



SKAGIT COUNTY

SOLID WASTE

MANAGEMENT

PLAN

September 2017
Updated July 2021

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SKAGIT COUNTY SOLID WASTE MANAGEMENT PLAN

September 2017
Updated July 2021

Prepared for:

**Skagit County Public Works Department
1800 Continental Place
Mount Vernon, Washington 98273**

Prepared by:

**Green Solutions
PO Box 680
South Prairie, WA 98385-0680
(360) 897-9533**

with assistance from:

Terrill Chang, B-Town Consulting

ACKNOWLEDGMENTS

This Skagit County Solid Waste Management Plan (SWMP) incorporates the modifications put into practice since the previous solid waste plan was published in 2008, while looking forward to the future needs of Skagit County. The Skagit County Department of Public Works would like to thank the following organizations, and those individuals who participated, for their assistance in the development of this SWMP:

- The cities and towns of Skagit County.
- The Skagit County Solid Waste Advisory Committee.
- Washington Department of Ecology staff.
- Skagit County Health, Planning and other departments.
- Skagit County's Solid Waste Division staff.

Several Skagit County residents also contributed to this document through comments provided during public meetings and through various other channels. The Board of County Commissioners and the Public Works Department gratefully acknowledge this input by the citizens.

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INTRODUCTION

1.1. ROLE AND PURPOSE

This Solid Waste Management Plan (SWMP) provides a guide for solid waste activities in Skagit County. This document was prepared in response to the Solid Waste Management Act, Chapter 70.95 of the Revised Code of Washington (RCW), which states:

“Each county within the State, in cooperation with the various cities located within such county, shall prepare a coordinated, comprehensive solid waste management plan” (RCW 70.95.080).

The Solid Waste Management Act also specifies that these plans must “be maintained in a current and applicable condition” through periodic review and revisions (RCW 70.95.110), hence the need for this update to the previous plan.

1.2. PARTICIPATING JURISDICTIONS

As indicated above, Chapter 70.95 RCW delegates the authority and responsibility for the development of solid waste management plans to the counties. State law allows cities to fulfill their solid waste management planning responsibilities in one of three ways:

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

The cities have agreed to participate through an interlocal agreement (see Appendix A).

Other governing bodies (such as Tribes and Federal agencies) may participate in the County’s planning process or conduct their own planning process. The various Tribes in Skagit County generally use the County’s waste disposal facilities. Because this SWMP may impact their current and future solid waste management options, careful review of this plan is recommended for the Swinomish Tribal Community, and the Samish, Sauk-Suiattle, and Upper Skagit Tribes. Federal agencies with significant facilities and activities in Skagit County are also encouraged to review this plan because of the potential impacts on their operations.

1.3. REQUIRED MINIMUM CONTENTS OF PLAN

The minimum contents of this SWMP are specified by State law (RCW 70.95.090) and further described in the Guidelines for Development of Local Comprehensive Solid Waste Management Plans and Plan Revisions issued by the Washington Department of Ecology (Ecology, February 2010). To summarize, solid waste management plans must contain:

- an inventory of existing solid waste handling facilities, including an assessment of any deficiencies in meeting current disposal needs.
- the estimated needs for solid waste handling facilities for a period of twenty years.
- a program for the development of solid waste handling facilities that is consistent with this SWMP and that meets the Minimum Functional Standards. The development program must also take into account land use plans; provide a six-year construction and capital acquisition program; and provide a financing plan for capital and operational costs.
- a program for surveillance and control.
- an inventory of solid waste collection needs and operations, including information on collection certificates (franchises), municipal operations, population densities, and projected solid waste collection needs for a period of six years.
- a comprehensive waste reduction and recycling element that provides for reduction of waste quantities, provides incentives and mechanisms for source separation, and provides opportunities for recycling source-separated materials.
- waste reduction and recycling strategies, including residential collection programs in urban areas, drop-off or buy-back centers at every solid waste handling facility that serves rural areas, monitoring methods for programs that collect source-separated materials from nonresidential sources, yard debris collection programs and education programs.
- an assessment of the impact that implementation of the recommendations will have on solid waste collection costs.
- a review of potential sites for solid waste disposal facilities.
- other details for specific programs and activities.

1.4. RELATIONSHIP TO OTHER PLANS

This SWMP must function within a framework created by other plans and programs, including policy documents and studies that deal with related matters. One of the more important of these documents is the Skagit County Comprehensive Plan (adopted in 1997 and most recently amended in 2016). Other important documents

that must be taken into consideration for solid waste planning include the 1992 Skagit County Moderate Risk Waste Management Plan, the Skagit County 2010 Climate Action Plan, city comprehensive plans, and several other local plans and reports.

1.5. PREVIOUS SOLID WASTE PLANS

Washington State enacted RCW 70.95.080 (requiring counties to develop solid waste plans) in 1969, and Skagit County adopted their first plan in 1973. Subsequent plans were adopted in 1981, 1987, 1994, and 2005, with an amendment to the 2005 plan adopted in 2008. Table 1-1 shows the recommendations from the most recent plan and the status of these recommendations. The current status indicates whether a recommendation has been accomplished or not, or if it is considered to be ongoing. A recommendation is shown as ongoing if it still being conducted (in other words, if it is an ongoing activity instead of a specific milestone or event). A few of the recommendations were determined to be unnecessary and so are shown as “not applicable” in Table 1-1.

1.6. SOLID WASTE ADVISORY COMMITTEE

The formation, membership makeup, and role of the Solid Waste Advisory Committee (SWAC) are specified by the 2008 Interlocal Cooperative Agreement between Skagit County and Cities and Towns in Skagit County for Solid Waste Management (as amended in 2010):

“12.1. Pursuant to Chapter 70.95.165(3) RCW and Chapter 39.34.030(4) RCW and Skagit County Code 12.18, a Solid Waste Advisory Committee shall continue operating for the purpose of rendering advice to Skagit County and the SWSGB regarding solid and moderate risk waste related issues generally, service levels, disposal rates, and short and long term planning, and especially the administration and implementation of the Comprehensive Solid Waste Management Plan.

12.2. Membership of the Solid Waste Advisory Committee shall be as follows:

- (1) Regular members. The Solid Waste Advisory Committee shall consist of:
 - (a) One member from each Party to this Agreement, to be nominated by the legislative authority for that Municipality and appointed by the County Commissioners.
 - (b) One member from each Municipality in Skagit County which has its own Comprehensive Solid Waste Management Plan, to be nominated by

Table 1-1. Status of Recommendations from the Previous Solid Waste Plan	
Background Chapter	Current Status
B1) Prior to any substantial investments in Skagit County that depend on the composition of the waste stream, a detailed study shall be conducted for the waste to be handled.	Not Applicable
Waste Reduction	
WR1) Existing activities should be continued.	Ongoing
WR2) A measurement method is needed to determine the level of waste reduction and the County should monitor progress on the development of such methods.	Ongoing
WR3) The County should promote the establishment of a reusable building materials store.	Accomplished
Public Education	
PE1) Public education is an essential element of the solid waste management system, and the current level of effort must be maintained.	Ongoing
PE2) The County, contingent on the hiring of a new Recycling Coordinator, should investigate the potential for a local program to promote business waste diversion.	Not Accomplished
PE3) Public education activities discouraging illegal dumping need to be continued.	Ongoing
Recycling	
R1) Skagit County's goal should be to show continued improvement each year, with an eventual goal of 50% waste diversion (waste reduction, recycling and composting).	Ongoing
R2) Urban service areas for solid waste services should be based on the Urban Growth Areas (UGAs) identified by the County's Comprehensive Plan, and rural areas west of Highway 9 should receive the same level of service, including curbside recycling.	Ongoing
R3) The County should hire a Recycling Coordinator to assist with the implementation of the recycling and other recommendations.	Not Accomplished
R4) Any new solid waste handling facilities should be designed to provide the maximum practical level of recycling and diversion.	Accomplished
R5) Any proposals for mixed waste processing should be considered cautiously due to the history of problems and failures that have occurred with this technology.	Accomplished
Composting	
C1) Curbside yard debris collection should be offered in all UGAs and in the rural areas west of Highway 9.	Accomplished
C2) The County Recycling and Waste Reduction Educator should continue offering educational materials about home composting of food waste.	Ongoing
C3) Any proposals for food waste composting should be considered, subject to normal permitting requirements and compatibility with the System Policy.	Ongoing
C4) Any proposals for municipal solid waste composting should be considered cautiously due to the history of problems and failures that have occurred with this technology.	Not Applicable
Waste Collection	
WC1) The cities with municipal collections should consider adding every-other-week collection of one can of garbage as an option for residential customers, and also consider adding the option of one mini-can every-other-week.	Accomplished
WC2) Incentive rates for residential customers should be added in the Recycling Service Area. Additional incentives and rate structures should also be considered.	Not Accomplished
WC3) A summary of the minimum required service levels for garbage collection, recycling, and yard debris is shown in Table 6.2.	Ongoing
System Policy	
SP1) The Health Department shall continue to require ongoing contract compliance as a condition of the annual solid waste facility permit renewal requirements.	Ongoing
SP2) The County-owned transfer station is hereby designated as the only currently-approved municipal solid waste facility in Skagit County, and all municipal solid waste generated in Skagit County must be delivered there.	Ongoing

Note: The above recommendations have been abbreviated in some cases due to space constraints, see previous plan for full text of recommendations.

