

SAN JUAN COUNTY

Solid and Hazardous Waste Management Plan

First Review Draft

San Juan County Public Works Department
Solid Waste Program

10/19/2011

A NOTE TO READERS

This first release draft of the Solid Waste Plan has two primary functions. One is to provide information to the public regarding the nature of the solid waste systems that residents will use with and without the proposed solid waste user charge. The second function is to establish the legal basis for implementing any new or revised solid waste system.

The County Council has proposed an initiative intended to provide a stable revenue source that can be used to return previous services, provide funding for facility improvements, and reduce tipping fees. The proposal is on the November 8, 2011, ballot.

Whatever the outcome of the election may be, the County must have a locally adopted and state approved plan in place to legally implement the system. The content of this draft of the SW Plan has been limited to information considered helpful to the decision-making process for the upcoming election. A second review draft will be released after Nov. 8, 2011, that will include chapters on waste reduction, reuse, and recycling, hazardous waste management, education, and administration. It will focus on the steps necessary for implementation of the chosen operations model.

This draft contains three chapters about the system operations: collection, transfer, and disposal/recycling. These are the portion of the system that residents and businesses commonly experience first-hand. Chapters 5 and 6 describe how collection and transfer facilities will differ in Plan A and Plan B, the operations systems currently under discussion. These are the chapters that are likely to be of greatest interest to the reader and offer the information most significant to the average system user.

The first three chapters begin with a detailed summary of the Plan A and Plan B operations models. They are included to provide the background and basis for the plan.

The draft SW Plan does not draw conclusions. It describes the solid waste system that we have today and what we can expect under two different scenarios for the future.

The First Draft of the SW Plan is also available on line at <http://www.co.san-juan.wa.us/>

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Chapter 1 SUMMARY AND RECOMMENDATIONS	1
1.1 ISSUES IN COUNTY SOLID WASTE MANAGEMENT	1
1.2 GOALS.....	7
1.3 RECOMMENDATIONS	8
1.4 PROJECTED COSTS OF IMPLEMENTATION	8
Chapter 2 PLANNING PROCESS	9
2.1 PURPOSE	9
2.2 DOCUMENT ORGANIZATION.....	9
2.3 PLANNING AREA.....	10
2.4 PLAN DEVELOPMENT AND PARTICIPATION.....	10
2.5 WASTE REDUCTION AND THE WASTE 2 RESOURCES PLAN	11
2.6 REGULATORY FRAMEWORK.....	12
2.7 PLANNING AUTHORITY	13
2.8 REQUIRED SOLID WASTE MANAGEMENT PLAN ELEMENTS.....	13
2.9 HAZARDOUS WASTE PLAN INCORPORATED.....	15
2.10 STATUS OF PREVIOUS PLANS	16
2.11 MAINTAINING THE PLAN OVER TIME.....	16
2.12 SUMMARY OF RECENT CHANGES IN SOLID WASTE REGULATION	18
Chapter 3 BACKGROUND AND WASTE STREAM	21
3.1 SETTING AND CURRENT CONDITIONS	21
3.2 OVERVIEW OF COUNTY WASTE MANAGEMENT SYSTEM	22
3.3 WASTE STREAM.....	23
3.4 POPULATION.....	25
3.5 SOLID WASTE GENERATION FORECAST	25
Chapter 4 WASTE REDUCTION, REUSE, AND RECYCLING	27
Placeholder for review draft.....	27
Chapter 5. COLLECTION	29
5.1 INTRODUCTION.....	29
5.1.1 PROPOSED SYSTEMS	29
5.2 GOALS.....	32
5.3 INVENTORY OF SOLID WASTE COLLECTION SERVICES.....	35
5.4 SOLID WASTE COLLECTION TRENDS.....	36
5.5 PROJECTED COLLECTION NEEDS FOR THE NEXT SIX YEARS	36
Chapter 6 TRANSFER.....	39

6.1 INTRODUCTION.....	39
6.1.1 BACKGROUND.....	39
6.2 GOALS.....	40
6.3 CURRENT TRANSFER SYSTEM.....	44
6.4 CAPACITY AND ADEQUACY OF FACILITIES	50
Chapter 7 TRANSPORT and DISPOSAL/MATERIALS RECOVERY	53
7.1 INTRODUCTION.....	53
7.2 DISPOSAL AND RECOVERY GOALS	53
7.3 CURRENT SYSTEM	55
Chapter 8 EDUCATION AND OUTREACH	57
Placeholder for review draft.....	57
Chapter 9 REGULATION, ADMINISTRATION, & ENFORCEMENT	59
Placeholder for review draft.....	59
Chapter 10 HAZARDOUS WASTE PLAN	61
Placeholder for review draft.....	61
GLOSSARY OF TERMS	63
ACRONYMS AND ABBREVIATIONS	73

IMPLEMENTATION MATRIX

APPENDIX

Chapter 1 SUMMARY AND RECOMMENDATIONS

1.1 ISSUES IN COUNTY SOLID WASTE MANAGEMENT

While numerous issues surround the County Solid Waste Management system, funding and two operational models have become the focus of community interest. Each potential solution, and the necessary actions for their implementation, are developed in Chapters 5 through 7. These three chapters collectively describe operations to remove garbage and recyclable materials from the county and deliver them to the appropriate facilities. These chapters are supplemented by appendices, including the implementation matrix.

1.1.1 MAJOR ISSUES

The County is facing major decisions and changes in the waste management system for all county residents and businesses. For many years, the County has provided local services with three facilities, opportunities for self-haul, and free recycling services. However, the costs of that system have increased substantially while revenues have fallen. It is clear that the current system is not sustainable with funding based largely on tipping fees for services at the County facilities.

In August of 2010, county residents responded to a solid waste user survey¹. The results showed that people want more resources dedicated to all of the services currently offered at the County facilities. In addition, they want new services, such as composting and the reusing and recycling of construction and demolition waste. However, respondents did not support any means of increasing revenue to pay for improved or new services. (Appendix R, 2010 Public Opinion Survey)

In early 2011, a County Council Solid Waste Subcommittee began a re-evaluation of funding for the County's solid waste system. Their work resulted in a proposition to fund a three facility system, known as Plan A. If that proposition fails, an alternate model, known as Plan B would rely on private collection services.

PLAN A

Plan A is based on providing adequate and sustainable funding to maintain three County facilities and current levels of service, along with necessary capital improvements and some potential for expanding services. No change to the current route collection services is anticipated. Periodic hazardous waste collection events would still be conducted. Some collection services or events would be funded for non-ferry served islands. Converting the San Juan Island facility to a transfer station or building a replacement remains a longer term goal, once funding is available.

¹ Marketing Resources August 30, 2010. (Analysis and report from a random sample of the county's households, which generated a 26% response.)

The proposed funding source is the subject of a ballot measure to approve an ordinance that would establish an annual solid waste user charge on real property. The user charge would be imposed on those property owners who have property which contributes to the burden on the County solid waste system. The amount of each user charges is related to the type of use and development on each property. The solid waste user charge would expire 15 years after implementation, which is assumed to be the amount of time for the user charge to retire debt. The fee on garbage and commingled recycling would be reduced in response to the increased revenue from the new user charge. The decision on the user charge will be made by voters on the November 8, 2011.

Plan B

Plan B is the alternative system to be implemented if the ballot initiative to provide funding for the three county facilities and services fails. It relies on route collection of garbage and recyclables provided by a franchised hauler, and the County would no longer operate the solid waste facilities.

The franchised hauler and the County have worked together to ensure that route collection will be available to all County residents. The actual point where each customer would have their waste picked up by the franchised hauler depends on the island, customer requests, and the condition of the road serving the location.

Collection at the end of a driveway will be available on the four ferry-served islands when the driveway meets a County road. Customers with a driveway that meets a private road may, or may not, receive collection at the end of their driveway. Collection at alternate locations is available for customers on both ferry and non-ferry served islands. The franchised hauler, their customers, and San Juan County staff will work together in choosing the location for leaving customer cans or a drop-box for customers to empty their cans for collection.

Additionally, the County solid waste facilities will be available for lease by private parties interested in providing waste management services. Private providers may also offer solid waste services at other locations within the county. Most of the other customary services for recyclables not included in commingled recycling and hazardous wastes would rely on private providers.

QUESTIONS ABOUT PLAN A and PLAN B

PLAN A QUESTIONS

Will Reuse operations at The Exchange and the Take It or Leave It continue?

Under Plan A, both Reuse facilities will continue to operate at their current location.

Will route collection of both garbage and recyclables be available?

Route collection of residential and commercial garbage will still be available. Route collection of recycling will still be available to commercial customers. Commingled recycling collection service may be offered to residences by the franchise hauler at their discretion.

What do we do when the County's contract with Waste Management to transport waste expires?

The ten-year contract with Waste Management, Inc. for transport and disposal and recovery of recyclables will expire December 31, 2012.

To take advantage of low tipping fees and transportation costs, the County is considering options for transport of garbage and commingled recyclables to two separate transfer stations located in Skagit County. Transporting waste from San Juan County to the Skagit County locations could be added to the current County operations or contracted out to the franchise hauler. Based upon current information, the costs of transport and disposal are lower than an amended or new contract with Waste Management or other companies offering the same service.

Under Plan A will there still be a charge for services at County facilities?

The additional funding from the annual solid waste user charge will result in reduced fees for both commingled recycling and garbage services. The reduced fees would be similar across all islands and between self-haulers and the franchise hauler. A new gate fee will be added and the current minimum fee on garbage transactions would be dropped. Recycling drop-off at no charge has strong support from a significant number of people, but a fee for recycling will be needed until financial stability is achieved.

Will the County directly operate the facilities or will that be contracted out?

Plan A does not necessarily mean that the County would continue to operate and staff the three facilities. While retaining management control, the County may consider proposals for private operation of the facilities that would maintain the customary services. Criteria for choosing a private operation and selecting among candidate operators need to be developed.

PLAN B QUESTIONS

Will Reuse operations at The Exchange and the Take It or Leave It continue?

Under Plan B, Reuse facilities will continue to operate at their current locations. The Lopez Take It or Leave It, which currently has support from County staff, would need to be established as a private operation under not-for-profit management.

Will route collection of both garbage and recyclables be available?

The Council will pass a Level of Service ordinance to require route collection of commingled recyclables by the franchise hauler in addition to the garbage. Recycling will be picked up on the same day of the week as garbage, but less frequently – probably on alternate weeks.

How will transportation and transfer costs be handled?

The franchised hauler, and any private business operating a drop-off facility, would include the costs of transfer and transportation in the rates or other charges to their customers.

Will County facilities be open under private operation?

Plan B will include leasing County sites and facilities to qualified private businesses to offer drop-off services. The private operation may not be required to provide garbage or commingled recycling services. The private facility operator will determine what services they will offer, and how and when they will provide them. If no private service provider operates the drop-boxes, then customers can choose between route collection or self-hauling to the mainland.

How will other services, besides garbage and recyclables, be provided under Plan B?

The franchised hauler or any private operator of County facilities could handle the other services to collect special wastes. The County is evaluating whether or not to provide drop-off services for used motor oil, and antifreeze at the County Public Works road services shops. Heating equipment at the shops can use the motor oil as fuel.

Noxious weeds and beach or roadside litter collection service would still be available. The County plans to reimburse the franchised hauler or drop-off service provider for accepting them at no charge.

Drop-off service for appliances and steel would no longer be offered locally, except where private businesses may accept them. There is no Plan B to collect and safely handle medical wastes at this time.

Will hazardous waste collection continue to be offered under Plan B?

The County intends to continue household hazardous waste (HHW) and small quantity generator (SQG) collection events. However, these collection events are funded by grants from Ecology with the condition that 25 percent of the total cost must be supplied by the County. Questions remain as to how the County would supply funds for matching the amounts offered by Ecology.

Table 1.1 Comparison of services provided in Plan A and Plan B		
Service	Method of delivery	
	Plan A.- 3 Facilities	Plan B-Route Collection
Route collection - Garbage	Continue existing service.	Continues existing service.
Route collection - Commingled recyclables	May be offered in the future, at franchise hauler's option.	Yes. Will be available through a level of services ordinance (LOS)
Drop-off - Garbage	Yes	Possibly available via private enterprise
Drop-off - Commingled	Yes	Possibly available via private enterprise

recyclables		
Reuse facilities	Yes	Yes
Household hazardous waste	Yes - Collection events	Yes. Collection events, if funded.
No charge programs: noxious weeds/beach watchers/litter disposal	Yes	Yes. If County pays for handling and disposal costs and funding is available.
Appliances for recycling	Yes	Private collectors only
Motor oil for recycling	Yes	May be accepted at County road shops & reused as heating fuel
Antifreeze for recycling	Yes	May be accepted at County road shops
Steel for recycling	Yes, at Orcas & Lopez	Private collectors only
Biomedical waste disposal	Yes	No

1.1.2 GENERAL ISSUES

Lopez local management

The Port of Lopez has expressed interest in operating the Lopez solid waste facility. County administrative staff and Port staff have been discussing how this may be accomplished. It is likely the County would maintain ownership of the site and facilities, and the Port would lease the facility and supply its own equipment. Both groups are supportive of the effort, but a full agreement has not been reached.

If an agreement is reached, it would allow the Port to modify operations within the limits of the County Comprehensive Solid and Hazardous Waste Management Plan, which applies to the County as a whole. Rates charged for services and hours of operation would be set by the Port and may differ from the rates or hours at other solid waste facilities in the County. The services offered at Lopez may also differ from the rest of the county. However, Lopez must still provide opportunities for collection and transfer of recyclable materials listed in the S&H Plan.

This arrangement will complicate the application of the solid waste user charge (SWUC). Not all waste generated on Lopez moves through the Lopez facility. Forty percent of the Lopez waste is collected by San Juan Sanitation and is delivered to the Orcas transfer station. Finding a mechanism that will allocate the SWUC to the County or the Port, based on which organization is actually handling the waste, is a difficult task that is not complete.

