis and review letter. If accepted, we send the formal review letter to the local government, Ecology and all certificated haulers operating in that area.

During their review, WUTC staff looks for the types of information discussed in these guidelines. Each solid waste hauler in the local government's planning area that has filed for a rate increase in the past three years should have a cost of service study on file with the Commission. The assumptions in the plan can be used with the cost-of-service study to determine possible rate impacts.

If the WUTC cannot make a rate determination because of missing, imprecise, or unclear information, the WUTC staff will contact the local government planner for clarification. If the reviewer still cannot make a rate determination, the Commission will discuss the reasons in the review letter to the local government. In these cases, the Commission may choose to use assumptions based on similar projects and circumstances to estimate possible rate impacts, or it may request the planner provide the missing information be provided in the next preliminary draft.

5. SOLID WASTE COST ASSESSMENT QUESTIONNAIRE

The WUTC staff developed this questionnaire to assist local planners in completing the cost assessment from which the Commission will calculate the potential rate impact(s). This questionnaire provides you with the questions that need to be answered so the Commission staff can perform the assessment of the SWM plans and determine the impact it may have on rates.

The Commission staff submits this document to the local governments to facilitate the transfer of a great deal of information, and to make the assessment process as transparent and understandable as possible. Although the Commission prefers the local government to submit information in the provided format, RCW 70.95.090 does not mandate the use of this questionnaire. You may provide the requested information in any format you choose. However, it is **mandatory** that, you prepare a cost assessment.

RCW 70.95.090(3)(c) requires a six-year construction and capital acquisition program for solid waste handling facilities. To gauge the impact over the six-year timespan, the questionnaire asks for information from three key years: the first, third, and sixth year of the SWM plan.

Please respond to the best of your ability. The more complete your response, the easier it will be to provide a quality rate impact assessment. If you feel that your SWM plan adequately addresses specific questions, simply note to what page the staff may refer, rather than answering the question again.

Please note that each major section of the questionnaire concludes with a subsection entitled "**References and Assumptions**" (e.g., section 1.2). These sections allow an opportunity to note those sources and references that you feel the Commission should know while preparing the cost assessment. In these sections, you should also report any assumptions that you make while compiling questionnaire responses.

After all the information has been gathered, you may include this questionnaire as a section of, or an appendix to, the SWM plan. Alternatively, you may send it directly to the Commission or attach it to one of the seven plans you will send to Ecology. If you choose this option be sure to clearly mark it as the one for the Commission. Please choose whichever option works best for you.

If you have any questions regarding the format or intent of the questionnaire, please don't hesitate to call the Commission's Solid Waste Plan Reviewer at (360) 753-6829.

COST ASSESSMENT QUESTIONNAIRE

Please provide the information requested below:

PLAN PREPARED FOR THE COUNTY OF: San Juan

PLAN PREPARED FOR THE CITY OF: Town of Friday Harbor

PREPARED BY: Mark Herrenkohl, Solid Waste Program Administrator, San Juan County Public Works

CONTACT TELEPHONE: (360) 370-0534 **DATE:** October 18, 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 2016.

YR.3 shall refer to 2018.

YR.6 shall refer to 2021.

Year refers to (circle one)

calendar

 (Jan 01 - Dec 31)
fiscal (Jul 01 - Jun 30)

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/City?

YR.1 16,314 YR.3 16,256 YR.6 16,400

- 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.)

YR.1 16,314 YR.3 16,256 YR.6 16,400

1.2 References and Assumptions

Population data are estimated by the Office of Financial Management based on the “medium series” projections, consistent with the projections used in the San Juan County Comprehensive Plan.

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 3,587 YR.3 3,920 YR.6 4,280

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 10,808 YR.3 11,204 YR.6 11,818

2.3 References and Assumptions

Assume for tonnage of recyclables and disposed:

- *3% annual inflation factor for certificated hauler and county drop-off facilities over the next 6 years.*
- *1% annual inflation factor for Town of Friday Harbor.*

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

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.)

<u>IMPLEMENTED</u>	<u>PROPOSED</u>
<i>See SW Plan Sections 2.2, 3.2, 3.3, 3.4, 3.5, 3.7, 3.8, 7.2</i>	<i>See SW Plan Section 3.1</i>

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

Costs for waste reduction, education, and outreach is included with administration in questionnaire Section 3.6.