Table 1-1, continued. Status of Recommendations from the Previous Solid Waste Plan	
System Policy, continued	Current Status
SP3) Other solid waste handling or disposal facilities may be allowed in the future, but only after consultation with SWAC, and approval by Skagit County Solid Waste System Governance Board and in response to a procurement process conducted by Skagit County.	Ongoing
In-County Transfer	
T1) All residuals and other municipal solid wastes from recycling, composting, or other waste processing facilities operating in Skagit County must be delivered to the County-owned transfer station (RTS).	Ongoing
T2) Increased efficiencies and other improvements should continue to be examined for the two rural sites.	Ongoing
Waste Import and Export	
WE1) Any solid waste facility designated by the County to be within the System shall be required to dispose of waste at a county designated disposal facility.	Ongoing
In-County Landfilling	
L1) Old landfills that are known to exist throughout the County, and newly discovered dumps, must be further investigated to develop a better assessment of long-term liability, public and environmental health risks.	Ongoing
Regulation and Administration	
RA1) Penalties for illegal dumping should be increased and should include a requirement for violators to spend time on a litter crew.	Not Accomplished
Special Wastes	
S1) Ongoing efforts by Ecology and the Conservation District should be encouraged and supported as appropriate.	Not Applicable
S2) The local solid waste code should be updated to define where and how biomedical wastes can be handled at Skagit County facilities.	Not Accomplished
S3) The Skagit County Public Works Department, the Health Department and the cities (those that issue building permits) shall work together to determine the feasibility of greater control over disposal of C&D waste.	Not Accomplished
S4) Recognition programs should be considered for contractors with a proven history of proper disposal.	Not Accomplished
S5) Additional education should be conducted on the need for proper disposal and the problems associated with illegal dumping.	Not Applicable
S6) In the event of a disaster, this CSWMP recommends using public properties for temporary storage/staging areas, and further recommends recycling where feasible.	Ongoing
S7) This CSWMP recommends improved communications between the Health Department, other municipal agencies and garbage collectors dealing with improper disposal of grease.	Not Applicable
S8) The Conservation District and Department of Ecology should be encouraged to work with food processors to develop better methods for handling their waste streams.	Not Applicable
S9) Recycling of inert wastes should be encouraged.	Ongoing
S10) This CSWMP recommends in favor of adopting the local MRW code.	Accomplished
S11) A collection program should be developed to handle residential fluorescent bulbs.	Accomplished
S12) The cities, County and private operators should follow the guidelines for management of street sweepings as described in the Stormwater Management Manual for Western Washington: Volume IV.	Accomplished

Note: The above recommendations have been abbreviated in some cases due to space constraints, see previous plan for full text of recommendations.

the legislative authority for that Municipality and appointed by the County Commissioners.

(c) Three members, each representing the unincorporated area of one of the three County Commissioner districts. The three members shall be recommended by the County Commissioners. The County Commissioners shall recommend candidates representing a spectrum of citizens, public interest groups, and businesses. Candidates shall be residents of Skagit County or firms licensed to do business in Skagit County.

(d) Two members shall be selected, one to represent commercial solid waste collection firms; and one to represent commercial recycling firms. These members shall be recommended by the County Commissioners.

(e) One ex officio, non-voting representative from the Skagit County Public Works Solid Waste Section.

(f) One ex officio, non-voting representative from the State of Washington Department of Ecology.

(g) One ex officio, non-voting representative from the Skagit County Health Department.

(2) Auxiliary Members. The regular membership of the Solid Waste Advisory Committee may appoint auxiliary members for a specific time period to serve on the committee in a non-voting capacity, for the purpose of providing specific information, technical advice, and information of a general nature which is pertinent to the committee's activities or any other form of assistance which will aid the committee in carrying out its purposes."

Table 1-2. Membership of the Skagit County SWAC	
Members	Area of Representation
Matt Koegel, SWAC Chair	City of Anacortes
Brian Dempsey	City of Burlington
Andy Hanson	City of Mount Vernon
Leo Jacobs, Vice Chair	City of Sedro-Woolley
Torrey Lautenbach	District #1 Citizens
Tamara Thomas	District #2 Citizens
Vacant	District #3 Citizens
Tim Crosby	Haulers
Todd Reynolds	Recyclers
John Doyle	Town of La Conner
Ex-Officio	
Margo Gillaspay	Skagit County Public Works/Solid Waste
Britt Pfaff-Dunton	Skagit County Public Health
Diana Wadley	Department of Ecology

Current as of June 2016.

As required by State law, the Skagit County SWAC includes individuals representing various interests in solid waste issues. The members represent not only the interests of their respective agencies and businesses, but as residents and members of the community they also represent the public's interest. The SWAC functioned in a review and advisory capacity throughout the plan development process. The membership as of June 2016 and affiliations of the SWAC members are shown in Table 1-2.

A change in State law (signed by the Governor on March 31, 2016) now requires a representative of the agricultural community to be included on solid waste advisory committees, but as of early 2016 this new requirement had not yet been incorporated into the Skagit County SWAC's membership and rules.

1.7. PROCESS FOR UPDATING THE SWMP

The process of updating and adopting this SWMP consisted of the following steps:

- initial meetings were held with the SWAC and the Skagit County Governance Board to discuss the planning approach and the overall direction (vision) for the new plan.
- the chapters of the new plan were prepared and reviewed with the SWAC members and County staff.
- once each of the new chapters had been reviewed with the SWAC, the chapters were compiled into a complete draft for review and comment by the SWAC members and County staff.
- with the addition of a SEPA checklist and a Cost Assessment Questionnaire, this plan became the Preliminary Draft SWMP, which was released for public review.
- coincidental with the public review period, this SWMP was submitted to the Governance Board and the Board of County Commissioners for their approval of the plan's submittal for agency review.
- the SWMP was then submitted for agency review (review by Ecology, the UTC and the Department of Agriculture).
- the comments received on the Preliminary Draft will be reviewed with the SWAC and then incorporated into the plan to produce the Final Draft SWMP.
- the Final Draft will be provided to the cities, towns and Skagit County for adoption.
- after adoption, the Final SWMP will be reviewed by the SWAC.
- after SWAC review, the Final SWMP will be submitted to Ecology for final approval.
- after final approval by Ecology, the process of updating the SWMP will be completed and the implementation period for the new SWMP will begin.

1.8. GOALS OF THE SWMP

In addition to meeting the requirements of State law and other mandates, the goals established by the Skagit County SWAC for this update of the Solid Waste Management Plan are to (not listed in order of priority):

- maintain and improve a long-term stable solid waste management system.
- create efficient service levels with respect to cost and environmental protection.
- establish level-of-service standards for urban and rural areas.
- meet governmental financial, environmental and public health obligations.
- reflect a commitment to environmental protection and preservation of quality of life.
- provide a basis for equitable allocation of costs among those benefitting from the services, subject to public health considerations.
- assure consistency with the Skagit County Comprehensive Plan and other plans.
- address system needs for projected population growth.
- give particular attention to waste stream reduction, recycling and future disposal needs.
- incorporate flexibility to anticipate future needs.
- fully fund and staff the implementation of the SWMP.
- create a solid waste system that is transparent and encourages public participation.

These goals are intended to express the vision for the planning process and the plan itself, as well as provide a guide for the long-term (20 years) implementation of the plan's recommendations. Additional direction can be obtained from the mission statement for the Skagit County Solid Waste Division, which is "to provide for municipal and household solid waste disposal for the citizens of Skagit County in accordance with applicable laws and permits and as directed by the Board of Skagit County Commissioners."