Loss of revenues from Town

In the second half of 2010, the Town of Friday Harbor began hauling their garbage to the transfer station in Skagit County, where tipping fees are substantially lower than at the Orcas Transfer Station. Loss of the Town's approximately 1,700 tons of collected garbage has reduced County revenues.

Self Haul Volume

In 2010, 53,000 self-haul customer trips were recorded bringing garbage to the County facilities. They delivered 3,580 of the total 8, 566 tons of garbage using private vehicles.

That same year, only 1,050 packer truck trips (operated by the franchised hauler) brought 4,069 tons of garbage to County facilities.

In other words, 98 percent of the traffic delivers half of the garbage collected in the county and 2% of the traffic delivers the other half of the garbage. A packer truck delivers 50 times more material than a private vehicle, and it does not require 50 times the effort and cost to serve a packer truck.

It is interesting to note that many people have stated that they deliver their own garbage because they have to haul their recycling to the County sites, anyway. There is no regular route collection of recycling in rural San Juan County.

Commingled recycling route collection and efficiency

The lack of commingled recycling collection is a common reason given by self-haulers for not using the route collection garbage service. If commingled recycling collection is added to the garbage collection services provided by the franchised hauler, there may be migration from self-haul to route collection. However, a significant number of residents would be required to make the recyclables route collection feasible. If individual customers (and vehicles) were reduced, the facility operation costs could also be reduced.

Potential cost savings and service benefits include:

- Reduction in facility employee hours,
- Employees available to improve existing service or add additional services
- Wear and damage to facilities and equipment and the associated costs of maintenance and repair would be reduced.

Fees for Recycling

Historically, County recycling services (for an average of 3,000 tons a year) have been provided at no charge to the public. However, the actual costs for this service have been paid for by raising the charges for garbage service. Since late 2008, revenue from the charge for garbage service has fallen due to reduced amounts of garbage going through County facilities. In October 2010, the County decided to charge a fee on commingled recyclables. In January 2011, the County implemented volume-based charges for commingled recyclables. These were intended to be a temporary source of funding while the County Council developed an adequate and sustainable funding source. It is the intent to re-establish a “no charge” approach to commingled recycling.

1.2 GOALS

1.2.1 San Juan County Overall Goals

The overall goals of this waste management plan are:

1. Ensure reliable service for removal of solid waste.
2. Develop opportunities for public-private partnerships for waste reduction and recycling programs when they are in accord with the other goals of the plan.
3. Identify opportunities and be prepared to develop processes for local control of recycling operations.
4. Establish affordable objectives, strategies, and actions to achieve the goals of this plan.
5. Evaluate new technological developments that may advance the goals of this plan.
6. Provide public education and outreach for recommended waste management practices.
7. Pursue the key initiatives of the State's Beyond Waste Plan to:
 - increase diversion of organic materials
 - increase use of green building construction and deconstruction, products and practices
 - improve management of hazardous wastes
 - measure progress toward goals.

Under Plan A, the County's overall waste management goals would include:

8. Emphasize waste reduction:
 - Increase reuse on all islands.
 - Increase composting, by both individual households and communities.
 - Promote reuse of construction and demolition debris.
 - Waste prevention education.
 - Deliver unwanted electronics to local E-Cycle Washington registered collectors.
 - Promote environmentally preferable purchasing by individuals, businesses, and government facilities.
9. Provide more opportunities for special wastes collection.
10. Achieve the State goal of a 50 percent recycling rate and recycle more types of items..

1.2.2 Washington State goals for waste management

The State's Solid and Hazardous Waste Management Plan is the *Beyond Waste Plan*, first published in 2004 and updated in 2009. It presents a progressive vision of a future where preventing waste and the use of toxic substances is the highest priority of waste management strategies, followed by reuse, recycling, and responsible disposal.

The major initiatives of the *Beyond Waste Plan* are: increased diversion of organic materials; increased use of green building practices; improved management of small-volume hazardous wastes; improved management of industrial wastes, and measuring progress toward these goals.

The State Department of Ecology encourages all local planning jurisdictions to pursue programs that promote the Beyond Waste initiatives and vision. Local governments are encouraged to develop realistic goals to move in the direction of Beyond Waste and to consider what local government offices, buildings and facilities can do to lead by example.

1.3 RECOMMENDATIONS

(summary of major recommendations goes here)

See Appendix A. Implementation Matrix, for detailed recommendations.

1.4 PROJECTED COSTS OF IMPLEMENTATION

Over the next six years, implementation of the recommended services, programs, and facility improvements is estimated to cost a total of

A summary of goals and recommended strategies for the next six years, along with a budget and implementation schedule, is presented in Appendix A. Means to fund the capital costs and operational expenditures of the proposed solid and hazardous waste management system are discussed in Chapter 9, Administration.

Chapter 2 PLANNING PROCESS

2.1 PURPOSE

The purpose of adopting a Solid and Hazardous Waste Management Plan is to develop and maintain a sustainable system that protects public health and the health of the environment. This plan compares and recommends management strategies and facility improvements for handling solid and hazardous waste for the six-year period following plan adoption. A current plan is necessary for state and local approvals of any changes to the system. State agencies require that changes in the system are in compliance and consistent with local solid and hazardous waste management plans².

2.2 DOCUMENT ORGANIZATION

Following the background material found in Chapters 1-3, Chapter 4 (available in the second draft) addresses the programs and current issues in waste reduction, reuse, and recycling. Chapters 5-7 discuss the core operations of the system: Collection, Transfer, and Disposal, and the options for continuing or changing them. A plan to continue the traditional system of county operation of three solid waste facilities will require capital investment and a reliable source of adequate funding for those investments. The alternative plan would stop County operation of solid waste facilities, rely on route collection for commingled recyclables in addition to garbage, and open the County solid waste facilities to lease by private entities.

Chapter 8 (in the second review draft) discusses the current education and outreach programs and proposes new or more vigorous programs, especially in promoting waste reduction. Chapter 9, Administration, Funding, and Enforcement (also in the second draft) addresses the County's role in conducting the planned system, ensuring operations and capital improvement funding, and preventing agencies, businesses, or residents from actions that would adversely affect public or environmental health.

The updated Hazardous Waste Management Plan is found in Chapter 10 (to be included in the second review draft). The Hazardous Waste Management Plan is incorporated into the County's comprehensive solid and hazardous waste management plan for the first time.

The operations sections of the plan, Chapters 5 through 7 present inventories and assessments of the current systems, facilities, and programs provided by the County as of the year 2010. These evaluations are used to develop goals, policy objectives, and strategies and to identify responsibilities, costs, and funding sources for the future. With two different proposals under consideration to achieve the solid waste management goals, the plan objectives, strategies, actions and tasks are divided into Plan A - Three County Facilities, and Plan B - Route Collection.

The Implementation Matrix is found in Appendix A and details what could be accomplished within a six-year timeline. An additional matrix, with a 20-year planning horizon

² RCW 81.77.030, RCW 70.95.130, RCW 70.105.220

makes recommendations for the long-term sustainability of managed waste systems in the county. Resource materials are included in further appendices.

2.3 PLANNING AREA

The planning area includes all of San Juan County. The 2010 census documented 15,769 residents in the county. Local post office records show 9,960 addresses listed for San Juan County.

The only incorporated town in the county, Friday Harbor, is preparing an independent solid waste management plan. The Town's solid waste management plan must be incorporated in the County S&H Plan in accordance with RCW 70.95.080. See Appendix N for the Town's plan.

2.4 PLAN DEVELOPMENT AND PARTICIPATION

Major changes are considered as part of the Plan's recommended policies and actions. Issues, such as maintenance of existing systems, modifications to the system, cost and levels of services, revenue opportunities, local management priorities, and the rapidly approaching date of the end of the long-haul transport and disposal contract were discussed in focus groups and in public meetings. Plan development was based upon public opinion research, technical research, and analysis.

Copies of the Final Draft Plan will be posted on the County website and available for reading at County public libraries, in addition to the required environmental impact and public hearing processes.

(ADD DATES AS THE FOLLOWING BECOME ACCOMPLISHED)

- Scoping June - October 2010 - focus groups
- Public opinion survey - July - September 2010
- Planning forum - February 2011
- Publication of an EIS or DNS in accordance with State Environmental Protection Act protocols. - DATE
- Public hearing for adoption by the County Council. - DATE
- Review by SWAC to ensure private recyclable hauling interests have been considered. - DATE
- Transmittal to Ecology - DATE

From the outset of the project, it has been important to consider the concerns and recommendations of multiple stakeholders who use the County solid and hazardous waste handling systems. An opinion survey with questions about personal solid waste practices was mailed to a random sample of 4,000 of the more than 9,000 addresses listed in the county. More than 1,200 responses were returned and the results were presented to the County Council on August 30, 2010, as well as published on line and in local newspapers. That analysis of survey responses showed at least three priorities stated by island residents: make the system inexpensive; prevent or divert as much waste as possible from entering the waste stream; and, ensure maximum recycling of collected materials delivered to County facilities.

From the survey comments, it appears that many islanders are aware of environmental costs and long-term effects of current choices. Most islanders are interested in an improved system that will be more cost-effective. Focus groups clearly supported paying for commingled recycling services, but this is not borne out in the survey. The full survey report is found in Appendix R.

The County Council chose to pursue the three-station model and the Council Solid Waste subcommittee developed funding for the three facilities under Plan A. Committee members are identified in Table 1.

The County Solid Waste Advisory Committee (SWAC) was asked to research the feasibility of the Zero Facility Model.

*insert SWAC member names and their areas of residence/expertise plus any helpers
insert council sub-committee members*

Several people helped with early scoping and resource material: Pete Moe, George Post, Stephanie Buffum-Field, Rhea Miller, Beth Holstein, Phil Heikkinen, Sarah Rabel, and Nancy Greene. Members of the Washington Department of Ecology: Diana Wadley, Peter Christiansen, and Taisa Welhasch provided advice and ongoing review of the draft plan. Citizens of San Juan County, interested in maintaining environmental quality and in innovative and improved systems, participated in the development of locally useful goals and strategies.

2.5 WASTE REDUCTION AND THE WASTE 2 RESOURCES PLAN

2.5.1 Washington's Beyond Waste Plan

In 2004, the Washington State Department of Ecology released a statewide waste and toxics reduction plan (Ecology 2004). Commonly referred to as "Beyond Waste", it adopts a vision in which " *We can transition to a society where waste is viewed as inefficient, and where most wastes and toxic substances have been eliminated. This will contribute to economic, social and environmental vitality.*"¹

The State Plan projects this transition will take 20 to 30 years, or more. It will contribute to long-term economic, social, and environmental vitality. This transformation will slowly do away with the hidden cost of hazardous materials that are paid by society in the form of increased health costs, environmental clean-up costs, and degraded ecosystems.

The Beyond Waste plan also intends to transform the environmental regulations needed in Washington, as toxic ingredients or wastes are eliminated at the source by either safely returning materials to the environment or efficiently recycling them into industrial processes. If wastes and toxics are not generated in the first place, then nothing is left to regulate. The result will be less cost for industry, less government regulation and cost, new global markets, a very competitive market economy, and a cleaner environment.

In 2009, the State Department of Ecology published an update to the Beyond Waste Plan. It focuses on the same five initiatives:

1. Moving toward *Beyond Waste* with industries.
2. Reducing small volume hazardous materials and wastes.
3. Increasing recycling for organic materials.
4. Making green building practices mainstream.
5. Measuring progress toward *Beyond Waste*.

2.5.2 Product Stewardship

Product stewardship is an environmental management strategy that directs all those involved in the design, production, sale and use of a product to take responsibility for minimizing the product's impact to human health and the natural environment throughout the life of the product. A core principle of product stewardship is the producer's responsibility for their product, including appropriate management of that product and its packaging at the end of the product's useful life. The term Extended Producer Responsibility (EPR) is often used interchangeably with Product Stewardship.

In San Juan County, the following products persistently contribute to the waste stream that the county must manage. San Juan County supports product stewardship efforts targeting these products in particular to reduce their presence in the waste stream:

- electronics
- batteries
- fluorescent lighting (mercury products)
- Packaging and beverage containers
- Paint

Product stewardship of these items will help reduce overall human health and environmental impacts from the manufacture, use, and disposal of these products.

2.6 REGULATORY FRAMEWORK

2.6.1 State Department of Ecology

The 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 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, Chapter 8.14.

2.6.2 Other Regulations and Compatibility

Federal, State and County regulations that support or interact with the County Solid and Hazardous Waste Management programs are described in Chapter 9, 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, environmental policy, and planning. Each of these impacts the design operation and financing of the County's solid waste system.

Locally, the S&H Plan must be compatible with the following County Code and Comprehensive Plan:

1. San Juan County Code
 - a. Chapter 8.12, Solid Waste Disposal
 - b. Chapter 8.14, Solid Waste and Biosolids Handling and Facilities
 - c. Chapter 8.20, Board of Health
 - d. Chapter 18.30, Land Use Districts
 - e. Chapter 18.50, Shoreline Master Program
 - f. Chapter 18.60, Development Standards

2. San Juan County Comprehensive Plan
 - a. Element 7, Capital Facilities
 - b. Appendix 7, Inventory of Capital Facilities and Projected Facility Needs
 - c. Appendix 2, Joint Planning Policies with the Town of Friday Harbor

2.7 PLANNING AUTHORITY

Washington State law assigns primary responsibility for managing solid waste and moderate risk waste to local governments. Chapter 70.95 of the Revised Code of Washington requires local governments to maintain current solid waste management plans. Chapter 70.105 RCW also requires local government to develop plans for managing hazardous and moderate risk waste.

The local Solid and Hazardous Waste Plans must be complete and in good standing in order for a local government to be eligible to receive grant monies from the State's Coordinated Prevention Grant program, which is an important source of funding for waste management programs and activities. San Juan County has used this grant funding for hazardous waste round-ups, composting training workshops, and school education programs. as well as for the purchase of equipment for waste reduction and collection.