3.1.3 Please describe the funding mechanism(s) that will pay the cost of the programs in 3.1.2.

Costs for waste reduction, education, and outreach is included with administration in questionnaire Section 3.6.

3.2 Recycling Programs

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.)

<u>IMPLEMENTED (2016)</u>		
PROGRAM	COST	FUNDING
<i>SW Plan Sections 3.4, 3.5, 3.6, 7.2.1</i>		<i>Recycling and garbage fees</i>
<i>Recycling tipping fees vary between curbside collection and drop-off at solid waste facilities. Refer to Appendix E of SW Plan for 2017 fee schedule for County solid waste facilities.</i>		

PROPOSED (2017-2021)
SW Plan sections 3.1.
San Juan County costs for recycling education are included with administration in questionnaire section 3.6.

3.3 Solid Waste Collection Programs

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 San Juan Sanitation
G-permit #144

	<u>YR. 3</u>	<u>YR. 6</u>
RESIDENTIAL		
- # of Customers	896	922
- Tonnage Collected	547	561
COMMERCIAL		
- # of Customers	622	654
- Tonnage Collected	3,782	3,971

3.3.2 Other (non-regulated) Solid Waste Collection Programs Fill in the table below for other solid waste collection entities in your jurisdiction. (Make additional copies of this section as necessary to record all such entities in your jurisdiction.)

Hauler Name Town of Friday Harbor (from Table 6 in SW Plan)

	<u>YR. 1</u>	<u>YR. 3</u>	<u>YR. 6</u>
# of Customers	984	994	1,004
Tonnage Collected	1,831	1,868	1,925

Assumes an annual inflation factor of 1%.

3.4 Energy Recovery & Incineration (ER&I) Programs
 (If you have more than one facility of this type, please copy this section to report them.)

NA

3.5 Land Disposal Program
 (If you have more than one facility of this type, please copy this section to report them.)

NA

3.6 Administration Program

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

San Juan County

Budgeted Cost

YR.1 \$493,232 YR.3 \$457,500 YR.6 \$562,500

Funding Source

Excise tax, facility leases, coordinated prevention and community litter grants.

Town of Friday Harbor

Budgeted Cost

YR.1 \$838,202 YR.3 \$1,060,850 YR.6 \$1,193,996

Funding Source

Collection fees, sale of grease, additional bill copy fees, Sutton Road facility lease.

3.6.2 Which cost components are included in these estimates?

For the County, overall costs for solid waste program administration, education, and outreach programs, landfill closure, hazardous waste, and reserve account. For the Town, overall costs for solid waste program administration, tipping fees, waste reduction programs, landfill closure, hazardous waste, and reserve account.

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

For the County, Solid Waste Excise Tax on Municipal Solid Waste collected in San Juan County, Ecology grants, and facility leases. For the town, collection fees, sale of grease, lease fees.

3.7 Other Programs

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.

*Hazardous Waste program, Section 9.
Landfill Monitoring Appendix F.*

3.7.2 Owner/Operator: San Juan County Solid Waste Division
Town of Friday Harbor Utilities Division

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

No.

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

County	Hazardous Waste	YR.1 <u>\$60,000</u>	YR.3 <u>\$60,000</u>	YR. <u>\$60,000</u>
	Landfill Monitoring	YR.1 <u>\$110,000</u>	YR.3 <u>\$55,000</u>	YR.6 <u>\$85,000</u>

Town	Hazardous Waste & Landfill Monitoring			
	YR.1 <u>\$115,515</u>	YR.3 <u>\$122,550</u>	YR.6 <u>\$137,931</u>	

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

County – (Hazardous Waste) – Excise tax, Coordinated Prevention Grant

County – (Landfill Monitoring) – Excise tax, reserve funds

Town – (Hazardous Waste & Landfill Monitoring) – Collection fees, taxes, and leases.

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 2016	Transfer Cost* 2016	Transfer Station Location	Final Disposal Location	Total Tons Disposed (2016)	Total Revenue Generated (Tip Fee x Tons) (2016)
San Juan Transfer Station	Transfer Station	\$347.21 \$165.00 Cert-Haul		212 Sutton Road San Juan Island	Cowlitz Landfill, Washington	5,526***	
Orcas Transfer Station	Transfer Station	\$300.00 \$195.00 Cert-Haul		3398 Orcas Road Orcas Island	Roosevelt Landfill, Washington	4,662****	
Lopez Solid Waste Disposal District	Drop Box	By volume \$8/32-gal can**		2419 Fisherman Bay Road Lopez Island	Roosevelt Landfill, Washington	620	
					TOTAL	10,808	

* Transfer and Disposal Costs in 2016.