1.9. ORGANIZATION OF THE SWMP

The SWMP is organized into the following chapters:

- Chapter 2: Background
- Chapter 3: Waste Reduction
- Chapter 4: Recycling
- Chapter 5: Organics
- Chapter 6: Waste Collection
- Chapter 7: Transfer and Disposal System

Chapter 8: Special Wastes

Chapter 9: Administration Regulation and Public Education

Chapter 10: Implementation Plan

Chapter 2 provides important information about demographics, waste quantities and other factors common to the remaining chapters. Chapters 3 through 9 address specific elements of Skagit County's solid waste management system in order to:

- review existing programs, activities and policies in Skagit County and the cities for each element of the solid waste system.
- identify needs, problems, or opportunities not addressed by existing activities and programs.
- identify and evaluate alternatives to meet the identified needs, problems and opportunities. Alternatives were rated low, medium or high for several criteria (including consistency with goals, feasibility, cost-effectiveness and potential additional waste diversion), and a decision made as to whether to pursue an alternative based on their overall rating (alternatives rated low overall were generally not pursued).
- recommend future programs or actions as appropriate to the needs and abilities of the County's and Cities' residents, businesses and service-providers.
- present implementation schedules and costs for the recommended programs and facilities.

The appendices to this plan contain information relevant to the planning process, including the interlocal agreements, a description of siting factors, the UTC Cost Assessment Questionnaire, a SEPA Checklist and resolutions of adoption.

1.10. STANDARD NOMENCLATURE USED IN THE SWMP

This SWMP attempts to provide a standardized approach for the use of capitalized letters when referring to government agencies, including:

- City: When capitalized, this refers to a particular city or cities. When not capitalized, it simply refers to cities or city authority in general.
- County: When not capitalized, this refers to counties or county authority in general. When capitalized, this refers specifically to Skagit County. In the latter case, the term may apply to the County government, to the unincorporated area outside of the City, or to the entire County (including the cities). Examination of the context should clarify the exact meaning of the term.
- Ecology: When capitalized, this refers to the Washington Department of Ecology.
- State, Federal and Tribes: These words are almost always capitalized, on the grounds that these almost always refer to a specific state government

(Washington State), as well as only referring to specific tribes and a specific national government.

This SWMP also uses standard nomenclature to distinguish between different types of solid waste and recycling containers. The term “drop box” is used only for solid waste, while “carts” or “containers” can be used for either recycling or waste. More information about the definitions for words used in this SWMP can be found in the Glossary.

CHAPTER 2

BACKGROUND OF THE PLANNING AREA

2.1. INTRODUCTION

This chapter provides basic information on demographics and on the amount and composition of waste generated in Skagit County. This information is required by Ecology's guidelines and it is used in several of the following chapters of this Plan. Additional information about the physical and environmental characteristics of the County, including information relevant to siting of solid waste facilities, is provided in Appendix B.

2.2. DEMOGRAPHICS

Current Population and Demographics

According to the Washington State Office of Financial Management, Skagit County had an estimated population of 119,500 people in 2014. The eight cities in Skagit County had 70,780 residents in 2014, or 59.2% of the total population. Table 2-1 shows the County's population distribution for 2010 and 2014.

Table 2-1. Skagit County Population by Area				
Area	2010 Population	2010 Percentage	2014 Estimated Population	2014 Percentage
Incorporated Areas:				
Anacortes	15,778	13.5%	16,190	13.5%
Burlington	8,388	7.2%	8,445	7.1%
Concrete	710	0.6%	720	0.6%
Hamilton	301	0.3%	305	0.3%
La Conner	891	0.8%	895	0.7%
Lyman	438	0.4%	445	0.4%
Mount Vernon	31,743	27.2%	33,170	27.8%
Sedro-Woolley	10,540	9.0%	10,610	8.9%
Subtotal, Incorporated Areas	68,789	58.8%	70,780	59.2%
Unincorporated Areas	<u>48,112</u>	41.2%	<u>48,720</u>	40.8%
Total Population	116,901		119,500	

Source: Data is from April 1, 2014 Population of Cities, Towns and Counties, by the Washington State Office of Financial Management.

Future Population/Demographics

Evaluating growth trends in an area's population is useful in determining future trends in solid waste generation. Table 2-2 shows historical and projected population figures for Skagit County. As shown in Table 2-2, the population of Skagit County is expected to increase significantly by 2040. The projected 2040 population of Skagit County (162,740 people) represents a 34% increase over the current (2015) estimated population.

Table 2-2. Skagit County Population Trends		
Year	Total Population	Annual Increase
Historical:		
1960	51,350	---
1970	52,381	0.2%
1980	64,138	2.2%
1990	79,545	2.4%
2000	102,979	2.9%
2010	116,901	1.4%
Projected:		
2015	121,620	0.8%
2020	128,250	1.1%
2025	136,410	1.3%
2030	144,950	1.3%
2035	153,630	1.2%
2040	162,740	1.2%

Sources: Historical data is from Intercensal Estimates of April 1 Population for the State and Counties, 1960-2010, by the Washington State Office of Financial Management. Projected data is from Projections of the Total Resident Population for the Growth Management Act, Medium Series, by the Washington State Office of Financial Management.

2.3. ECONOMY

Skagit County is well-known for agricultural activities, but actually has more jobs in retail, manufacturing and several other categories (see Table 2-3). Many of the jobs in the agricultural sector are seasonal, and in 2013 the number of jobs in this sector went from a high of 3,826 in August to a low of 2,086 in December. The public sector (government) is the single largest employer. The public sector includes police and fire departments, court, public health and several other functions. Skagit County has experienced steady growth in employment in the past few years but has yet to regain all of the jobs lost in the recession.

Table 2-3. Employment by Type of Business in Skagit County (2013)			
Business Type	Number of Employees	Percentage	Statewide Percentage
Agricultural, Forestry and Fishing	2,744	5.8%	3.2%
Mining	29	0.1%	0.1%
Utilities	178	0.4%	0.2%
Construction	2,690	5.7%	4.7%
Manufacturing	5,546	11.7%	9.6%
Wholesale Trade	1,224	2.6%	4.2%
Retail Trade	6,655	14.1%	11.0%
Transportation and Warehousing	1,171	2.5%	2.8%
Information	318	0.7%	3.6%
Finance and Insurance	1,524	3.2%	3.0%
Real Estate	439	0.9%	1.5%
Technical Services	1,309	2.8%	5.8%
Management Services	166	0.4%	1.3%
Administrative, Support, Waste Management	1,161	2.5%	4.9%
Educational Services	329	0.7%	1.3%
Health Care and Social Services	4,368	9.2%	11.4%
Arts, Entertainment and Recreation	600	1.3%	1.5%
Accommodation and Food Services	3,933	8.3%	8.0%
Other Services	2,033	4.3%	4.5%
Government	<u>10,856</u>	23.0%	17.5%
Total	47,272		

Source: Data is from the Employment Security Department and is for 2013. The number of employees shown are the annual averages.

2.4. QUANTITY AND COMPOSITION OF SOLID WASTE

An analysis of the current and future quantities of solid waste in Skagit County is necessary to provide the basis for determining solid waste handling needs for the next twenty years. Composition data is also helpful for this, and for evaluating existing waste diversion programs as well as designing new programs.

The total waste stream for Skagit County consists of many types of wastes. Almost all of the County's wastes are handled through the Skagit County Transfer Station near Mount Vernon and transported to a large regional landfill in Klickitat County, Washington. Historically a small percentage of waste has "migrated" out of the County for various reasons, but in 2013 Skagit County Code 12.18 was updated to implement flow control and this has reduced this migration.

This SWMP focuses primarily on “municipal solid waste” (MSW), which are those wastes generated by residents and businesses and that are handled through the solid waste disposal system. Wastes generated by industrial and agricultural sources are generally included to the extent that these resemble MSW generated by residents and businesses, but some special wastes generated by industrial and agricultural sources are handled separately from the solid waste disposal system (such as sludges disposed by the refineries in their own landfills). Various other special wastes (such as tires, hazardous wastes, and biomedical wastes), some of which are not actually defined as solid wastes, may be handled through separate collection and disposal systems. Wastes require prior approval by the County to be handled separately.

Past and Present Solid Waste Quantities

The solid wastes disposed at Skagit County’s Transfer Station are brought there by a variety of customers, including a private hauler (Waste Management), three cities (Anacortes, Mount Vernon and Sedro-Woolley) and residential and commercial customers that are hauling their own wastes (“self-haul”). Waste from Burlington, which is collected by Waste Management through a contract with that city, is also tracked separately from the wastes collected by Waste Management in the towns and other unincorporated areas of Skagit County. Table 2-4 shows the amount of wastes from the various sources in Skagit County for 2013.