2.8 REQUIRED SOLID WASTE MANAGEMENT PLAN ELEMENTS

In accordance with RCW 70.95.090, local Solid Waste Management Plans are required to include certain elements, including:

- 1) A detailed inventory and description of all solid waste handling facilities, including any deficiencies in meeting current solid waste handling needs.
- 2) The estimated long-range needs for solid waste handling facilities, projected 20 years into the future.
- 3) A program for the orderly development of solid waste handling facilities, consistent with the plans for the entire county which:
 - o meets state minimum functional standards for solid waste handling and all laws and regulations relating to air and water pollution, fire prevention, flood control, and protection of public health;
 - o takes into account the county's comprehensive land use plan (and those of any other participating jurisdictions);
 - o contains a six-year construction and capital acquisition program for solid waste handling facilities; and
 - o and a plan for financing both capital costs and operational expenditures of the proposed solid waste management system.
- 4) A program for surveillance and control (to avoid or mitigate the negative impacts of improper waste handling and to ensure that facilities and activities are managed in accordance with regulatory requirements).
- 5) An inventory and description of current solid waste collection operations and needs within the county, including:
 - o any WUTC collection franchises in the county, along with the names and addresses of the franchise holders;
 - o any municipal solid waste operations within the county and its boundaries;
 - o the population density of each service area within the county; and
 - o the projected solid waste collection needs for each for the next six years.
- 6) A comprehensive waste reduction and recycling element that provides programs that (a) reduce the amount of waste generated, (b) provide incentives and mechanisms for source separation, and (c) establish recycling opportunities for the source separated waste.
- 7) The waste reduction and recycling element shall include
 - o waste reduction strategies and
 - o source separation strategies, including
 - programs for collection of source separated materials from residences in urban and rural areas. The programs shall include, but not be limited to, drop-off boxes, buy-back centers, or a combination of both, at each county solid waste facility or at locations convenient to the residents of the county.
 - programs to monitor collection of source-separated waste at nonresidential sites where there is sufficient density to sustain such a program.
 - programs to collect yard waste, if there are markets or capacity within or near the service area.
 - programs to educate and promote the concepts of waste reduction and recycling.

- Recycling strategies, a discussion on existing markets, characterization of the waste stream and a description of existing programs and deficiencies
 - Programs to assist the public and private with recycling and an implementation schedule for those programs.
 - A list of designated recyclables.
- 8) An assessment of the plan's impact on the costs of solid waste collection (required by WUTC).
 - 9) A review of potential areas, if any, that meet State criteria for land disposal facilities.

2.9 HAZARDOUS WASTE PLAN INCORPORATED

While some hazardous waste discussion is often included in other chapters, such as those on collection and disposal, the Hazardous Waste Plan itself is found in Chapter 10 of this document. Virtually all of the hazardous waste in the county is generated in small quantities.

The San Juan County solid waste and hazardous waste management plans are combined in this document for the first time. Any future revisions to this solid waste management plan must incorporate hazardous waste management, regardless of whether those revisions affect hazardous waste management or not.

In accordance with Section 70.105.220 RCW and the 2010 Ecology Guidelines, a local Hazardous Waste Plan (LHWP) is required to include certain elements, such as:

- A plan or program to manage moderate risk wastes, with an assessment of the quantities, types, generators, and fate of moderate risk wastes in the jurisdiction.
- A plan or program for ongoing public involvement and education, including potential hazards to human health and the environment resulting from improper use and disposal of waste.
- A description of proper methods of handling, reducing, recycling, and disposal.
- An inventory of all existing hazardous waste generators and management facilities within the jurisdiction.
- The projected solid waste collection needs for the respective jurisdictions for the next six years.
- A description of the public involvement process used in developing the plan.
- A description of the eligible zones designation in accordance with RCW 70.105.225.
- Management and Toxicity programs, including:
 - household and public education
 - household hazardous waste collection
 - business technical assistance
 - enforcement
 - used oil recycling.

2.10 STATUS OF PREVIOUS PLANS

This Plan supersedes all previous solid and hazardous waste management plans, including the *San Juan County Solid Waste Management Plan*, adopted on February 20th, 1996, by BOCC Resolution 26-1996, and the *San Juan Hazardous Waste Management Plan*, adopted on March 3rd, 1998, by BOCC Resolution 24-1998.

2.11 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 S&H Plan must be kept current. According to Ecology, a plan is generally considered to be functionally current if it adequately represents the existing:

- 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) to assess progress toward implementation and to determine 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.

2.11.1 Procedures for Amendment, Update, and Revision

AMENDMENTS

Amendments are changes that are made within the five-year planning cycle. When they are minor adjustments to the plan that are necessary to keep the plan up-to-date and ensure permits can be properly issued, grant funding can be secured, and the appropriate commodities can be collected for recycling, they can be adopted through an administrative process.

Typical administrative amendments are likely to consist of such items as:

- 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.
- Updating the priorities of the plan based on the results of a feasibility study.

The administrative amendment process for San Juan County solid waste plan:

1. Proposal by Solid Waste Manager or Public Works Director.
2. Review and comment by SWAC.
3. 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 planning cycle for review and update or revision. Amendments that do not fit the definition above will be addressed during the five-year cycle of 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.

UPDATES

S&H Plan updates will be made in accordance with the five-year review cycle 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 Hazardous 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.

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 WUTC cost assessment and a plan revision are required. Major changes, which cannot be accomplished under the Plan goals, policy objectives, and recommended strategies in the adopted plan may require a plan revision.
- Plan revisions may be proposed and adopted using the following process:
- Plan revisions may be proposed by the Solid Waste Program, stakeholders and interested parties, and/or County residents. Solid Waste Program staff should be available to provide assistance as needed.
- The Solid Waste Program staff will review proposed revisions, assess potential costs and benefits of implementation, suggest changes, and make a draft recommendation for or against the proposal.
- The Solid Waste Program will submit the proposal and the draft recommendation to the SWAC for discussion.
- The Solid Waste Program will forward the results of SWAC discussion and the Solid Waste Program's final recommendation to the County Council.
- The County Council will review the proposal and approve or disapprove it. If the County Council approves the proposal, the Solid Waste Program will prepare a Plan revision for adoption by the County Council and by incorporated areas, if they are affected by the revision.
- The revised Plan will be submitted to the Department of Ecology and the Washington Utilities and Transportation Commission (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.

2.12 SUMMARY OF RECENT CHANGES IN SOLID WASTE REGULATION

San Juan County operates under state regulations that address a wide range of actions.

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, household 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 with local solid waste plans. Under the rules, some, but not all, recycling facilities may be conditionally exempt from permitting.

Electronics Product Stewardship

The U.S. Environmental Protection Agency (EPA) determined that disposal of electronic 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 toxics 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, 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 www.ecyclewashington.org.

As electronic products continue to proliferate in the marketplace, more regulations for recycling them are likely to be enacted.

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, sifting, leaking, or otherwise escaping.” Significant fines may be levied against violators. San Juan County Code 8.12.020(4) requires vehicles delivering solid waste to a county solid waste handling site to cover their loads. Violators are charged a 3- or 5-dollar fee at all County solid waste facilities for having uncovered or improperly covered loads.

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.

San Juan County Styrofoam Ban

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

ⁱ State of Washington Department of Ecology Publication no. 09-07-026

Chapter 3 BACKGROUND AND WASTE STREAM

3.1 SETTING AND CURRENT CONDITIONS

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 2000 Watershed Action 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 in the San Juan Islands.

Historically, the inhabitants of the islands were Coast Salish tribes whose livelihood was based on fishing and gathering. There is evidence of thousands of years of human use of the islands. A series of European and American mariners mapped the islands and the adjacent mainland coasts, some 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 the fishing industry. 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 and the related construction that has added to local economic growth.

3.1.1 Description of the Planning Area

The planning area includes all of the islands in the entire county. The population of San Juan County in the 2010 U.S. census count is 15,769 residents. While at least 16 of the islands in the county have year-round populations, with platted lots in Rural Residential districts, only four 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 two square miles on San Juan Island and has a population of 2,169 residents. Unincorporated urban growth areas have been established at the edge 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, Roche Harbor and Rosario, are the land use areas where waste generation may also be concentrated.



Figure 3.1 Relative location and size of islands in the county.

3.1.2 Transportation

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

3.2 OVERVIEW OF COUNTY WASTE MANAGEMENT SYSTEM

The County operates three facilities for handling solid waste, one on each of the three most populous islands. 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.

3.2.1 Summary of system operations

The San Juan County solid waste management system can be described as a series of events going from waste generation, collection, transportation, and transfer to processing and/or final disposal.

1. **Waste Generation** happens when anyone discards unwanted items. San Juan County generates waste at the rate of more than five pounds per person per day, about the same as the national average. How the waste is discarded defines the discards as garbage, recycling, or reuse.

Waste Reduction is the alternative to waste generation. Carefully selecting products for purchase and choosing alternatives to disposal, especially reuse, can significantly reduce volume and toxicity in our waste stream.

2. **Collection** systems transport discarded items to a solid waste handling facility. San Juan County has been using four systems of collection for more than a decade.

- Self-haul

Large numbers of residents and businesses in San Juan County use personal vehicles to bring their garbage and recyclable wastes to County drop boxes available at all three solid waste facilities.

Most special wastes (materials requiring special handling: used motor oil and antifreeze, motor vehicle batteries, biomedical wastes, appliances, and bulky items) are also hauled in private vehicles to the County facilities.

- Route collection service (contract carrier)

San Juan Sanitation Company (SJS), the company holding the state franchise for the county provides garbage collection service to residences and businesses throughout in the county. SJS also provides on-call service for occasional pick-up, bulky wastes, and construction/demolition debris. However, SJS provides no regular route collection of recyclable materials.

- Urban collection service

The Town of Friday Harbor Utilities Department collects garbage weekly and offers monthly recycling collection service for the Town residents.

- Collection events

The County holds hazardous waste collection events periodically at each of the three County facilities. Hazardous waste is not stored on site. Clean Harbors, a specialized company, contains the different types of hazardous materials and transports them to the mainland for disposal or recycling.

3. **Solid Waste Transfer** includes activities that prepare collected garbage and commingled recyclables for transport to another solid waste facility for further handling or for disposal. Filled 100-cubic-yard trailers can be hauled directly from San Juan and Orcas, while the 40-yard Lopez roll-off boxes are taken to Orcas for additional transfer into the Orcas trailers.
4. **Transport and disposal/recovery** involves using a vehicle to deliver garbage to a landfill for final disposal or to deliver recyclable materials to a materials recovery facility (MRF) for processing.

3.3 WASTE STREAM

3.3.1 Traffic and Tonnage

In 2010, San Juan County households, small businesses, and visitors generated more than 8,580 tons of garbage and 3,112 tons of recyclable materials. The 2010 amount was significantly down from the 2009 amount of 10,350 tons of garbage generated county-wide. In contrast to the drop in garbage generation, collected recyclables have remained around 3,000 tons for the last ten years.

The peak period at the County facilities is during the months of July through September, which coincides with the both the peak period of seasonal visitors and the most active construction season.

County data on waste generators is divided into which type of collector brings it to the County facilities: San Juan Sanitation, the Town of Friday Harbor, or self-haul customers. Data on the numbers of trips and tons of waste from each is recorded at the County facilities. Table 3-2 shows the relative numbers of traffic and tonnage delivered to three County facilities in 2010.

	TRAFFIC	TONNAGE
San Juan Sanitation	1,050	4,069
Town of Friday Harbor	348	917
Self-haul	52,552	3,580
TOTAL	53,950	8,566

3.3.2 Waste Generation and Waste Import

Although most consumer goods originate outside of the county, tons of waste: packaging, clothing, furniture, siding, games, toys, tools, appliances, and other items, are thrown away every year in San Juan County.

Special wastes

Certain types of solid waste must be managed separately from regular garbage or commingled recyclables. These waste materials, collectively known as special wastes, include used motor oil and antifreeze, batteries, construction and demolition waste, land clearing debris, appliances, tires, auto bodies, biomedical waste, asbestos, e-waste and hazardous/moderate risk waste.

Waste import

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

3.3.3 Waste Export

Since 2002, solid waste generated within the county has been packed up and transported to Waste Management's Columbia Ridge Landfill in Arlington, Oregon. The County sends commingled recyclables to a materials recovery facility (MRF) in Woodinville, Washington. At the MRF, comingled recyclables are sorted into commodities such as plastic, paper, or various metals, so that they can be used as materials for remanufacture.

3.3.4 Composition Of Disposed Waste

In June of 2010, Ecology published a study of the statewide waste stream composition (ECY Publication No. 10-07-023, June 25, 2010). San Juan County is grouped with Whatcom, Skagit, and Island Counties in the Northwest waste generation sector. The predominantly rural characteristics of all four counties indicates that the proportions of material in the NW waste stream are comparable to San Juan County. The Ecology study divides the overall waste stream for the northwest sector by weights of material classes identified in Table 3-3.

	OVERALL	RESIDENTIAL	COMMERCIAL	SELF HAUL
MATERIALS	Estimated %	Estimated %	Estimated %	Estimated %
Paper packaging	6.6	7.6	7.0	8.7
Plastic packaging	7.5	8.2	8.7	8.0
Glass	2.1	2.0	1.8	5.1
Metal	4.2	3.0	5.0	11.4
Organics	30.0	49.2	24.7	13.0
Wood debris	10.4	1.8	9.0	4.9
Construction Materials	9.3	3.1	4.7	5.5
Paper products	10.7	9.9	13.6	14.0
Plastic products	4.1	2.9	4.9	10.1
Consumer products	11.1	4.6	18.7	14.9
Haz/special wastes	2.7	5.2	1.2	4.1
Residues	1.2	2.4	0.6	0.4

(from State Department of Ecology Publication No.10-07-023)

3.4 POPULATION

The recently completed 2010 population count by the U.S. Census Bureau shows a population of 15,769 in 2010.