**LSWDD also collects property taxes from Lopez Island residents.

***Includes Town of Friday Harbor and San Juan Sanitation solid waste disposal.

****Includes San Juan Sanitation solid waste disposal.

Table 4.1.2 Tip Fee Components

Tip Fee by Facility	Surcharge	City Tax	County Tax	Transportation Cost	Operational Cost	Administration Cost	Closure Costs
San Juan Transfer Station - \$347.21							
San Juan Transfer Station - \$165.00 Cert Haul							
Orcas Transfer Station - \$300.00							
Orcas Transfer Station - \$195 Cert Haul							

Table 4.1.3 Funding Mechanism - 2016

Name of Program Funding Mechanism will defray costs	Bond Name	Total Bond Debt	Bond Rate	Bond Due Date	Grant Name	Grant Amount	Excise Tax	Taxes	Other	Surcharge
Household Hazardous Waste Collection and Disposal					Coordinated Prevention Grant	\$42,494	\$25,640			
Roadside and Beach Litter Cleanup					Community Litter Cleanup Grant	\$4,141	\$0			
Closure and Debt Costs							\$136,774			

Table 4.1.4 Tip Fee Forecast (Year One - 2016)*

Tip Fee per Ton by Facility	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
San Juan Transfer Station	\$347.21 \$165.00 Cert- Haul	\$347.21 \$165.00 Cert- Haul	\$347.21 \$165.00 Cert-Haul	\$347.21 \$165.00 Cert-Haul	\$347.21 \$165.00 Cert-Haul	\$347.21 \$165.00 Cert-Haul
Orcas Transfer Station	\$300.00 \$195.00 Cert- Haul	\$300.00 \$195.00 Cert- Haul	\$300.00 \$195.00 Cert- Haul	\$300.00 \$195.00 Cert- Haul	\$300.00 \$195.00 Cert-Haul	\$300.00 \$195.00 Cert-Haul
Lopez Solid Waste Disposal District	By volume \$8/32-gal can**	By volume \$8/32-gal can**	By volume \$8/32-gal can**	By volume \$8/32-gal can**	By volume \$8/32-gal can**	By volume \$8/32-gal can**
* 2016 dollars, assume increases over 6 years is due to inflation and increase in transportation costs (e.g., ferry rates).						

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 2016						
Component	Tip Fee %	Grant %	Bond %	Excise Tax %	Other %	Total
Waste Reduction(1)						100%
Recycling	100%					100%
Collection	100%					100%
Transfer	100%					100%
Land Disposal	100%					100%
Administration				100%		100%
Landfill Monitoring & Closure				100%		100%
MRW Program		75%		25%		100%
Litter Program		100%				100%

(1) Included with administration.

Table 4.2.2 Funding Mechanism by Percentage						
Year Three 2018						
Component	Tip Fee %	Grant %	Bond %	Collection Tax Rates %	Other %	Total
Waste Reduction(1)						100%
Recycling	100%					100%
Collection	100%					100%
Transfer	100%					100%
Land Disposal	100%					100%
Administration				100%		100%
Landfill Monitoring & Closure				100%		100%
MRW Program		75%		25%		100%
Litter Program		100%				100%

(1) Included with administration.

**Table 4.2.3 Funding Mechanism by Percentage
Year Six 2021**

Component	Tip Fee %	Grant %	Bond %	Collection Tax Rates %	Other %	Total
Waste Reduction(1)						100%
Recycling	100%					100%
Collection	100%					100%
Transfer	100%					100%
Land Disposal	100%					100%
Administration				100%		100%
Landfill Monitoring & Closure				100%		100%
MRW Program		75%		25%		100%
Litter Program		100%				100%
Waste Reduction(1)						100%

(1) Included with administration.

4.3 References and Assumptions

Please provide any support for the information you have provided. An annual budget or similar document would be helpful.

See tables in Solid Waste Plan Financial section tables 15-18 for historical and six and twenty year projected financial information.

4.4 Surplus Funds

Please provide information about any surplus or saved funds that may support your operations.