Table 2-4. Skagit County Waste Tonnages (2013)		
Source	Annual Tons	Percent
Cities	39,750	41.6%
Anacortes	7,137	7.5%
Burlington	9,617	10.1%
Mount Vernon	17,099	17.9%
Sedro-Woolley	5,898	6.2%
Waste Management (uninc. areas)	24,295	25.4%
Self-Haul	29,696	31.1%
Commercial Accounts	10,631	11.1%
Cash Customers (res. and comm.)	19,065	19.9%
Rural Drop Boxes	1,776	1.9%
Sauk	1,610	1.7%
Clear Lake	166	0.2%
Non-Revenue	84	0.1%
Litter and Illegal Dump Cleanup	84	0.1%
Recycling	(1,243)*	NA
Total	95,601	100%

Notes: Data is from Skagit County records. Tonnages are not shown for wastes from outside of Skagit County.

* Recycling tonnages are not counted in total.

Skagit County's waste stream has grown significantly in quantity over the past 30 years. Table 2-5 shows the annual waste quantities for this period and the amount of change from the previous year to the next year. These figures do not include the special wastes that are handled separately from the municipal solid waste stream (such as biomedical wastes) or waste amounts that were exported directly to out-of-county facilities.

As can be seen in Table 2-5, there have been significant fluctuations in the amount of wastes in some years. The most recent of these fluctuations occurred due to

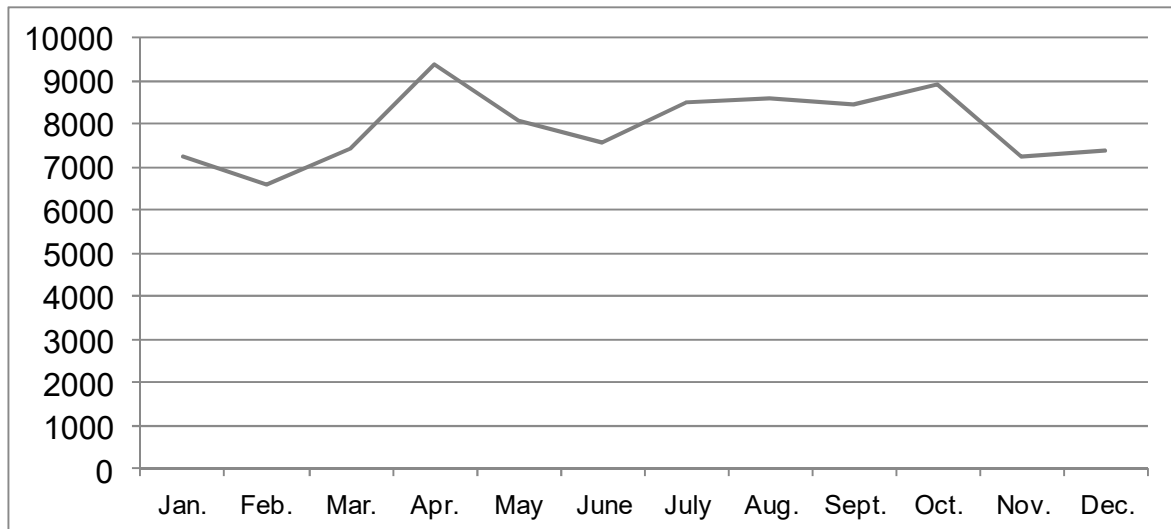
Table 2-5. Annual Disposal Tonnages		
Year	Total Waste, TPY	Percent Change
1984	42,072	--
1985	43,658	4%
1986	47,780	9%
1987	46,399	-3%
1988	57,703	24%
1989	58,943	2%
1990	61,058	4%
1991	52,705	-14%
1992	59,781	13%
1993	63,377	6%
1994	65,786	4%
1995	65,808	0%
1996	65,340	-1%
1997	67,056	3%
1998	70,705	5%
1999	78,901	12%
2000	83,249	6%
2001	86,650	4%
2002	90,037	4%
2003	93,507	4%
2004	98,036	5%
2005	100,452	2%
2006	101,486	1%
2007	106,786	5%
2008	95,859	-10%
2009	90,714	-5%
2010	90,066	-1%
2011	86,932	-3%
2012	87,321	0%
2013	93,189	7%
2014	99,189	6%

Source: Skagit County solid waste records.

the recession that began in 2008. Solid waste tonnages were lower until 2013 as a result of the recession, and have still not recovered to previous levels (although some of the decrease could be due to increased waste reduction and recycling activities).

The rate at which solid waste is generated varies throughout the year due to seasonal differences in residential and commercial activities. Data from Skagit County records shows that the amount of solid waste disposed in any one month in 2013 varied from a low of 6,619 tons in February to a high of 9,403 tons in April (see Figure 2-1). This is a typical pattern for many areas, with the lowest amounts of wastes being disposed in the winter months and the largest amounts being disposed in the spring and fall.

**Figure 2-1
Solid Waste, Tons per Month (2013)**



Current Recycling Levels

The most recent recycling survey conducted by Ecology shows that 76,169 tons of materials were recycled from Skagit County in 2013, which was less than in the previous two years. Table 2-6 shows the tonnages of materials recycled for the past five years (2009-2013), and the average of those five years.

The bottom section of Table 2-6 shows materials that are not defined as “recycling” and so cannot be included in the calculation of a recycling rate. These “diverted” materials, including materials burned for energy recovery and recycled construction materials, are being put to a beneficial use but simply are not included in the definition of recycling.

Table 2-6. Recycled and Composted Quantities by Material for Skagit County						
Material	Annual Tons					Five-Year Average
	2009	2010	2011	2012	2013	
Recycled Materials						
Cardboard	12,746	5,704	12,259	10,110	10,137	10,191
Newspaper	7,156	6,692	6,255	6,528	6,896	6,705
Other Recyclable Paper	6,703	4,307	5,715	5,626	5,446	5,559
PET Bottles	815	123	524	591	462	503
HDPE Bottles	174	122	115	2,984	215	722
Other Plastics	499	473	950	582	429	587
Glass	3,061	2,282	1,913	2,509	1,850	2,323
Aluminum Cans	268	119	272	227	226	222
Tin Cans	214	188	247	252	322	245
Appliances/White Goods	1,329	2,937	2,148	2,120	232	1,753
Ferrous Metals	17,874	22,854	36,873	27,082	21,452	25,227
Non-Ferrous Metals	4,053	744	18,157	2,011	3,098	5,613
Food Waste (Post-Consumer)	3,821	3,302	443	271	156	1,599
Yard Waste	7,221	2,882	4,798	4,593	6,844	5,268
Mixed Food/Yard Waste	0	6,970	7,323	5,810	6,895	5,400
Fats, Oils and Rendering	225	457	484	265	164	319
Textiles	1,155	538	609	1,047	195	709
Tires	723	742	795	883	478	724
Wood	700	1,261	7,778	6,448	6,609	4,559
Batteries, Auto Lead Acid	301	382	466	803	674	525
Electronics	874	53	92	580	440	408
Fluorescents	14	11	18	25	19	17
Used Oil	2,075	2,888	2,668	2,818	2,318	2,553
Other	<u>387</u>	<u>309</u>	<u>533</u>	<u>400</u>	<u>610</u>	<u>448</u>
Total Recycled	72,385	66,340	111,435	84,566	76,169	82,179
Diverted Materials						
Agricultural Organics	1,438	1,352	5,510	1,081	1,262	2,129
Antifreeze	142	203	145	115	149	151
Batteries (All Other)	3	2	3	131	170	62
C&D*	28,317	20,257	75,030	72,723	82,984	55,862
Food Processing Waste	321	1,200	1,084	4,349	2,364	1,864
Glass (for aggregate)	0	0	309	0	52	72
Landclearing Debris	327	47	174	0	0	110
Oil Filters	70	64	80	189	67	94
Reuse (clothing, household)	818	165	199	199	0	276
Tires (baled, burned, reused)	290	285	355	278	142	270
Wood (burned for energy)	9,235	2,410	6,224	53	55	3,596
Miscellaneous/Other	<u>9</u>	<u>0</u>	<u>2</u>	<u>4,628</u>	<u>6,399</u>	<u>2,208</u>
Total Diverted	40,971	25,984	89,114	83,746	93,643	66,692

Notes: All data is from the annual recycling survey conducted by Ecology.

* "C&D" tonnages include asphalt, asphalt roofing, concrete and mixed C&D.

The data in Table 2-6 can be combined with disposal data to calculate the recycling rate for Skagit County (see Table 2-7). The recycling survey conducted by Ecology shows that 45.1% of Skagit County's waste stream was recycled or composted in 2013. This figure is generally called a "recycling rate," although it also includes composting. The figure is based on 76,169 tons reported as being recycled or composted in 2013, versus a total of 168,983 tons of MSW generated (i.e., MSW disposed plus the amount recycled).