The 2009 population estimate by the State Office of Financial Management shows a higher predicted population than the census recorded, but remains useful to show the distribution of population.

Insert population distribution table

3.4.1 POPULATION PROJECTIONS

In November 2011 the State Office of Financial Management will release its population forecast revised in accordance with the 2010 census figures.

3.5 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.

While the garbage received at county facilities has diminished by a third from the peak in 2008, the recycling tonnage has remained the same. The County has recently imposed fees for delivery of recycling.

Recycling generation has been very stable at a little over 3,000 tons for the last 6 years.

Both nationally and locally, solid waste generation fell significantly with the recession since 2008. Garbage generation has continued to fall despite a perceived economic improvement. Locally, solid waste generation has shifted with recent changes in fees and service levels. Waste volume may continue to fall until the system is stabilized.

Without a parcel fee, or some other means of generating funds for the overall support of the system, waste volumes at County facilities will continue to fall until all that remains is SJS and marginal self haul. Once that trend has run its course, the county should expect then increases at a rate of 2.5 percent per year. There is some concern that even SJS may find a method to leave the system if rates continue to be increased.

The projected effect of parcel fees on volumes is listed in table 3-4.

Table 3-4. Potential effect of parcel fee on solid waste volumes							
YEAR	2011	2012	2013	2014	2015	2016	2017
RECYCLE tons	3,125	3,125	3,125	3,125	3,125	3,125	3,125
GARBAGE tons							
With parcel fee	7,357	6,621	6,290	6,290	6,447	6,609	6,774
Without parcel fee	7,357	6,106	5,068	4,300	4,408	4,518	4,631

Chapter 4 WASTE REDUCTION, REUSE, AND RECYCLING

Placeholder for review draft

Chapter 5. COLLECTION

5.1 INTRODUCTION

Collection is a system of gathering solid waste from residences, businesses, or other collection points and taking it to a place where it can be reused, recycled, consolidated, or disposed. Collectors include franchise haulers, commercial haulers and self-haulers.

Garbage collection is a significant part of any local government's statutory responsibility to safeguard public health and safety. San Juan County must ensure that there is a reliable means of solid waste collection in compliance with both State and County codes. Additionally, as part of collection and to promote waste reduction Washington State regulations³ require counties to have strategies to separate recyclables from garbage.

The choices San Juan County makes about meeting that responsibility for solid waste collection drive the design and construction of the entire operational system for solid waste management.

5.1.1 PROPOSED SYSTEMS

For many years, the County has delivered a basic level of local services, with three facilities, opportunities for self-haul, free recycling services, and reuse facilities at two of the three island stations. However, the costs of that system have increased, and facilities maintenance has been deferred. It is clear that the current system is not sustainable with funding solely based on fees for accepting materials when they are brought to the County facilities.

In August of 2010, county residents responded to a solid waste user opinion survey. The results showed that people want more resources dedicated to all of the services currently offered at the County facilities and want additional services, such as composting and construction waste recycling, added. However, with some exceptions, the majority of survey participants were not supportive of any of the suggested means of paying for sustained or improved levels of service.

How to fund the County services, or how to implement a different type of service, became the focus for the County Council Solid Waste Subcommittee. Two service models have emerged: Plan A - to maintain and expand the current services that the County offers, using the three County solid waste facilities, and Plan B, to cease County operations at the County facilities, pass a level of services ordinance to ensure route collection for commingled recyclable materials and encourage private businesses to provide the rest of the services, such as opening a site(s) for drop-off of garbage and commingled recycling and handling special wastes.

PLAN A

The first service model, Plan A, is based on establishing an adequate and sustainable funding source to maintain the three County facilities and current levels of service. Necessary

³ RCW 70.95.090

capital improvements and expanding services are included in the definition of adequate and sustainable. The existing route collection service will still be available, and the franchise hauler will continue to have an option to add commingled recyclables to their service. Periodic hazardous waste collection events would continue. Some collection services or events would be extended to outer islands, especially to those populations without ferry service. The San Juan Island facility will be converted to a transfer station, once adequate funding is established.

The County Council has proposed a funding source to the voters that would establish an annual solid waste user charge. The user charge would be imposed on those property owners in San Juan County that contribute to the property owner's burden to the County solid waste system. The County Council's intent is that each class of users of the solid waste system pay the county for solid waste disposal services in an amount that bears a reasonable relationship to their respective burdens on the entire system. In combination with the new user charge, tipping fees for garbage and commingled recycling would be reduced. The user charge is limited to a period of 15 years, which is calculated to be the amount of time needed to retire debt with modest charges to the users. The decision on supporting the solid waste user charge will be made by voters on the November 8, 2011.

PLAN B

The second service model, Plan B, has been proposed as the alternative system, if a funding source for Plan A is not established. It relies on a privately-operated, county-wide route collection service to provide route collection of garbage, and adds commingled recycling collection to that route collection service for all county properties.

Additionally, the County will cease operations at the three solid waste facilities, and all commercial and self-haul customers would have to go to another county to access garbage and recyclables transfer facilities. At the same time, the County solid waste facilities will be available for lease should private parties be interested in providing various waste management services. Private providers may also offer solid waste services at other locations within the county.

PLAN A- THREE COUNTY FACILITIES

In Plan A, the three County facilities would continue to operate, offering the same services that they now provide: Orcas is a transfer station, and San Juan and Lopez are drop-box facilities. Conversion of the San Juan Island drop-box facility to a transfer station will be accomplished when funding is available.

The Orcas Transfer Station is the only facility permitted and equipped to transfer commercial vehicle and compacted loads from packer trucks. Both the franchise hauler and the Town of Friday Harbor Utilities Department use trucks that need a transfer station to unload. The two drop-box facilities on San Juan Island and Lopez Island are only permitted and equipped to accept self-haul loads, which are unloaded by hand.

All three facilities currently receive commingled recyclables, which are delivered by self-haul. Route collection of residential commingled recyclables is not currently available.

The additional funding from the solid waste user charge will lead to reducing the fees for both commingled recycling and garbage services at the facilities. The reduced tipping fee would be similar between self-haulers and the franchise hauler. A fee for recycling will be needed until revenue from the solid waste user charge can support the system. However, free recycling has strong support from a significant number of customers and is the long-term goal.

The three County facilities will continue to provide drop-off services for used motor oil and antifreeze, appliances, lead/acid batteries, steel, and medical wastes. No fee will be charged for noxious weeds, beach litter, and roadside litter.

The existing Reuse facilities would continue to operate on County sites on Orcas and Lopez Islands. Periodic hazardous waste collection events would still be conducted. Some collection services or events would be extended to outer islands with priorities placed on those populations without ferry service.

Plan A does not necessarily mean that the County would continue to operate and staff the three facilities. Plan A ensures funding for the maintenance and improvements to County facilities. While retaining management control, the County will consider and seek offers for operation of the facilities from private contractors. The County will also consider shared management and operation with local groups and other government entities. Criteria for choosing an option and selecting among candidate operators need to be developed.

PLAN B - ROUTE COLLECTION

Plan B will rely on the franchise hauler's route collection of garbage and commingled recyclables. Although the County will not operate any solid waste facilities, it will encourage establishment of privately operated drop off service at one or more islands. To ensure that route collection of commingled recyclables is available to everyone, the County Council will pass a level of service (LOS) ordinance. Typically, LOS ordinances are used to add recycling collection to the services provided by a garbage collector regulated by the Washington State Utilities Commission (WUTC).

Route collection of garbage and commingled recycling will be available on the four ferry-served islands. Typically, the point of collection will be where the driveway meets a County road. Customers with a driveway that meets a private road may, or may not, receive collection at the end of their driveway. Collection at alternate locations is available for customers on both ferry and non-ferry served islands. The franchise hauler, customers, and San Juan County staff will work together in choosing the collection point for customer cans, or locating a drop-box, dumpster or compactor for customers to empty their cans for collection.

The County will consider proposals for private operation of one or more of the County facilities for the purpose of offering drop-off services. The private operator will determine what services they will offer, and how and when they will provide them. If there is no private drop-off service, then customers will subscribe to route collection.

Private businesses could choose to accept used oil, antifreeze, vehicle batteries, and white goods at their own sites. County hazardous waste collection events would be continued, as funds allow.

An option for ensuring that used motor oil and antifreeze are recycled is to provide collection at the County road and operations shops. The County shops are heated with used oil in their waste oil heaters. Capital improvements and additional staffing at these sites will be required to handle these materials at the County shops and to meet human and environmental health protection requirements.

Reuse facilities will continue to operate at their current locations, with a provision that Lopez be run under not-for-profit management.

Hazardous waste collection events would be continued, as funds allow.

More of the specific elements of Plan A and Plan B and their effects on solid waste operations are discussed in this chapter on Collection and in the following two chapters that deal with Transfer and Disposal.

5.2 GOALS

GOAL 5A. Ensure a reliable system for collection of garbage and recyclables throughout the county.

Either Plan A, the Three San Juan County Facilities model, or Plan B, the Route Collection model, is intended to meet collection Goal 5A. These Plans address the goal through different means in accordance with their different objectives.

PLAN A. THREE SAN JUAN COUNTY FACILITIES

PLAN A OBJECTIVE: Keep County Solid Waste facilities open to all self-haulers, franchised haulers, and the Town of Friday Harbor, providing the same levels of service as were available in August 2011.

The more predictable funding base established by the solid waste user charge would give the County revenue to improve facilities and services and continue to keep the three facilities operating. In response to the 2010 public opinion survey, and the vote on the November 2011 ballot measure, the County will repair and improve the three facilities in their current locations and work to improve services.

The County will make the capital improvements necessary to keep the facilities open and safe for all users throughout the county. For operations, the County may contract with private service providers, who may be required to provide the same services that the County has established.

The Port of Lopez has indicated interest in providing management for the Lopez drop box facility. If the County Council accepts the proposal, the County will enter into an interlocal agreement with the Port of Lopez for use of the site and equipment.

STRATEGIES

1. Make estimates of costs for repairs, improvements, and permit compliance. These are required to bring facilities up to state-required minimum functional standard and will serve to protect human health and the environment.
2. Redesign the sites with the goals of improved access and circulation to ensure safe, efficient, and cost-effective operations. The sites handle more than 50,000 self-haul trips each year.
3. Approve the solid waste user charge to fund improvements.

ACTIONS AND TASKS

- Complete the final design and cost estimates of necessary repairs and improvements to prioritize projects. Include operational improvements for efficiency and safety to accommodate self-haul traffic.
- Implement the solid waste user charge.
- Reduce fees for on-site services, and eventually phase out the fee for recycling.
- Review and revise flow control regulations to ensure adequate fee collection will be available to support capital investment.

PLAN B. ROUTE COLLECTION

PLAN B OBJECTIVE: Implement complete route collection of all garbage and commingled recycling to reduce County costs.

Plan B would rely on countywide route collection and add commingled recyclable materials to the route collection system. Subscribers would pay the franchise hauler (route collector) directly for the amount and frequency of collection services that the customer chooses.

The County may lease drop-off site(s) to private business(es), who would determine to offer whichever solid waste services they find appropriate.

STRATEGIES

1. Cease County operations at solid waste facilities.
2. Continue to provide hazardous waste collection events at a suitable location.
3. Ensure commingled recyclables are collected by the franchised hauler.
4. Rely on the private sector to collect special wastes. They are not included in commingled recyclables. (See Chapter 3. Section 3.3, Waste Stream, and Chapter 4, Section 4.4.1 Designated Recyclable Materials.)

San Juan Sanitation, the Solid Waste Advisory Committee, and County staff have evaluated the capacity for route collection in San Juan County. (See Chapter 3, Section 3.6.1 Options for Collecting Solid Waste.) The evaluation determined that all residences and businesses in the county can have route collection service. The majority of customers would receive collection at the end of their driveway. The remaining customers can receive collection at alternate locations chosen through working with the franchise hauler and San Juan County staff.

Further, the franchise hauler can collect construction and demolition waste, and bulky items. The typical collection point is at the place where the customer's driveway meets a county road. Alternate collection points can be on a county road, private road or along a private driveway. Residential drive-in service and even carry-out services are available at an extra charge. Charges are set by the franchise hauler, under WUTC regulation to ensure a fair and uniform price.

TASKS and ACTIONS

- Adopt a LOS Ordinance to add recycling collection to any route collection service operating in the county.
- Write an RFP to lease the sites for a nominal amount and assign responsibility for permits and capital improvements to the site operator.
- Acquire state grant or other funding for hazardous waste collection and required county match. If funded, schedule collection events.
- Analyze the County road and operations shops use as drop-off locations for used motor oil and antifreeze. The County shop will use the oil as fuel in the building's waste oil heaters. Permitting, capital improvements, and staffing are issues to resolve before these become collection points.

GOAL 5. B. Extend services to residents of non-ferry-served islands.

OBJECTIVE: Provide some collection services to residents of islands with no state ferry service.

The objective of this goal is to make collection service available to the six percent of County residents that live on non-ferry served islands. Most of these residents have been managing waste on their own.

Under Plan A, upon request from residents of non-ferry-served islands, the County should find a way to provide some service to those islands. One potential strategy would be to provide limited drop-off service at or near ports on ferry-served islands for pick up by the franchised hauler; another is to continue to rotate collection events, especially for hazardous waste..

Under Plan B, residents of non-ferry served islands would make their own arrangements for individual or collective service with the franchised hauler.

5.3 INVENTORY OF SOLID WASTE COLLECTION SERVICES

5.3.1 Collection Service Area

All of San Juan County is included in the collection service area. The Town of Friday Harbor Utilities Division provides collection services within town limits. Friday Harbor is the only incorporated municipality in San Juan County and has recently chosen to draft its own solid waste management. The Town Solid Waste Management Plan must be included in the County SWMP document. The Town Solid Waste Management Plan is found in Appendix N.