Table 2-7. Recycling and Diversion Rates						
Material	Annual Tons					Five-Year Average
	2009	2010	2011	2012	2013	
MSW:						
Recycled Materials	72,385	66,340	111,435	84,566	76,169	82,179
MSW Disposed	<u>91,215</u>	<u>90,067</u>	<u>86,933</u>	<u>86,906</u>	<u>92,814</u>	<u>89,587</u>
Waste Generation (Recycled Amount + MSW Disposed)	163,600	156,407	198,367	171,472	168,983	171,766
Recycling Rate	44.2%	42.4%	56.2%	49.3%	45.1%	47.8%
All Wastes:						
Recycled Materials	72,385	66,340	111,435	84,566	76,169	82,179
Diverted Materials	<u>40,971</u>	<u>25,984</u>	<u>89,114</u>	<u>83,746</u>	<u>93,643</u>	<u>66,692</u>
All Recovered Materials	113,356	92,325	200,549	168,312	169,812	148,871
MSW Disposed	91,215	90,067	86,933	86,906	92,814	89,587
Other Wastes Disposed	<u>8,130</u>	<u>6,157</u>	<u>5,696</u>	<u>6,133</u>	<u>22,918</u>	<u>9,807</u>
Total Wastes Disposed	99,345	96,224	92,628	93,039	115,732	99,393
Diversion Rate	53.3%	49.0%	68.4%	64.4%	59.5%	60.0%
Pounds per Capita (MSW only):						
Population	116,612	116,901	117,400	117,950	118,600	
Recycled, pounds/person/yr	1,241	1,135	1,898	1,434	1,284	1,399
Disposed, pounds/person/yr	<u>1,564</u>	<u>1,541</u>	<u>1,481</u>	<u>1,474</u>	<u>1,565</u>	<u>1,525</u>
Generated, pounds/person/yr	2,806	2,676	3,379	2,908	2,850	2,924

Sources: All data (except the population figures) is from the annual recycling survey conducted by Ecology (see www.ecy.wa.gov/programs/swfa/solidwastedata/ for more information). Population data is from Projections of the Total Resident Population for the Growth Management Act, Medium Series, by the Washington State Office of Financial Management.

The data shown in Table 2-7 can also be used to calculate a "diversion rate," which includes the diverted materials that are not counted as recycling. In this case, other types of waste that are not defined as MSW (such as industrial wastes) must also be included in the calculation.

There is little data available on the current levels of waste diverted by most forms of waste reduction, although a few categories of reuse are at least partially tracked. If all waste reduction activities and the missing recycling tonnages could be accounted for, the County's current diversion rate could be significantly greater.

Solid Waste Composition

Composition data for Skagit County's waste stream would be useful for designing solid waste handling and disposal programs. The most recent composition study performed in Skagit County was conducted in 1990. Significant changes have occurred since that study was conducted and hence it must be considered too outdated to be useful at this point. The best method for estimating the current Skagit County waste composition is to apply percentages from a waste composition study conducted for Snohomish County in 2008-2009. Table 2-8 shows the estimated waste composition for Skagit County based on this data.

Waste composition can be expected to change in the future due to changes in consumption patterns, packaging methods, disposal habits, tourism, the economy, and other factors. These changes are very difficult to predict in the long term. Furthermore, it is hoped that implementation of this SWMP will affect waste composition in Skagit County by changing purchasing and disposal habits.

Future Solid Waste Quantities

In Table 2-9, waste quantities have been projected using the current (2013) per capita generation rate multiplied by population forecasts for the County. The amounts of diverted materials and non-MSW types of solid waste are not included in these figures because these materials are typically handled outside of the County solid waste system. By using the current per capita rate without adjustments, the projected figures assume no change in the percentage of material recycled and reduced. While it could be assumed that the percentage of recycling will increase and that waste reduction will further decrease the amount of waste that is disposed, the projections shown in Table 2-9 provide a conservative baseline estimate for planning purposes. This approach also assumes no change in the amount of waste migrating to out-of-county facilities and other factors such as tourism remaining proportionate to increases in the general population.

Conclusions

Based on the projections shown in Table 2.9, the capacity of existing facilities and disposal systems (see Figure 2-2) is adequate to handle the needs of Skagit County through the planning period.

As mentioned above, the composition data for Skagit County is outdated by changes that have taken place in recent years. Performing a waste composition study or similar analysis of Skagit County's waste stream would be helpful, especially if

Table 2-8. Estimated Waste Composition in Skagit County

Material	Entire Waste Stream, % by wt	Tonnages, 2014	Select Waste Streams, % by Wt.		
			Single-Family Homes	Residential Self-Haul	Commercial
Paper	18.4%	18,240	18.3%	12.3%	22.7%
Cardboard	3.7	3,670	1.3	3.8	5.0
Newspaper	1.2	1,210	1.3	1.1	1.0
Other Recy. Paper	6.4	6,310	7.7	4.9	5.6
Compostable Paper	4.9	4,850	5.7	1.1	7.7
Non-Recyclable Paper	2.2	2,200	2.2	1.5	3.2
Plastic	13.4	13,330	12.8	9.2	18.9
PET Bottles	0.8	790	1.0	0.5	0.8
HDPE Bottles	0.6	580	0.6	0.5	0.6
Film and Bags	5.0	5,000	6.0	1.9	7.0
Other Plastics	7.0	6,990	5.2	6.4	10.5
Glass	3.6	3,610	2.4	5.4	2.7
Clear Bottles	1.3	1,270	1.2	1.5	1.1
Green Bottles	0.5	540	0.5	0.6	0.4
Brown Bottles	0.6	570	0.4	0.7	0.5
Other Glass	1.2	1,230	0.4	2.5	0.8
Metals	7.2	7,120	7.0	11.8	6.0
Aluminum Cans	0.4	420	0.4	0.2	0.4
Tin Cans	0.7	730	1.1	0.4	0.6
Other Metals	6.0	5,970	5.5	11.2	5.0
Organics	16.9	16,770	28.4	7.0	15.4
Food Waste	14.6	14,510	26.2	5.5	13.1
Yard Debris	2.3	2,270	2.2	1.5	2.3
Other	21.3	21,100	29.2	20.6	15.4
Disposable Diapers	2.5	2,490	5.7	1.4	0.6
Textiles, Shoes	3.8	3,760	3.8	2.9	5.0
Tires, Rubber Products	0.3	250	0.2	0.3	0.3
Animal Excrement	2.7	2,720	7.2	2.3	0.3
Other Special Wastes	1.3	1,220	0.9	1.9	1.0
Other Materials	10.7	13,380	11.6	11.8	8.1
Wood, Const. Debris	19.2	19,020	1.8	33.8	19.0
Wood Waste	13.8	13,640	1.2	26.0	15.3
Construction Debris	5.4	5,380	0.6	7.8	3.7

Notes: Tonnages are based on Skagit County's 2014 disposed amount of 99,189 tons. Percentage figures are from the Snohomish County Waste Composition Study, April 2009.

Table 2-9. Projected Solid Waste and Recycling Quantities for Skagit County				
	2013	2015	2025	2035
Population	118,600	121,620	136,410	153,630
Recycled Amounts, tons/year	76,169	78,080	87,580	98,630
Disposed Amounts, tons/year	<u>92,184</u>	<u>95,170</u>	<u>106,740</u>	<u>120,200</u>
Total Waste Generated, tons/year	168,983	173,250	194,320	218,930

Source: Based on the per capita figures shown in Table 2-7 and population figures shown in Table 2-2.

programs or facilities are proposed that depend on the composition of the waste stream. A detailed local study would, however, would cost a substantial amount (\$150,000 to \$200,000) and so is not being recommended at this time. Prior to any substantial investments in Skagit County that depend on the composition of the waste stream, a detailed study should be considered.

Figure 2-2
Location of Skagit County Solid Waste Facilities



WASTE REDUCTION

3.1. PREFACE TO THE WASTE REDUCTION, RECYCLING AND ORGANICS CHAPTERS

Introduction

This chapter and the following two chapters on recycling and organics describe existing programs and future plans for activities that reduce the amount of solid waste being generated or disposed in Skagit County. This chapter discusses waste reduction methods that reduce the amount of waste being generated, while the next two chapters discuss methods that reduce the amounts being disposed. In other words, waste reduction methods prevent wastes from being created, while recycling and composting handle materials after those have been created as a waste. Collectively, these approaches (waste reduction, recycling and composting) are known as “waste diversion” in this plan.