Table 5-1. County Population Densities		
AREA	SIZE	Population Density
Town of Friday Harbor	2 square miles	1,092 per square mile
County outside of Town	175 square miles	78 per square mile

5.3.2 Collection Systems

In San Juan County, there are three different regular collection systems.

1. SAN JUAN SANITATION COMPANY

San Juan Sanitation (SJS) is the private collection company that has been awarded the hauling certificate and collection area of San Juan County by the Washington Utilities and Trade Commission (WUTC).

As the **franchised hauler** for the county, SJS provides regularly scheduled solid waste collection service to residences and businesses on the four ferry-served islands and delivers the collected garbage and recycling materials to the Orcas Transfer Station. SJS collection services:

Residential Garbage. Subscription or on-call garbage route collection services. SJS does not provide route collection for recyclable materials or special wastes. SJS will pick up white goods as an on-call service.

Commercial Garbage and Recyclables. Subscription or on-call garbage and recycling collection services for resorts, markets, ports, and other businesses in the county.

SJS will also provide on-call services to non-ferry served islands.

State Regulation of Franchised Hauler

The Washington Utilities and Transportation Commission (WUTC) requires that a franchised hauler must comply with local solid waste management plans, including collection rates, service levels, and materials it must collect.

The WUTC administers state regulations on hauling collected 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 franchised hauler.

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

2. TOWN OF FRIDAY HARBOR

The Town Utilities Department provides weekly garbage pick-up service for residents and businesses. The Town also provides free pick-up of commingled recyclables (excluding cardboard and paper) monthly. The Town delivers some collected materials to the San Juan Drop Box facility, but transports all of their collected garbage to the Skagit County Transfer Station.

3. SELF-HAUL

Many residents and businesses throughout the county self-haul their garbage and recyclables to the three County solid waste facilities. Individuals also collect and transport reusable materials to reuse establishments located at County facilities on Orcas and Lopez Islands and to reuse businesses at various locations countywide. At this time self-haul is the only option for getting recyclable materials to the County facility for the majority of county residents. Commercial commingled recycling service is available for commercial customers.

5.4 SOLID WASTE COLLECTION TRENDS

Over the last ten years, garbage collection has risen from 9,107 tons a year to a peak of 12,798 tons in 2008, then down to the current figure of 8,580 tons. Recycling collection has remained steady at about 3,000 tons for the same period.

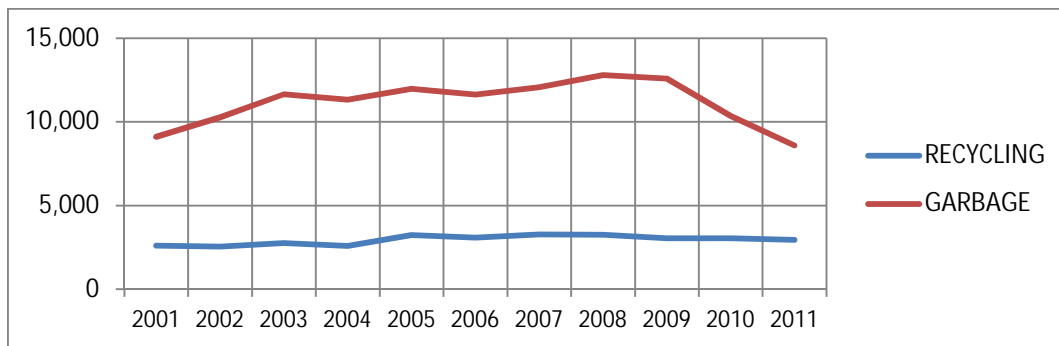


Figure 5-1 Tons of solid waste delivered to County Facilities

Tables showing the amounts of garbage and recyclables collected from 2006-2010 are found in Appendix H. Collection.

5.5 PROJECTED COLLECTION NEEDS FOR THE NEXT SIX YEARS

Collection needs under Plan A.

With three facilities, 40 percent or more of the garbage may continue to be collected by individual haulers. The franchised hauler will handle 50 percent or more of the garbage through route collection. Self-haul and packer truck traffic will be somewhere around 50,000 vehicle trips annually. If County facilities continue to serve large numbers of self-haul customers the

County must find an adequate and sustainable revenue source to fund maintenance, repairs and improvements, and increased hours of operation.

Collection needs under Plan B

If the system becomes county-wide route collection, all customers who live on County-maintained roads can expect to receive collection at the end of their driveway. The franchised hauler (SJS) is prepared to provide residential collection for garbage once each week, and alternate-week or monthly subscriptions would also be available. Customers would place cans (a maximum size of 32-gallons capacity) at the collection point. Collection charges to the customers would be made on the basis of the number of 32-gallon cans placed 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 could have the option of a compactor or drop box located on their island. SJS is currently evaluating the establishment of collection points non-ferry-served islands for use by residents from non-ferry-served islands.

Washington State has a franchise system for local garbage collection that is regulated by the WUTC. A carrier (or company) is allowed to operate exclusively in a given service area. It is against state law for another company to "poach" garbage or residential recycling customers or to haul garbage within that area. In exchange for this exclusivity, the franchised company is regulated by the WUTC with respect to safety, customer service, and rate-setting.

Collection needs for the Town of Friday Harbor

Friday Harbor, with 14 percent of the county population and more than one-quarter of San Juan Island's population, will be addressing their projected collection needs in its own plan. The Town may need to rely on local facilities to provide a broad spectrum of recycling services.

Chapter 6 TRANSFER

6.1 INTRODUCTION

Solid waste transfer includes activities that prepare collected garbage and recyclable materials for transport to another solid waste facility for further handling or for disposal.

This chapter contains a comparison of transfer operations and facilities under Plan A and Plan B. It also contains an inventory and description of the current San Juan County solid waste management facilities, their operations, and their capacities. Current deficiencies in solid waste facilities are noted along with the description of the current facilities. See Appendix I for a summary inventory of San Juan County solid waste facilities and the services they offer, and see Table 6-1 for an inventory of solid waste facility deficiencies.

In San Juan County, transfer is accomplished at the Orcas Island Transfer Station with a tipping floor used to serve collection vehicles and containers of garbage or commingled recyclables. Transfer also occurs at the Lopez Island and San Juan Island drop box facilities designed and permitted to serve residential waste drop-off. Transfer also includes the transport of materials collected at one County facility to another County facility.

The three San Juan County solid waste facilities are at the center of a comparison between the two proposed operational systems. Plan A relies on County operation of the three county facilities, all of which require capital improvements. Plan B would remove the County from actual operation of transfer and drop-off facilities. In choosing either system, San Juan County is still responsible to ensure a reliable system for solid waste management throughout the county.

6.1.1 BACKGROUND

The County has operated three solid waste facilities in San Juan County for at least 25 years.

Solid waste revenues have been used to support the costs of facility operations and transport for ten or more years. Those revenues are also the funding source for maintenance and improvements to facilities, which have been repeatedly deferred for lack of funding. In July of 2010, the San Juan Island facility's solid waste material handling permit was re-issued for operation as a drop-box facility. Orcas then became the only County facility permitted to operate a tipping floor and accepting loads from packer trucks.

The San Juan facility is now set up as a drop box facility for customers to directly hand-load

Tipping floors & 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 use drop box facilities where people throw bags or dump cans into trailers or boxes.

waste into 100-cubic yard trailers. These trailers can be hitched to a long-haul tractor rig and transported to mainland facilities for disposal or recyclables recovery and do not have to go through Orcas for transfer.

Orcas Transfer Station is the only facility in San Juan County that manages garbage and commingled recycling using both a tipping floor and drop boxes. Large commercial loads are dropped onto the tipping floor and pushed into large trailers for transport. Self-haulers hand-load directly into drop-boxes, which can also be emptied onto the tipping floor. After compacting loads into long-haul trailers, the County crew securely covers each load and completes records on traffic numbers, weights and revenues. A private contractor then picks up the loaded trailers and transports the garbage or recyclables to the mainland for disposal or to a materials recovery facility for recycling.

At the Lopez drop-box facility, 40-yard roll-off boxes are used for drop-off and transport. Either customers or County crew hand-load the garbage or commingled recyclables into the appropriate container. Full roll-off boxes are transported to the Orcas Transfer Station, where the contents can be added to the loads on the tipping floor and loaded into long-haul trailers. This interisland transport is also considered part of County transfer activities.

County facilities are equipped to accept and hold certain special wastes, such as used motor oil, antifreeze, and appliances, in on-site facilities for pickup and delivery to specialized destinations. Each component of these special wastes has capital and operational costs that affect the choices for the service options discussed in this chapter under Goal 6.A, below.

6.2 GOALS

GOAL 6.A MATCH COUNTY TRANSFER FACILITY OPERATIONS TO THE PREFERRED COLLECTION SYSTEM.

The Plan selected for transfer facilities and activities must be compatible with the model developed for the collection system. The two plans under consideration are described below.

PLAN A- THREE COUNTY FACILITIES

Plan A would continue County management of the transfer system, using three County-operated facilities and offering the same services for garbage, recyclables and special wastes that are offered in 2011.

Using Plan A, transfer operations would initially remain with the County but could be contracted to a private operator in the future. If both funding and demand are sufficient, the County would consider restoring transfer services to the San Juan Island facility.

PLAN A OBJECTIVE

Operate transfer stations on Orcas and San Juan Islands and a drop-box facility on Lopez Island. Complete the capital improvements required to continue operations.

STRATEGIES

1. Repair and improve County structures to meet state requirements.
2. Evaluate ways to reduce operating, administrative, and capital costs for transfer.
3. Include creative and innovative cost saving measures; be open to new ideas and public input.
4. Analyze funding mechanisms for facility improvements and adequate staffing.
5. Evaluate private operation of transfer stations.
6. Consider Port of Lopez proposal to operate the Lopez facility

TASKS

- Prioritize, design, fund, and schedule construction of stormwater control improvements. Purchase watertight drop boxes, construct storage facilities, and repair stormwater control systems.
- Determine if there is a more affordable method for transporting solid waste to an off-island facility.
- Determine best entity to transport solid waste: a private service provider or County.
- Implement waste reduction programs to reduce volume of garbage and recyclables brought to transfer facilities.
- Consider a contract with a private service provider for transfer operations.
- Determine if funding to support capital improvements and operations is adequate.
- Analyze feasibility and costs of Lopez local management proposal.

ACTIONS

- Once designed, budgeted, and funded, schedule and complete repairs and improvements.
- Develop interlocal agreement with Skagit County for garbage transfer and disposal.
- Analyze operational and capital costs to utilize: 100-cubic-yard trailer, 40-yard drop box, or packer trucks for County transportation.
- Conduct education programs promoting waste reduction.
- Write RFP to solicit private operation of facilities including customary services and maintenance.
- Develop lease for Lopez facility w/ Port of Lopez

PLAN B - ROUTE COLLECTION

Under Plan B, San Juan County would cease operation of all three facilities. All solid waste transfer would then occur at facilities outside San Juan County, most likely Skagit County. To ensure that county residents have an opportunity for source separation of recyclable materials from garbage, the Council would adopt a level of service (LOS) ordinance to require the franchised hauler to collect commingled recyclables. Residents will also have the option to haul solid waste to the mainland.

With Plan B, the County will offer to lease the County solid waste site and facilities to a private solid waste service provider. The provider who is selected would determine the types of services they would offer. The service provider would be responsible for the costs of facility improvements and permits.

PLAN B - ROUTE COLLECTION OBJECTIVE:

Discontinue County operation of transfer services.

STRATEGIES

1. Cease County operations at the Orcas transfer station and at all drop box locations.
2. Add commingled recyclables to route collection.
3. Offer to lease site(s) to a private service provider.
4. Determine feasibility of County-provided special waste transfer at County shops.

TASKS

- Post informational signage solid waste facilities.
- Reassign or surplus equipment.
- Adopt level of service ordinance for route collection of recyclables .
- Review flow control regulations.
- Inform the public about other service providers to take the place of special waste transfer services formerly provided by the County.
- Design modifications to shop facilities to accept special wastes (oil, antifreeze).

ACTIONS

- Research, draft and process LOS ordinance
- Draft, publish and circulate a request for proposals (RFP) to provide solid waste services at the County facilities
- Draft lease for private service provider at County facilities
- Construct shop facility modification for acceptance of some special wastes (oil, antifreeze, batteries) .

GOAL 6.B. SUPPORT EXISTING REUSE FACILITIES ON COUNTY SITES

The objective for both PLAN A and PLAN B is the same. For more on Reuse as a solid waste management tool, see Goal 4B, Objective 1 waste reduction

OBJECTIVE - Keep reuse activities on Orcas and Lopez operating.

PLAN A

STRATEGIES

1. Support reuse activities at County facilities.
2. Provide greater stability for the Exchange at the Orcas facility.
3. Maintain the operation of the Take It or Leave It at the Lopez facility, and remain open to proposals for independent management.

TASKS

- Promote public awareness of all existing reuse facilities through web-based and other media.
- Develop policies and guidelines for independent management of reuse facilities when they are located on County properties.

ACTIONS

- Develop an agreement and lease for independent non-profit Reuse facility operations on County-owned sites.
- Sign and implement lease agreement with The Exchange.
- Establish regular daily access and parking for reuse operations on County sites.

PLAN B

STRATEGIES

1. Facilitate continued reuse operations at the Exchange.
2. Assist the Lopez Take It or Leave It in transitioning out of County management.

TASKS

- Establish policies and guidelines for independent management of reuse facilities when they are located on County properties.
- Adapt the County's relationship with the Take It or Leave It from County funding and staff support to a lease with a private operator.
- Establish Lopez reuse facility as an independent operation from other management of the solid waste facility.

ACTIONS

- Develop an agreement and lease for independent non-profit reuse facility operations on County-owned sites .
- Sign and implement lease agreement with the management organization for the Exchange.
- Sign and implement lease agreement with the management organization for the Take It or Leave It.
- Establish regular daily access and parking for reuse operations on County sites.

6.3 CURRENT TRANSFER SYSTEM

The Department of Ecology Guidelines point out 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.

6.3.1. INVENTORY OF COUNTY FACILITIES

Overview of system

The County currently maintains operations at three locations. Two of them, San Juan and Lopez facilities, operate as drop box facilities, and only accept self-hauled waste. Customers at the drop box facilities unload wastes by hand and place them into open-top containers.

The Orcas Transfer Station is the only County transfer facility, and it also has a Z-wall used for the drop box facility. Garbage and recyclables collected at the Lopez drop box facility are hauled in roll-off containers to Orcas, where they are compacted into 100-cubic-yard rail-compatible containers for transport to a landfill. Recyclables are also loaded into the same sized containers for transport to a materials recovery facility (MRF).

The San Juan drop box facility loading area can accommodate 100-cubic-yard capacity containers, which are transported from San Juan Island to the landfill or the MRF.

With the exception of hazardous wastes, which are the subject of special collection events, wastes requiring special handling, such as medical wastes, appliances, and used motor oil, are held for pickup at the County solid waste facilities for disposal or recycling. Special wastes are handled using drop-off facilities for each. Individual recycling transporters visit the County facilities periodically to remove used motor oil and antifreeze, vehicle batteries, appliances (also known as white goods), and steel. Litter and noxious weeds are simply added to the garbage. Biomedical wastes are placed in secure containers and transported separately along with the garbage. Tires are added last to garbage transport, so that they can be separated and used for waste to energy conversion.

Hazardous waste collection events are held at the County facilities, but any materials delivered are containerized by a special crew and removed from the County on the same day.

SAN JUAN ISLAND DROP BOX FACILITY

The 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 incinerator and landfill sites. The site 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 three days each week and serves the San Juan Island residential population of approximately 7,700 persons, as well as several businesses. In 2010, the County recording system counted 19,937 vehicles dropping off garbage at this facility.

Facility infrastructure includes a vehicle scale, a scale house, and a metal shed-roofed building used to cover part of the recycling area.

The approximately 0.8 acre solid waste facility is leased from the Town, which maintains some of its own infrastructure on the property that is not available to the County for solid waste operations. Town property includes a closed landfill, a parking area, and the large metal building at the western edge of the property.

Services

In 2010 the two-person crew at the San Juan facility handled 2,847 tons of garbage and 1,080 tons of comingled recyclables. They also accept used appliances, batteries, motor oil, antifreeze, tires, along with litter, noxious weeds, and medical waste. In 2010, the facility was open to the public three days a week.

Garbage fees are primarily based on weight, but smaller amounts may be charged by volume. Recycling fees are based on volume. Special waste fees are based on unit or volume.

Deficiencies in the San Juan Island facility

At the request of San Juan County, the State Department of Ecology (Ecology) performed a technical assistance site visit in January 2009. They reported their observations in a letter to the County Health Department⁴. The letter, located in appendix K, explains the facility does not comply with the minimal functional standards established in State Code to have in place

⁴ Ecology Letter to Mark Tomkins, SJC Health and Community Services, February 4th, 2009



Figure 6.1 San Juan Island drop box facility

structural controls to prevent waste liquids from mixing with storm water. These controls would include: cover and containment of used oil, anti-freeze, batteries, and appliances, Many of these controls remain to be designed and constructed in 2012.

In March 2009 Ecology conducted a stormwater compliance inspection of the facility. Based upon the results of the inspection San Juan County was required to obtain coverage under a Industrial Storm Water General Permit (ISWGP) issued by the state. Ecology issued the ISWGP in July 2009 and reissued the ISWGP effective January 2010. Due to exceedances of stormwater monitoring parameters, San Juan County was required to begin treatment of the contaminated stormwater before it leaves the site by September 30, 2011. A deadline extension was granted for installing treatment by September 30, 2012.

ORCAS ISLAND TRANSFER STATION

Located at 3398 Orcas Road, which is the island's major collector road between the State Ferry terminal and the population center in Eastsound. The facility serves the Orcas Island

population of approximately 5,100 persons and numerous businesses, as well as the SJS packer truck, which collect solid waste throughout the county. The Orcas facility is also used to transfer all waste collected at the Lopez Island drop-box facility.

Only Orcas has the multiple operations, equipment, and permits that qualify it as a transfer station.

The Orcas facility operates seven days a week. It is open to the general public and commercial customers three days a week. The other four days accommodate transfer of waste from the Lopez facility, commercial waste delivery from other islands, and transfer of waste from the Orcas Z-wall containers to long-haul trailers.

The daily crew for the Orcas facility is two persons. This crew served the 21,190 vehicles recorded as delivering solid waste in 2010.



Figure 6.2 Orcas Transfer Station

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 solid waste facility and operation occupies about four acres of the County-owned 14 acres. The Exchange, a privately operated 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 Chapter 4 - Waste Reduction, Reuse, and Recycling.

Services

In 2010, the Orcas facility handled 5,189 tons of garbage and 1,474 tons of commingled recyclables.

The Orcas Island facility also provides transfer services for used batteries, appliances, motor oil, antifreeze, tires, medical waste, and steel. It transfers garbage for San Juan Sanitation Company's packer trucks, compactors, and for self-haulers. It also is available to the Town of Friday Harbor Utilities Department.

Fees for garbage and recycling are figured according to weight or volume. Special wastes are also assessed fees by unit or by volume. Special wastes are placed into containment areas and held for transport to the appropriate facilities.

Deficiencies in the Orcas Island facility

Site deficiencies listed in Table 6.1⁵ include pavement, containment drainage control, the tipping floor surface and adequate cover for collected materials, facilities, and equipment.

In addition to these issues, the steel building enclosing the tipping floor is showing signs of age that will need to be corrected. 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 waste. While each impact in itself is minor, over time the cumulative impact affects the structural integrity of the building. This structure is under evaluation by a County engineer to determine the extent and costs of repairs.

Inadequate parking, poor traffic flow and overall crowding during peak season at both The Exchange and transfer station reduces the efficient movement of customers and waste into and out of the facility.

On March 12, 2009, the Department of Ecology Field Office conducted an inspection of the Orcas solid waste facility and provided the County with a copy of the stormwater inspection report which found at least three violations of RCW 90.48.

LOPEZ ISLAND DROP BOX FACILITY

The facility is located just south of the Lopez Village Urban Growth Area boundary. It is accessed from Fisherman Bay Road, the major collector road that runs to the ferry terminal.

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

⁵⁵ *ibid*

Division. The structures on the site are a cashier's booth and an open-sided shed that contains a baler and facilities for used oil, antifreeze, batteries, sharps and other medical wastes, for recycling and special handling. The site also has a Z-wall and a metal shed that houses a reuse operation named the Take It or Leave It.



Figure 6.3 Lopez drop-box facility

the Z-wall. Commingled recyclables are usually placed in tipplers, which the site crew loads into the roll-off boxes, or directly into the roll-off boxes. San Juan Sanitation transports the filled roll-off boxes to Orcas Transfer Station and the empty roll-off boxes back to the Lopez facility. At the Orcas Transfer Station, the Lopez solid waste is consolidated with similar materials for long-haul.

The Take It or Leave It, located at the Lopez facility, is a County-funded reuse facility. It is operated by both volunteers and paid County staff. The Take It or Leave It accepts items from the general public and offers them for reuse at no charge. Details about the Take It or Leave It can be found in Chapter 4 - Waste Reduction, Reuse, and Recycling.

Deficiencies in the Lopez Island facility

The Lopez facilities suffer from the same deficiencies as the other two County facilities. They are listed in Table 6.1.

The crew at the Lopez drop box facility is two people during the hours of the three days a week that the facility is open. It serves the Lopez population of 2,500, and 11,425 vehicles were counted at the facility in 2010.

Services

In 2010, the Lopez facility handled 544 tons of garbage and 393 tons of recyclables. Lopez is a drop-box facility and has no scale or tipping floor and the facility services are only available to self-haul customers. The Lopez facility is not constructed or operated to serve the franchised hauler. The Lopez drop-box facility handles garbage, commingled recyclables, appliances, batteries, motor oil, antifreeze, tires, medical waste, and recyclable steel. All fees at this facility are based by volume.

The Lopez facility's self-haul customers usually place garbage into 30-yard roll-off boxes that are positioned at

Table 6.1 Deficiencies in County Solid Waste Handling Facilities

DEFICIENCIES	Orcas Transfer Station	San Juan Drop Box	Lopez Drop Box
Paved areas need replacement	X	X	X
Garbage area not covered and recycling materials are not properly covered	X	X	X
Garbage containers leak	X	X	X
No long-haul trailer tarping station	X	X	n/a
Inadequate covered equipment parking		X	X
Receiving and storage areas for used oil/antifreeze, battery receiving areas not adequate	X	X	X
Tipping floor cracked and concrete is not sealed	X	n/a	n/a
Tipping floor enclosure needs repair	X	n/a	n/a
No scale to weigh solid waste delivered to the facility			X

Implementing repairs and improvements to County Solid Waste facilities

Implementation of Plan A requires investing in the existing solid waste facilities to address the deficiencies listed in Table 6.1. All facilities require immediate attention to address stormwater management deficiencies that impact permit compliance. Correcting the deficiencies will require capital investment in waste storage structures, pavement repair and/or replacement, process water separation and treatment. The capital projects and their associated cost estimates are listed in Table 6.2.

After the immediate needs of all the facilities have been addressed, the County’s attention will turn to restoring transfer station operations on San Juan Island. The condition of the San Juan facility has deteriorated to the point that it can no longer operate as a transfer facility: the tipping floor cannot be used to serve the large loads from drop boxes, grocery compactors, and packer trucks. These types of equipment are currently routed to the Orcas transfer station, thus increasing the cost of solid waste services for San Juan Islanders. A number of scenarios are being considered that could return transfer operations to the San Juan facility. These are listed in table 6.3, along with conceptual cost estimates for each scenario. If the solid waste user charge is approved, the next steps in development will begin and will include more detailed cost estimates and evaluations of each scenario's capability to meet planning goals.

Table 6.2 is based on a preliminary assessment of necessary capital improvements to each of the facilities and their costs.

TABLE 6.2 Solid Waste Capital Improvements	COSTS
To continue operating one transfer station and two drop-box facilities:	
1. <u>Lopez Drop Box Facility</u> will need a series of capital improvement projects (CIP), including water-tight drop boxes, a structure for white goods storage, and pavement repairs	\$80,000
2. <u>Orcas Island Transfer Station</u> will need a series of CIP, including tipping floor & trailer bay retrofit, Z-wall retrofit, storm water treatment system, structure for white goods, watertight drop-boxes, tipping floor resurfacing, and pavement repairs.	\$214,000
3. <u>San Juan Drop Box Facility (on Town property)</u> will need a series of CIP, including covers for garbage, recycling, white goods, and equipment; containment for used oil and antifreeze; improvements to drainage and pavement repairs.	<u>\$138,000</u>
TOTAL COST TO CONTINUE THE SAME OPERATIONS	\$432,000

Table 6.3 identifies costs only for the San Juan facility to be converted into a transfer station, plus options to build new San Juan facilities on County, rather than Town, property. Details of the costs identified in the charts below are found in Appendix __. Options for Solid Waste Capital Improvements.

Table 6.3 - Capital Improvements options -San Juan Island facility	COSTS
1. Rehabilitate Transfer Station Facilities on Town site (Return tipping floor operation)	\$538,000
2. Build new full-service San Juan Drop Box Facility on County property	\$4.2M-\$5.7M
♦ Same, but w/out Construction & Demolition and/or Composting pads	\$2.9M-\$4.2M
3. Build full service San Juan Transfer Station on County property	\$5.2M-\$7.1M
♦ Same, but w/out Construction & Demolition and/or Composting Pads	\$3.9M-\$5.3M

6.4 CAPACITY AND ADEQUACY OF FACILITIES

6.4.1 Capacity

While the population increased at a little more than two percent per year between 2003 and 2005, and the solid waste stream increased proportionately during that time, we cannot assume that population growth is the only factor in the volume of solid waste collected in San Juan County. The 2010 census shows a population gain close to the state average of 14 percent between 2000 and 2010. More recent collection figures represent the sharp national downturn in construction activity and in economic growth since 2008. Additionally, in 2010, garbage

collected by the Town of Friday Harbor was no longer delivered to County facilities, further reducing volume. Figures from the first quarter of 2011 show a decline in numbers that is not accounted by the loss of the Town's business.

Since 2006, the Solid Waste Program has noted that the facility is far past its capacity to unload the number of vehicles that come to the site. The method of evaluation was based on the size of the tipping floor, the size of loads that were delivered, hours of operation, and the time required for unloading a vehicle. It showed that the San Juan Transfer Station was at 165 percent of its capacity. The evaluation was repeated in 2008 and at that time analysis showed the San Juan Transfer Station at 201 percent of its capacity, at that time. Volume projections for 2011 are currently area about a quarter of the 2006 figure, but the traffic count remains high.

6.4.2 Traffic

Both the proportion and absolute number of self-haul customers (using private vehicles) overwhelm the transfer facility in comparison with the route collector and town (using packer trucks). In 2010, packer trucks delivered more garbage in about 1,400 trips than self-haul vehicles did in almost 54,000 trips.

	TRAFFIC	TONNAGE
San Juan Sanitation	1,050	4,069
Town of Friday Harbor	348	917
Self-haul	52,552	3,580
TOTAL	53,950	8,566

As Table 6.4 demonstrates, a packer truck delivers 50 times more material, and it does not require 50 times the effort to serve it.