Purpose

Chapters 3, 4 and 5 provide an update of the County’s waste diversion methods and comply with State requirements regarding waste reduction and recycling opportunities and programs. The State requirements are shown in various sections of the Revised Code of Washington (RCW) and the Washington Administrative Code (WAC). Additional guidance is also provided by Ecology’s solid waste planning guidelines and the Beyond Waste Plan. In 2010, RCW 70.95.080 was amended to include:

- “(1) When updating a solid waste management plan developed under this chapter, after June 10, 2010, local comprehensive plans must consider and plan for the following handling methods or services:
 - (a) Source separation of recyclable materials and products, organic materials, and wastes by generators;
 - (b) Collection of source separated materials;
 - (c) Handling and proper preparation of materials for reuse or recycling;
 - (d) Handling and proper preparation of organic materials for composting or anaerobic digestion; and
 - (e) Handling and proper disposal of nonrecyclable wastes.
- (2) When updating a solid waste management plan developed under this chapter, after June 10, 2010, each local comprehensive plan must, at a minimum, consider methods that will be used to address the following:
 - (a) Construction and demolition waste for recycling or reuse;

- (b) Organic material including yard debris, food waste, and food contaminated paper products for composting or anaerobic digestion;
- (c) Recoverable paper products for recycling;
- (d) Metals, glass, and plastics for recycling; and
- (e) Waste reduction strategies.”

The Legislature’s stated intent for making this amendment was "increasing available residential curbside service for solid waste, recyclable, and compostable materials provides enumerable public benefits for all of Washington. Not only will increased service provide better system-wide efficiency, but it will also result in job creation, pollution reduction, and energy conservation, all of which serve to improve the quality of life in Washington communities. It is therefore the intent of the legislature that Washington strives to significantly increase current residential recycling rates by 2020.”

The Beyond Waste Plan

Another relevant source of guidance on policies and goals is the State Solid and Hazardous Waste Plan. Commonly referred to as the “Beyond Waste plan,” this plan has adopted a vision that states:

We can transition to a society where waste is viewed as inefficient, and where most wastes and toxic substances have been eliminated. This will contribute to economic, social and environmental vitality.

This transition is expected to take 20 to 30 years or more.

The Beyond Waste plan has been recently updated (the “2015 Update”). The plan previously focused on actions that could be taken in five areas (industrial waste, small volume hazardous waste, organic materials, green building, and measuring progress). The updated Beyond Waste plan is divided into five sections:

- Managing Hazardous Waste and Materials
- Managing Solid Waste and Materials
- Reducing Impacts of Materials and Products
- Measuring Progress
- Providing Outreach and Information

Each of these sections presents goals and actions that can be taken over the next five years. The updated plan also incorporates the concept of sustainable materials management, which has been adapted from recent work by the U.S. Environmental Protection Agency (EPA). Sustainable materials management looks at the full life cycle of materials, from the design and manufacturing phase, to the use phase, and then to the end-of-life phase when the material is either disposed or recycled.

Materials management still focuses on recycling and disposal issues, but in looking at production methods and the use of materials, this approach can help identify more sustainable ways to design products that use less energy, water and toxics. This is important because the adverse environmental impacts of extraction, production and use can be far greater than those associated with disposal when the product becomes a waste. According to the EPA, a materials management approach is essential to conserving natural resources to meet today's needs and those of future generations.

The Beyond Waste plan is referenced in later chapters of this SWMP as appropriate to the topics in each chapter. Copies of the Beyond Waste plan and additional information can also be downloaded from the Ecology's web site (www.ecy.wa.gov/beyondwaste/index.html).

3.2. EXISTING CONDITIONS FOR WASTE REDUCTION

Definition of Waste Reduction

Waste reduction is the highest priority for solid waste management according to Chapter 70.95 RCW, and is preferred over recycling and composting because the social, environmental and economic costs are typically lower for waste reduction. All three methods avoid the cost of disposing of the diverted materials as garbage, but recycling and composting frequently require significant additional expenses for collecting and processing the materials. Those additional expenses are avoided in the case of waste reduction, where the waste is not produced. Examples of waste reduction methods include:

- reuse a product.
- reduce consumption of materials and products.
- reduce materials used to manufacture products.
- increase the useful life of a product through durability and reparability.

By definition, waste reduction also includes activities and practices that reduce the toxicity of wastes that are created (per RCW 70.95.030(27)).

Several waste reduction activities and programs are currently conducted in Skagit County. These include a variety of public programs as well as private efforts, with the latter including a broad range of activities that are not well documented. Waste reduction could be shown to be handling significantly more waste if the private efforts could be measured more completely.

Private Reuse Activities

A significant amount of waste reduction is accomplished by second-hand and thrift shops, garage sales, used bookstores, rental shops and through similar activities. A

few charitable organizations provide collection services. Various websites also facilitate a large amount of reuse, most notably Craigslist, eBay and FreeCycle. No estimates are available for the amount of goods handled through these methods in Skagit County, but a recent study for Clark County, Washington, concluded that there were 357 companies involved in waste reduction activities (reuse, rentals and repairs) in that county. These companies employed 1,193 workers and were creating almost \$86 million of sales in Clark County annually. These estimates do not include the value of goods given away or sold on websites, through garage sales and similar activities. All of these activities benefit the economy by creating local jobs and by helping residents and businesses to “stretch” their budgets (by allowing them to purchase used or repaired goods or to rent items needed only for a short time).

Backyard Composting

An effective method of waste reduction is the composting of yard debris and vegetative food scraps on the property where it was generated (typically called “backyard” or “on-site” composting). In Skagit County, backyard composting is encouraged through demonstration gardens, workshops, the County’s website and other efforts. In 2014, five free workshops were conducted for backyard composting and six workshops were conducted for vermicomposting (use of earthworms to break down vegetable matter). Brochures and other information are available on the County’s website for these activities and for natural (non-chemical) lawn care. Home composting talks are also offered on a case-by-case basis to community groups, and volunteer trainings are provided throughout the County, such as the WSU Master Gardener Spring Intern Training and Skagit Conservation District’s Backyard Wildlife Habitat Training.

Other Activities

Many other waste reduction activities are being conducted currently in Skagit County. A few examples of these include:

- The Skagit County Master Composter/Recycler Volunteer Program is offered annually each spring. The program trains up to 30 volunteers per year in waste reduction methods, zero waste lifestyle tips, recycling, hazardous waste reduction, organic gardening and home composting. Volunteers receive 30 hours of free training, including books, tours, and hands-on composting experience. In return, they agree to give 40 hours of volunteer service back to the Skagit County community as recycling and composting educators. Each year, a minimum of 600 volunteer hours are returned to Skagit County residents in the form of Master Composter/Recycler volunteer hours.
- Skagit River Steel & Recycling actively pursues reuse opportunities for the materials they receive for recycling, including a wide range of metal parts and other supplies.

- For building materials, there are three locations in Skagit County that sell salvaged materials, including Skagit Habitat for Humanity, Skagit Building Salvage and Duluth Timber Company.
- There are at least three shipping services in Skagit County that accept styrofoam “peanuts,” “bubble wrap” and other materials for reuse (see the County’s website for current information about these services).
- Waste reduction practices have been implemented in many offices in both the public and private sectors, including reusing blank sides of paper for drafts, increased use of email and digital copies in lieu of paper copies, increased double-sided copying, and avoiding non-recyclable packaging. Recycling in all Skagit County offices has also been upgraded since 2010. All County offices now offer options for compost, recycling, as well as garbage in common areas of buildings. Desk side recycling containers are also offered and made available to all individual work stations.
- The Fidalgo Island community (“Transition Fidalgo & Friends”) has developed a plan ([Vision 2030](#)) and is regularly conducting activities that address waste reduction and other aspects of a sustainable community. Waste reduction activities include “fix-it days,” which is a booth at the Anacortes Farmers Market staffed by volunteers who help repair products, and a gleaning group (the Fidalgo Island Gleaners), who pick surplus fruit and vegetables to prevent it from going to waste.
- The Skagit Gleaners, based in Mount Vernon, gathers surplus, slightly damaged and donated food from stores, farms, restaurants and individuals throughout the Skagit Valley and provides this to 250 local families that are in need of support. This non-profit group has operated since 1984 and currently diverts about 320 tons of food from disposal.
- Community-wide garage sales help promote waste reduction through reuse. The Shelter Bay Community (near La Conner), for example, organizes a community-wide garage sale annually.
- Waste reduction is promoted as part of the Skagit County Zero Waste Event program, which certifies public and private events at either a silver or gold level for addressing waste reduction, recycling and composting at the event. This program provides recycling and organics collection containers, logos and signage, and technical assistance for events.
- The EnviroStars program conducted by the Skagit County Health Department recognizes and promotes businesses that practice waste reduction and use less toxic materials. The Local Source Control Program encourages businesses to use less-toxic alternatives for the products they use, and encourages other waste reduction methods.