6.4.3 Adequacy and Service levels

San Juan County has more solid waste handling facilities per capita than any other county in the state, with one facility for every 5,500 residents. All three of the San Juan County facilities are staffed, and they accept a spectrum of solid wastes that ranges from household garbage and recyclables to hazardous waste. County crews process solid waste delivered to the County facilities in a timely manner and send it on its way for disposal or materials recovery for recycling.

Most of the service areas of the county are within 10 road miles of a solid waste facility. The three most populous settlements in the county are located within 3-5 road miles of a facility. The facilities are suitably located and convenient to reach from the current population centers and areas of projected growth.

In 2010, the County Council has raised tipping fees and added a charge for recyclables in an effort to close the gap between revenues and expenses. The first quarter of 2011 shows recycling charges added to the transfer and drop box site revenues is increasing revenues overall.

Recycling generation has been very stable for the last nine years. However, garbage generation fell significantly with the recession in 2008, and those figures have continued to fall despite perceived economic improvements. Implementing more than one change in hours and fees in the space of a year have led to some confusion, and frequent changes usually play a part in the public use of self haul to facilities.

The public has affirmed that they do not find the level of service for access and traffic at the stations satisfactory. In 2010, the County conducted a statistically-valid survey sent to half of the county households; 26 percent of them responded. When it came to services offered at the County solid waste facilities, the overwhelming number of replies were that people wanted more services. However, few responded positively to any of the means to pay for those services.

2010 SURVEY: DESIRED SERVICES AT COUNTY SW FACILITIES	
ORCAS	Hazardous waste drop-off Construction waste reuse/recycling Self-haul drop-off Scrap metals, appliances , e-waste recycling Recycling batteries Reuse facilities (The Exchange)
LOPEZ	Self-sorted (separated by type) recyclables Re-use facilities (the Take It or Leave It)
SAN JUAN	Self haul drop-off of garbage and recyclables Increased hours/more days open Hazardous waste drop-off Faster service/shorter lines Scrap metals, appliances, e-waste recycling Construction waste reuse/recycling
SHAW	Composting yard wastes Composting food scraps and other organics Construction waste reuse/recycling Agricultural plastics reuse/recycling Local shredding of newsprint, cardboard and mixed paper for mulch/compost

Chapter 7 TRANSPORT and DISPOSAL/MATERIALS RECOVERY

7.1 INTRODUCTION

In this chapter, transport describes using a vehicle to deliver garbage to a landfill for final disposal or to deliver recyclable materials to a materials recovery facility (MRF) for processing.

At this time, the County's transport system contract includes the movement of waste from San Juan County to these destinations. All waste begins its journey in an over-the-road vehicle loaded onto a ferry for Anacortes. Depending on the type of waste and its final destination, it may also travel via train. The final destination for garbage is a landfill. For commingled recycling, it is a material recovery facility (MRF). Other recyclables will end up with various private reclamation service providers. Hazardous waste is either disposed or treated.

Since all the available landfills, transportation centers, and materials recovery facilities are at a distance from San Juan County, this activity is complicated and costly.

San Juan County is seeking the lowest cost option for waste transport, disposal and recovery. Two options are currently under review.

The first is contracting with a common carrier for transport of garbage and commingled recyclables to facilities located in Skagit County, approximately twenty miles east of Anacortes, Washington. Garbage would go to Skagit County's Regional Transfer Station (RTF) and commingled recyclables could go to the Waste Management, Inc. (WMI) Skagit Hauling Transfer Station. This option includes establishing an Interlocal Agreement between San Juan County and Skagit County.

The second option is for the County itself to transport garbage and commingled recyclables to the same facilities described in the first option, above. This would require the County to establish the infrastructure, equipment, and staffing necessary for a County-run program. This option also includes establishing an Interlocal Agreement between San Juan County and Skagit County.

7.2 DISPOSAL AND RECOVERY GOALS

The objectives, strategies, actions, and tasks to achieve goals are different depending on the choice to implement plan A - Three County Transfer Stations, or Plan B - Route Collection.

GOAL 7 Ensure disposal of garbage and materials recovery from commingled recyclables at locations that are in compliance with regulations that protect public health.

PLAN A. THREE SAN JUAN COUNTY FACILITIES

If Plan A is chosen, the County may contract with a carrier to transport solid waste from the County sites, or the County may operate trucks with County staff for that transport. Analysis of these options is currently underway. At this time, transportation for disposal or materials

recovery using solid waste facilities in Skagit County appears to be the least expensive option for the county's relatively small amount of waste.

Plan A OBJECTIVE: Find and use qualified transport for disposal and recovery that is economically advantageous to San Juan County.

STRATEGIES

1. 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.⁶
2. Determine cost for a contract carrier to transport the County's collected recyclable materials to a recyclables transfer facility in Skagit County.
3. Compare the estimated cost of each of the above with the cost for the County itself to use a variety of equipment to transport waste to Skagit County.
4. Ensure legal access for San Juan County and its contractors to the Skagit County facilities.
5. Ensure funding is established for contracted transport services or for investing in equipment.

TASKS

- Write and circulate RFP for transport services for each type of destination: Disposal or MRF
- Analyze County purchase and transfer costs for: 100-cubic-yard trailer, 40-yard drop box, or packer trucks.
- Evaluate packer trucks vs. 100-cubic-yard trailer loads and space occupied on ferry for peak summer months.
- Negotiate a new interlocal agreement with Skagit County
- Establish necessary fees to match service costs.

PLAN B. ROUTE COLLECTION

If Plan B is chosen, the County will no longer contract for transport and disposal or processing or materials recovery. Rather, the franchised hauler will transport their collected solid waste to out-of-county transfer stations. County facilities may be used for private drop-off operations.

Plan B OBJECTIVE: Use route and private drop-off collection for garbage and recyclables for transport to other counties' transfer facilities.

STRATEGIES

1. Cease County operation of solid waste facilities.

⁶ Any RFP for long-haul and disposal services must be complete and returned by early 2012 to allow time to prepare a contract to take effect when the current contract expires at the end of 2012.

2. Establish agreements for use of facilities in other counties to accommodate San Juan County solid waste.
3. Continue to provide access to reuse facilities.

TASKS

The County's actions and tasks will be mostly concerned with reducing operations, ensuring the County facilities are secured and no solid wastes remain on site, and laying off the site crews. County Tasks will be more detailed in the 2nd draft.

7.3 CURRENT SYSTEM

7.3.1 Garbage

Waste Management, Inc. is under contract with San Juan County to provide transport and disposal of solid waste. The contract expires on December 31, 2012. The ten-year contract is detailed in Appendix J. Under the current contract, Waste Management charges the County \$74.13 per ton for garbage transport to and disposal at the Columbia Ridge Landfill in Arlington, Oregon. Waste Management charges \$33.48 per ton for commingled recyclables transport and delivery to Cascade Recycling in Woodinville, Washington.⁷ Ferry fees to transport Waste Management vehicles to the mainland are paid by the County.

Under a subcontract with Waste Management, Cimarron Trucking currently transports a 100-cubic-yard capacity trailer filled with compacted garbage from the Orcas transfer station an annual average of 22 times each month. The same company performs a similar service from the San Juan Island drop box facility an average of seven times a month. From each of the two islands, the eighteen-wheeler boards the ferry for the first leg of the long haul journey. After disembarking the ferry, the trucks drive the garbage load to Seattle, where the container is loaded onto a train flatcar. The train delivers the container to Arlington, Oregon, where it is offloaded onto another truck for a short trip to Columbia Ridge Landfill, where the truck dumps the trailer contents as landfill material.

Waste Management's Columbia Ridge Landfill serves two-thirds of the counties in Washington State, the cities of Seattle and Portland, as well as several Oregon counties. The 8,000 to 12,000 tons from San Juan County are less than 0.3 percent of the weight annually delivered to this landfill.

7.3.2 Recyclables

Cimarron Trucking, under a sub-contract with WMI, transports the county's commingled recyclable materials to Cascade Recycling, the material recovery facility (MRF) in Woodinville, Washington. Transportation and processing for materials recovery are also handled through a contract with Waste Management, Inc., but the journey is less complex. Each month, Cimarron

⁷ The rates cited were those charged in 2010. In accordance with the contract, this amount is adjusted annually.

Trucking hauls an average of ten loads of recyclables from Orcas and seven loads from San Juan to the WMI material recovery facility. Once there, materials are sorted, processed and packaged for delivery to buyers.

Research and reporting by King County's Waste Monitoring Program Material Recovery Facility Assessment in 2006⁸ has shown that a very small amount – only about 0.06 percent – of recyclable materials received and sorted at the material recovering center is not usable.

Appliances delivered to County SW facilities are removed by a contract private service provider, which charges \$15 each for removal of non-Freon appliances and \$35 each for refrigeration units. The contract provider takes appliances its own facility for removal of any Freon gas and then to Skagit Steel in Burlington, Washington, for material recovery and recycling.

7.3.3 Hazardous Waste disposal

The County Solid Waste Program conducts annual hazardous waste collections at each of the County solid waste facilities. The County contracts with Clean Harbors Environmental Services for removal and disposal of the collected wastes. Chapter 10, the Hazardous Waste Management Plan, contains the details of this program.

⁸ King County Department of Natural Resources and Parks Solid Waste Division, Waste Monitoring Program, 2006 Material Recovery Facility (MRF) Assessment, November 2006

Chapter 8 EDUCATION AND OUTREACH

Placeholder for review draft

Chapter 9 REGULATION, ADMINISTRATION, & ENFORCEMENT

Placeholder for review draft



Chapter 10 HAZARDOUS WASTE PLAN

Placeholder for review draft

GLOSSARY OF TERMS

Amendment Amendments are appropriate to make minor changes to a solid waste plan within the five-year planning window. Amendments can be used to change the implementation schedule, recommended actions and other specific details of the plan. Local governments should develop their own criteria for amendment development and approval at the local level, but this process must include Ecology notification within 30 days of implementation.

Anaerobic Digestion The process by which organic material is broken down by micro-organisms in the absence of oxygen. This process results in emission of a CO₂- and methane-rich biogas that can be collected and used as an energy source. The digestate can then be landfilled or composted. Advantages of this process include volume reduction of landfilled organic waste, as well as decreased landfill gas production.

Beyond Waste The ultimate message behind the State Solid Waste Management Plan. The Beyond Waste long-range vision (30 years) states that, “We can transition to a society where waste is viewed as inefficient, and where most wastes and toxic substances have been eliminated. This will contribute to economic, social and environmental vitality.” The *Beyond Waste Plan* lays out key initiatives to address as the state moves in the direction of *Beyond Waste*. These initiatives are:

1. Moving toward *Beyond Waste* with industries.
2. Reducing small volume hazardous materials and wastes.
3. Increasing recycling for organic materials.
4. Making green building practices mainstream.
5. Measuring progress toward *Beyond Waste*.

Bio-waste Food scraps plus yard trimmings (leaves, grass clippings, etc.); organic materials of biological origin with the potential to be safely returned to the soil (manure, yard and food waste, crop residues, soiled/low-grade paper, wood scrap, tree pruning discards).

Closed Loop - A cycle or system where secondary materials (wastes) are reclaimed and recycled back into the process from which they were originally generated. Close-the-Loop is a term to describe the last and most important step in the recycling process: the point at which a consumer buys a product that is made of recycled-content materials.

Collection District A county legislative authority may establish a solid waste collection district, or districts, which must be consistent with the local solid waste plan (RCW 36.58A).

Commercial Solid Waste All types of solid waste generated by stores, offices, restaurants, warehouses and other non-manufacturing activities, excluding residential and industrial wastes.

Commingled Recycling A method of collection where select recyclable commodities are mixed together and sorted at a material recovery facility (MRF).

Common Carrier a person who collects and transports solid waste for disposal by motor vehicle for compensation, whether over regular or irregular routes or by regular or irregular schedules. (RCW 81.77.010)

Composting The biological degradation and transformation of organic solid waste under controlled conditions designed to promote aerobic decomposition. Natural decay of organic solid waste under uncontrolled conditions is not composting.

Comprehensive Solid Waste Management Plan (CSWMP) A plan that outlines the operations, finances and future needs of a solid waste system. RCW 70.95.080 requires that all counties (and cities, in some cases) must have an Ecology-approved CSWMP. The requirements for these plans are outlined in RCW 70.95.090. Every five years, each county (or city) is to review the CSWMP and revise the plan when needed. (RCW 70.95.080-110)

Conditionally Exempt Small Quantity Generator (CESQG or SQG) A generator of dangerous waste whose dangerous wastes are not subject to regulation under Chapter 70.105 RCW, Hazardous Waste Management, solely because the waste is generated or accumulated in quantities below the threshold for regulation and meets the conditions prescribed in WAC 173-303-070 (8)(b).

Construction, Demolition and Land clearing Debris (CDL) The waste material that results from construction, demolition, and land clearing, largely comprised of inert and organic material. It consists of, but is not limited to, the following materials: wood waste, concrete, asphalt, roofing tiles, windows, gypsum wallboard, glass and scrap metal.

Contract Carrier all solid waste transporters not included under the terms "common carrier" and "private carrier," as defined in RCW 81.77.010; includes any person who under special and individual contracts or agreements transports solid waste by motor vehicle for compensation (RCW 81.77.010).

Controlled Solid Waste All solid waste generated and/or collected within the unincorporated areas of San Juan County.

Coordinated Prevention Grants (CPG) A Washington state grant program that supports the development, implementation and enforcement of local comprehensive solid waste management plans. For more information, refer to Chapter 173-312 WAC, Chapter 173-313 WAC and the CPG website at <http://www.ecy.wa.gov/programs/swfa/grants/cpg.html>.

Dangerous Wastes Discarded, useless, unwanted or abandoned substances, including but not limited to certain pesticides or any residues or containers of such substances, which are disposed of in such quantity or concentration that they pose a substantial present or potential hazard to human health, wildlife, or the environment. Such wastes or constituents or combinations of such wastes pose this hazard because they:

- a) have short-lived, toxic properties that may cause death, injury or illness, or have mutagenic, teratogenic or carcinogenic properties; or

b) are corrosive, explosive, flammable or may generate pressure through decomposition or other means.