Volume-Based Waste Collection Rates

A successful and effective tool for encouraging waste reduction and recycling is the use of “variable rates” or “volume-based rates,” where households are charged more for disposing of more garbage. Businesses are generally already charged according to the amount of garbage disposed and this approach is essentially impossible to implement for individual apartments, so this strategy typically refers only to single-family homes. Volume-based rates are currently in effect throughout the County for single-family homes.

3.3. PLANNING ISSUES FOR WASTE REDUCTION

Waste reduction is the highest priority waste management strategy but can be the most difficult to implement because these programs may require changes in production methods and consumption pattern. Specific waste reduction issues are discussed below.

Food Waste

Food waste is one of the largest components of the waste stream (see Table 2-8) and so its potential for waste reduction deserves attention. At the same time, there is increasing national awareness as to the amount of edible food that is going to waste. According to a recent report by the Natural Resources Defense Council,¹ 40% of edible food is wasted as it travels from farms to kitchen tables. According to the USDA, a family of four could save \$2,275 per year by avoiding food waste through simple changes in the way they handle food purchases and storage. A recent study for Thurston County (the 2014 Thurston County Waste Composition Study) showed that 7.2% of that county’s waste stream was edible food.

Reuse as a Benefit to the Local Economy

Many of the reuse activities currently occurring in Skagit County may seem minor or even trivial in scope, but these activities are actually providing a substantial amount of benefit for the local economy. Promoting these activities and finding ways to facilitate more of these activities would significantly benefit Skagit County residents.

Clothing Reuse

Despite the large number of organizations addressing clothing in Skagit County and other areas, the results of waste composition studies for other areas (see Table 2-8) show that almost 4% of the waste stream consists of clothing and shoes. Not all of this amount would be reusable, but virtually all of this could be either reused or recycled (converted to rags or other products).

¹ From “Wasted: How America is Losing up to 40 Percent of its Food from Farm to Fork to Landfill,” by Dana Gunders, staff scientist with the Natural Resources Defense Council, August 2012.

Yard Debris

Despite the wide range of options for yard debris (backyard composting, mulching of grass clippings, drop-off sites and collection programs), there is likely a significant percentage of this material disposed in Skagit County's waste stream. Based on waste composition data from other areas, the waste stream typically consists of 2-4% of yard debris.

Promotion of Volume-Based Garbage Rates

Existing volume-based garbage rates are being promoted on the websites of Skagit County, Waste Management, and Sedro-Woolley, but could be promoted better on Anacortes and Mount Vernon websites. In general, every possible opportunity should be used to promote the ability to save money on disposal fees by treating certain materials as a resource instead of a waste.

Climate Action Plan

The Skagit County Climate Action Plan adopted in 2010 included goals and activities for waste reduction. One of the goals in that plan is to reduce the amount of garbage to 10% below 2008 levels. This plan also made a number of specific recommendations regarding waste reduction and recycling, including:

- reduce and then eliminate polystyrene (styrofoam) food containers.
- prohibit marine use of expanded polystyrene.
- reduce the use of single-use food containers by County departments and educate the public to avoid these containers.
- eliminate permit fees for deconstruction projects.
- ban disposal of yard debris.
- more promotion of backyard composting in East County.

Measuring and Evaluating Waste Reduction Activities

Measuring waste reduction is difficult because the amount of waste generated in a specific area fluctuates with many variables, including economic conditions, seasonal changes and local weather. Hence, it can be difficult to demonstrate the cost-effectiveness or productivity of specific waste reduction techniques.

3.4. ALTERNATIVE WASTE REDUCTION STRATEGIES

The following alternatives were considered for new or expanded waste reduction activities. The listing of an alternative in this section does not mean that it is considered feasible or desirable, nor that is recommended (see Section 3.6 for waste reduction recommendations).

Alternative A – Ban Yard Debris from Garbage Disposal

Of all of the materials in the waste stream, yard debris is possibly the easiest material to handle through other means. Yard debris can be left on the lawn (mulching of grass clippings), applied as a mulch in landscaping and gardens, handled through backyard composting (for leaves, grass clippings and some types of food wastes), chipped on-site (for branches and other woody materials), or recycled through residential and commercial yard waste collection programs.

Some of the cities in Skagit County already ban yard debris from disposal. Hence, there is not much yard debris currently being disposed as garbage, but this approach could eliminate up to 2% of the current waste stream (see Table 2-8). If a ban is implemented, it should be accompanied by additional public education to promote alternatives such as mulching of grass clippings, backyard composting, and even vermicomposting (using worm bins to convert food wastes into a desirable soil amendment).

Alternative B – Focus on Wasted Food

A substantial amount of edible food waste is unnecessarily discarded. A public education campaign could be used to inform residents of the meaning of expiration dates, opportunities to donate food, and other steps that could be taken to reduce food waste. Skagit County could partner with other organizations, such as the Skagit Valley Food Co-Op, to help spread information about this (and for the next option, on smart shopping). Much of the materials for this campaign could be provided by other programs, such as EPA's "Too Good To Waste" program and the various strategies being used by Thurston County.

Alternative C – Promote Smart Shopping

The Cities and County could conduct more promotion on the subject of smart shopping, such as buying in bulk (at least for non-perishable items). The Cities and County could conduct a campaign that encourages:

- buying in bulk.
- buying concentrates.
- purchasing reusable products.
- buying secondhand items.
- avoiding over-packaged items.
- avoiding products containing hazardous ingredients.
- borrowing or renting when possible.
- purchasing durable and repairable products.
- using reusable shopping bags.
- shared ownership of large items with a neighbor or friend.

These activities could provide benefits to personal finances as well providing benefits to the local economy (to the extent that local businesses can provide repair and rental services).

Alternative D – Fix-It Workshops

An idea that is gaining in popularity is the use of fix-it workshops, where people can bring items in need of repairs and knowledgeable volunteers show them how to fix the item. Organizing this type of workshop is probably better accomplished by a non-profit group, but the County could help promote the workshops, provide space for the events, and possibly assist in other ways.

Alternative E – Promote Volume-Based Collection Fees

Information on volume-based rates could be more easily accessible and this approach could be more widely promoted as a way to save money by recycling and reducing wastes. The success of this approach could be monitored by the number of people who sign up for lower service levels.

Alternative F – Promote More Clothing Reuse and Recycling

Educational materials could encourage people to bring reusable or recyclable clothing to charities and other collection programs for those. Specific educational materials could be designed for clothing, but it would probably be more cost-effective to include this topic in existing materials and websites. Clothing reuse and recycling could also be a special focus of a newspaper ad, fair booth and other educational opportunity. Additional recycling options could be explored or promoted, although this idea should be approached carefully so as not to undermine existing efforts that are collecting reusable clothing for charitable purposes.

Alternative G – Collect Reusable Materials at Skagit County Transfer Station

One option to divert reusable materials from disposal could be a cooperative effort with Goodwill or another charity to collect reusable materials at the main transfer station. Several counties in Washington are working with charities to divert reusable materials through staffed trailers located prior to the entrance of a landfill or transfer station. This could also take the form of a joint effort or cooperative arrangement with one of the reusable building material operations to collect building materials. One consideration for this approach would be the degree of access to the tipping floor that would be allowed by this arrangement. If employees of the charities were reasonably allowed more access to the tipping floor to observe materials being dropped off there, rather than depending on customers to voluntarily stop at a trailer, then much more material could be recovered.

Alternative H – Promote Waste Reduction through Videos

Waste reduction lifestyle tips could be encouraged by creation of educational videos that can be viewed through a high traffic website, such as YouTube. Short, informational videos could be created to show people the basic steps to reducing

waste at home. This educational outreach method is capable of reaching many people, without a tremendous amount of work, and could cover a wide variety of topics. The time and other costs for this approach can be reduced by using videos prepared by others.

3.5. EVALUATION OF WASTE REDUCTION ALTERNATIVES

Review of Rating Criteria

The above alternatives can be evaluated and rated according to several criteria and then a decision can be made as to whether to pursue it or not based on the overall rating. These criteria include:

- consistency with the planning goals shown at the beginning of this SWMP and with the goal of diverting more materials from disposal.
- the degree to which an alternative is considered to be technically and politically feasible to implement.
- the potential for additional diversion of materials from the waste disposal system (as a percentage of the waste stream).