Deconstruction The careful disassembly of buildings and other structures to maximize reuse and recycling of their materials.

Designated Recyclables Wastes separated for recycling or reuse, such as paper, metals, and plastics that are identified as recyclable material pursuant to a local comprehensive solid waste plan.

Disposal District An independent “taxing district” which may be formed by the county legislative authority for disposal of solid waste. Disposal districts only include unincorporated areas of the county in which they are formed, unless a city passes a resolution to be included into the district. For more information on disposal districts, see RCW 36.58.100-150.

Diversion Any method of recycling, energy production or beneficial use or reuse that prevents disposition of material in landfills or incinerators.

Drop Box Facility A facility used for placement of a detachable container; this includes the area adjacent for necessary entrance and exit roads, unloading and turnaround areas. Drop-box facilities normally serve the public with loose loads and receive waste from offsite.

Drop off The activity of a self-haul customer (private carrier) to deliver their collected garbage or recyclables to a drop box facility or other designated collection site.

E-Waste (Electronic Waste) Waste products produced as a result of spent, unusable or unwanted electronics. Examples of these products include computers, monitors, laptop computers, and televisions, which are recyclable through Washington State’s E-Cycle Program.

Energy Recovery A process operating under federal and state environmental laws and regulations for converting solid waste into usable energy and reducing the volume of solid waste. This is also sometimes referred to as Waste-to-Energy (WTE).

Enterprise Fund Revenues generated solely by user fees to support capital and operating expenses.

Environmentally Preferable Products (EPP) Products that have a lesser impact on human health and the environment when compared with competing products. The comparison process may consider the effects of raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product.

Extended Product Responsibility (EPR) A process or policy where the product manufacturer or seller takes back the product for disposal or recycling, rather than relying on the product owner to discard or recycle it appropriately. This process can maximize reuse and recycling because products do not enter the MSW management system at the end of their lives but are managed as an expected customer servicethrough an infrastructure arranged by producers.

Flow Control Local or state government authority to direct MSW to certain facilities. This is a tool governments may use to ensure financial viability of the local solid waste system. Some commonly referenced Supreme Court cases that affected the ability to control flow include C&A Carbone, Inc. v. Town of Clarkstown, and (more recently) United Haulers Association, Inc. v. Oneida-Herkimer Solid Waste Management Authority.

Food waste Organic waste derived from food products.

Franchised hauler A solid waste collection company that receives approval from the Washington Utilities and Transportation Commission (WUTC) to collect waste in a defined district.

G-Certificate A certificate of public convenience and necessity issued by the WUTC under the provisions of Chapter 81.77 RCW for the operation of solid waste collection. This certificate defines the territory and level of service required for solid waste collection in unincorporated areas of Washington State.

Green Building A concept that includes lower-impact building practices, such as on-site waste reduction/reuse/recycling, use of recycled content and low toxicity building materials, and building and landscape design that reduces energy/water use and conserves materials.

Green Team A group of employees who work together to facilitate education of the entire employee body on ways to reduce energy and materials use and to help implement programs to do so; a Green Team represents a bottom-up approach for implementing sustainable measures.

Green waste Grass clippings, weeds, leaves, evergreen cones and needles, shrub pruning under 3-inch diameter and less than 6 feet in length.

Hazardous Substance Any liquid, solid, gas or sludge, including any material, substance, product, commodity or waste, regardless of quantity, that exhibits any of the characteristics or criteria of hazardous waste as described in rules adopted under Chapter 70.105 RCW.

Hazardous Waste Unless otherwise defined by the San Juan County Board of Health, such waste has the meaning as defined by the Washington State Department of Ecology and the Washington Administrative Code. Hazardous waste is any liquid, solid, gas, or sludge that is toxic, flammable, corrosive, or reactive.

Household Hazardous Waste (HHW) Any waste that exhibits the properties of dangerous wastes (i.e., flammability, toxicity, corrosiveness, reactivity) but is exempt from the Dangerous Waste Regulations solely because it is generated by households.

Incineration Reducing the volume of solid wastes by use of an enclosed device using controlled flame combustion.

Industrial Solid Waste Solid waste generated from manufacturing operations, food processing or other industrial processes. No industrial solid waste is generated in San Juan County at this time.

Inert Waste Non-combustible, non-dangerous solid wastes that are likely to retain their physical and chemical structure under expected conditions of disposal including resistance to biological attack and chemical attack from acidic rainwater.

Interlocal Agreement A formal agreement between any two or more public agencies to work cooperatively. In solid waste planning, this usually refers to an agreement where a county and participating cities enter into an interlocal agreement to designate the county as the solid waste planning authority or where counties in a given region enter into an interlocal agreement to provide facilities or services(RCW 70.95.080 and RCW 39.34.030)

Intermediate Solid Waste Handling Facility Any solid waste handling facility which is not the final site of disposal. This includes material recovery facilities, transfer stations, drop boxes, baling, and compaction sites.

Intermodal facility Any facility operated for the purpose of transporting closed containers of waste. The containers are not opened for further treatment, processing or consolidation of the waste.

Jurisdictional Health Department (JHD) City, county, city-county or district public health department. In most cases, the JHD is the responsible agency for enforcing solid waste regulations.

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

Leachate Water or other liquid within a solid waste handling unit that has been contaminated by dissolved or suspended materials due to contact with solid waste or gases.

LEED Acronym for “Leadership in Energy and Environmental Design.” LEED is a green building rating and certification system developed by the United States Green Building Council. The LEED system is generally considered one of the most comprehensive and stringent certification systems for the development of green commercial and residential structures. For more information, see www.usgbc.org.

Local Hazardous Waste Management Plan (LHWMP) Pursuant to RCW 70.105.220, each county is required to prepare a Local Hazardous Waste Management Plan that meets the requirements listed in the law. In order to receive grant funding from Ecology for MRW projects, the scope of a project must be consistent with the LHWMP.

Long-haul system A system composed of one or more intermediate solid waste handling facilities where solid waste is collected, consolidated, and then transported by means of truck, train, or barge to a permanent disposal site outside the collection system coverage area.

Low Impact Development (LID) A stormwater management strategy that emphasizes conservation and use of natural site features integrated with small-scale stormwater controls to mimic natural hydrologic patterns in residential, commercial and industrial settings to allow rain/stormwater to soak into the ground rather than to runoff.

Materials Recovery Facility (MRF) Any facility used to collect, compact, repackage, sort or process for transport solid waste that has been separated for recycling.

Moderate Risk Waste (MRW) Solid waste that is limited to conditionally exempt small quantity generator (CESQG) waste and household hazardous waste (HHW) as defined in Chapter WAC 173-350. For the purposes of this S&H Plan, the term hazardous waste is used instead of Moderate Risk Waste to include any liquid, solid, gas, or sludge that is toxic, flammable, corrosive, or reactive.

Municipal Solid Waste (MSW) A subset of solid waste that includes unsegregated garbage, refuse and similar solid waste material discarded from residential, commercial, institutional and industrial sources and community activities, including residue after recyclables have been separated. Solid waste that has been segregated by source and characteristic may qualify for management as a non-MSW solid waste at a facility designed and operated to address the waste's characteristics and potential environmental impacts. The term MSW excludes dangerous wastes regulated under these separate state and federal laws.

Noxious weeds Noxious weeds are non-native plants that have been introduced to Washington through human actions. Because of their aggressive growth and lack of natural enemies in the state, these species can be highly destructive, competitive or difficult to control. These exotic species not only reduce crop yields and destroy native plant and animal habitat, they can damage recreational opportunities, clog waterways, lower land values and poison humans and livestock. A list of noxious weeds and how to control them can be obtained through the San Juan County or Washington State Noxious Weed Control Board.

Organics Food scraps, manure, green waste, yard waste and debris, floral scrap, animal carcasses

Planning area The geographical boundaries in which a solid waste plan will be implemented.

Planning authority In solid waste planning, the planning authority is generally the county solid waste authority or other county government program responsible for the management of solid waste. The planning authority is responsible for the development of the comprehensive solid waste management plan and the general day-to-day operations of the solid waste system.

Private carrier a person who, in his or her own vehicle, transports solid waste purely as an incidental adjunct to some other established private business. A person who transports solid waste from residential sources in a vehicle designed or used primarily for the transport of solid waste is not a private carrier (RCW 81.77.010)

Product Stewardship A practice in which producers, sellers, users and disposers assume responsibility for a product's environmental, social, and economic costs throughout the product's lifecycle. Producers design for the environment so that products contain no toxic substances, are easy to disassemble for recycling, all components are recyclable, and use recycled, rather than virgin materials in manufacture.

Reclamation Site A location used for the processing or the storage of recycled waste.

Recyclable Materials Solid wastes that are separated for recycling, including, but not limited to: papers, metals and glass that are identified as recyclable material pursuant to a local comprehensive solid waste plan.

Recycling Transforming or remanufacturing waste materials into usable or marketable materials for use other than landfill disposal or incineration. Recycling does not include collection, compacting, repackaging and sorting for the purpose of transport. Nor does recycling include combustion of solid waste or preparation of a fuel from solid waste.

Revision A plan revision is required any time a plan needs to be updated outside of a five-year planning window, when a new WUTC cost assessment is needed, or when any other major change is to be made to the plan. A revision must follow the guidance provided in these guidelines and be submitted to Ecology and adopted locally prior to plan approval.

Route Collection Collection of solid waste over regular or irregular routes, by regular or irregular schedules.

Route Collector A franchised hauler who collects and transports solid waste for compensation through special and individual contracts.

Small Quantity Generator (SQG), also known as Conditionally Exempt Small Quantity Generator (CESQG) A business that generates 220 pounds or less of hazardous waste per month and is exempt from the Dangerous Waste Regulations if all legal conditions are met.

Special wastes Any wastes that require special handling, and cannot be consolidated with garbage or commingled recycling, are known as special wastes or special handling wastes. They may be large appliances, biomedical wastes (including sharps), used motor oil, used antifreeze, lead/acid batteries, and steel. Some of these special wastes are recyclable and some can only be disposed only fit for disposal. Beach or roadside litter and noxious weeds are special wastes in the county in that they may be brought to the transfer facility free of charge.

Solid Waste All solid and semisolid wastes including, but not limited to garbage, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles or parts thereof, contaminated soils and contaminated dredged material, and recyclable materials.

Solid Waste Advisory Committee An advisory committee established at the local level within each planning jurisdiction and at the state level.

Source Separation The separation of different kinds of solid waste at the place where the waste originates.

Tipping Fee A user fee based on weight or volume of solid waste delivered to a solid waste handling facility.

Transfer Station A permanent, fixed, supplemental collection and transportation facility used by persons and route collection vehicles to deposit collected solid waste from offsite into a larger transfer vehicle for transport to a solid waste handling facility.

Vector A living animal, including, but not limited to insects, rodents and birds, capable of transmitting an infectious disease from one organism to another.

Vermicomposting The human controlled process by which live worms convert organic residues into dark, fertile, granular excrement.

Waste Characterization The composition and ratio of materials in the total waste stream. A waste characterization study can include a “waste audit” of generators.

Waste Hierarchy The priorities for waste control described by the Legislature in Chapter 70.95 RCW. These priorities are listed below, starting with the most-preferred methodology for management of solid waste:

- Waste Reduction
- Waste Reuse
- Recycling Source-Separated Waste
- Energy recovery, incineration, and/or landfilling source-separated waste
- Energy recovery, incineration and/or landfilling mixed waste

Waste prevention Any practice that reduces the amount of waste generated (e.g., extending life of products through donation, eliminating unsolicited mail, materials reuse, and waste-conscious purchasing).

Waste Reduction The practice of minimizing waste through responsible purchasing and consumerism; removing waste from the waste stream by not creating it in the first place. Also sometimes referred to as “recycling”.

White Goods washers, dryers, stoves, hot water tanks, refrigerators, freezers, other refrigerated equipment. [per WUTC and SJS]

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

WUTC The Washington Utilities and Transportation Commission or any agency which succeeds to its powers.

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

Zero Waste A philosophy and design principle for the 21st century that maximizes resources, minimizes waste, reduces consumption, and ensures that products are made to be reused, repaired, or recycled back into nature or the marketplace. Zero Waste aims to correct the current one-way industrial system into a circular system.

ACRONYMS AND ABBREVIATIONS

C&D	Construction and Demolition Debris
CIP	Capital Improvement Program
CLCP	Community Litter Cleanup Program
CMRF	Cascade Materials Recovery Facility
CPG	Coordinated Prevention Grant
CRL	Columbia Ridge Landfill
CSWMP	Comprehensive Solid Waste Management Plan
Ecology	Washington State Department of Ecology
EPA	US Environmental Protection Agency
FTE	Full-time Employee(s)
GMA	Growth Management Act
HHW	Household Hazardous Waste
LEED	Leadership in Energy & Environmental Design
MRF	Materials Recovery Facility
MRW	Moderate Risk Wastes
MSW	Municipal Solid Waste
MTCA	Model Toxics Control Act, WAC 173-340
NWPSC	Northwest Product Stewardship Council
OFM	Office of Financial Management
Plan	San Juan County Comprehensive Solid and Hazardous Waste Management Plan
RAG	Remedial Action Grant
RCW	Revised Code of Washington
S&HWMP	Solid and Hazardous Waste Management Plan
S&H Plan	Solid and Hazardous Waste Management Plan
SEPA	State Environmental Policy Act
SJCC	San Juan County Code
SQG	Small Quantity Generator
SWAC	Solid Waste Advisory Committee
SWSC	Solid Waste Subcommittee (San Juan County Council)
SWMP	Solid Waste Management Plan
SWUC	Solid waste user charge
W2R	Waste 2 Resources Program
WAC	Washington Administrative Code
WUTC	Washington Utilities and Transportation Commission

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)