Consistency with Solid Waste Planning Goals: All of these alternatives support the goal of emphasizing waste reduction as a fundamental management strategy, and support other planning goals as well.

Feasibility: In judging the alternatives for technical and political feasibility, most of the alternatives can be adopted without controversy or legal issues. Alternative A (the yard waste ban) has potential issues with public acceptance and so is rated low for this criterion. Alternative D (fix-it workshops) may depend on others to implement and could be challenging to arrange, and so this alternative is rated medium. Alternative F, more clothing reuse and recycling, is rated medium for feasibility due to the questions about conflicts with existing operations (if additional reuse and recycling opportunities are established).

Diversion Potential: The alternatives are rated high for diversion potential if the alternative could potentially reduce the waste stream by more than 1%, medium for 0 to 1%, and low for alternatives that would have an impact of 0% or near zero. The alternatives for yard debris, food waste, and clothing are all rated as high because these alternatives address materials present in the waste stream in amounts higher than 1%. Likewise, volume-based fees are rated as high because these could influence the waste stream by at least this much. Alternatives G, collecting reusable materials at the transfer station, and H, producing videos that provide waste reduction tips, were rated medium based on the potential to divert a significant amount of material. Other alternatives, while still valuable, were rated low because the amounts of materials potentially diverted (or avoided) are fairly small.

Rating of Alternatives

The evaluation of the alternatives is summarized in the following table.

Table 3-1. Ratings for the Waste Reduction Alternatives				
Alternative	Consistency with Goals	Feasibility	Diversion Potential	Overall Rating
A, Ban yard debris	H	L	H	M
B, Focus on wasted food	H	H	H	H
C, Promote smart shopping	H	H	L	M
D, Fix-it workshops	H	M	L	M
E, Promote volume-based fees	H	H	H	H
F, Promote more clothing reuse and recycling	H	M	H	H
G, Collect reusables at transfer station	H	H	M	H
H, Waste reduction videos	H	H	M	H

Rating Scores: H – High, M – Medium, L – Low

3.6. WASTE REDUCTION RECOMMENDATIONS

The following recommendations are being made for waste reduction programs.

High-Priority Recommendations

- WR1) A program educating residents and businesses about avoiding food waste will be implemented.
- WR2) The availability of volume-based rates will be publicized by the County, Cities and waste collectors.
- WR3) Options for clothing reuse and recycling will be promoted.
- WR4) Skagit County will explore the possibilities for a charitable organization to collect reusable materials at the Skagit County Transfer Station.
- WR5) Skagit County will distribute videos that provide waste reduction tips.

Medium-Priority Recommendations

- WR6) A county-wide ban on yard debris disposal will be considered.
- WR7) Smart shopping will be promoted.

WR8) Fix-it workshops will be encouraged and promoted.

Overview of Implementation Responsibilities, Costs and Schedule

The lead agency responsible for implementing these recommendations will be Skagit County, with assistance from the Cities as appropriate. The costs for these activities are minor, and funds are expected to come from available County and City funds, and possibly the CPG grant program administered by Ecology.

The costs for five of these recommendations (WR2, WR3, WR4, WR5, and WR8) consist primarily of staff time. Recommendations WR1 and WR7 could cost up to \$15,000 each, depending on the level of effort expended on promoting smart shopping and food waste issues. The cost for Recommendation WR6 would include a campaign to inform the public of a yard waste ban and possibly also costs for enforcement activities.

The implementation of all of these recommendations should begin next year (2018), but implementation of many of the recommendations will be contingent upon the hiring of an additional staff person (a Recycling Coordinator, see Chapter 9 for more details).

More details on the implementation of these and other recommendations are shown in the Implementation Plan (Chapter 10).

RECYCLING

4.1. DEFINITION AND GOALS FOR RECYCLING

Definition of Recycling

“Recycling” refers to the act of collecting and processing materials to return them to a similar use. Recycling does not include materials burned for energy recovery or destroyed through pyrolysis and other high-temperature processes. The State’s definition of recycling is “recycling means 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” (Chapter 173-350 WAC). As indicated in the definition, “recycling” does not occur when people place materials in a cart or other container to be collected separately from garbage, but occurs when the materials are processed and then used to create new products. On the other hand, keeping recyclable materials separate from garbage at the point of generation is typically a critically-important first step in ensuring that the materials are actually recycled.

Recycling Goal

The State’s goal is to reach 50% recycling and composting, and this goal was achieved in 2011 when the recycling rate rose to 50.7%. More recent data shows the rate slipping a bit, dropping to 48.9% in 2013.

Chapter 70.95 RCW does not mandate that each county or city adopt a 50% goal, since it is recognized that less-populated areas have greater barriers to cost-effective collection and marketing of recyclable materials. Each community is expected to set a goal that suits its situation, provided that the goal is based on justified and sound reasoning. In Skagit County, the 2013 recycling rate was 45.1% (see Table 2.7) and the average recycling rate over the past five years (2009 to 2013) was 47.8%. After discussion by the Skagit County Governance Board and the Skagit County Solid Waste Advisory Committee of the current programs and the desire to continue to show progress, the County’s recycling goal has been set at 65%. The County’s progress towards meeting this goal should be monitored primarily through the annual recycling survey conducted by Ecology, supplemented with local data as available and appropriate.

4.2. EXISTING RECYCLING PROGRAMS

Numerous recycling activities are currently being conducted in Skagit County. These are discussed below according to the type of program. A comprehensive list of

recycling opportunities can also be found on Skagit County's website.

Drop-Off and Buy-Back Programs

The three Skagit County disposal facilities collect a variety of recyclable materials, including newspaper, cardboard, mixed waste paper, magazines, aluminum and tin cans, scrap metal, plastic bottles (pop and milk), glass bottles, appliances, motor oil, antifreeze, and batteries. The Skagit County Transfer and Recycling Station (TRS) also recovers metals from the tipping floor, as time allows.

The City of Sedro-Woolley operates a drop-off facility that accepts the typical recyclables (paper, cans, plastic and glass bottles), and also scrap metal, vehicle and household batteries, motor oil, printing cartridges, e-waste, fluorescent lights, styrofoam peanuts and bubble wrap. A few materials are accepted for recycling for a fee, including appliances, tires and "non-covered electronics" (e-waste not covered by Washington State law).

Lautenbach Industries accepts construction and demolition debris (C&D) at their processing facility on Ball Road (near the Skagit County Transfer Station) and also provides a collection service for it. Materials recycled by Lautenbach Industries include wood, drywall, plastics (plastic film and various types of rigid plastics), carpet and padding, metals, cardboard, asphalt and concrete.

Skagit River Steel and Recycling accepts the traditional recyclable materials (paper, cans, glass, and plastic bottles), and provides drop-off containers for special items such as plastic plant pots and film, electrical wiring, and many types of non-ferrous metal. Skagit River Steel serves as the processing/transfer site for some of the materials collected for recycling in Skagit County, including many of the types of materials collected at the three County sites and the City of Sedro-Woolley's site, and is currently charging a handling fee for some of these materials. Skagit River Steel also purchases metals, and recycles several special and industrial materials.

There are numerous other drop-off opportunities in Skagit County for a wide variety of materials. A few examples include:

- E-waste (electronics) can be dropped off at several locations, including Sedro-Woolley's recycling site, Best Buy (Burlington), Goodwill locations in Anacortes and Mount Vernon, Appliance Connection (Mount Vernon), E-Waste LLC (Mount Vernon), Value Village (Mount Vernon), and Anacortes Aktion Club (Anacortes).
- Ink cartridges can be returned for recycling at several local stores, or sent back to manufacturers through the mail.
- Rechargeable batteries can be dropped off at certain hardware stores and other locations (depending on the type of battery).

- In addition to drop-off sites mentioned above, appliances can also be taken to Skagit Appliance Recycling, Larry's Auto and Truck Repair, and Rita Street Appliance Recycling for recycling purposes. Several charities in the county will also accept functional appliances for reuse purposes.

Curbside Recycling Programs

The Cities of Burlington and Mount Vernon have curbside recycling programs through a contract with Waste Management. These cities pay Waste Management by the ton for materials collected. Until recently, the City of Anacortes contracted with Republic Services for curbside recycling service, but this contract was re-bid and awarded to Waste Management effective July 1, 2015. As of September 1, 2015, the City of Sedro-Woolley began providing curbside recycling and yard waste services with city crews instead of service provided by Waste Management. The cost for the recycling services in these four cities is paid by fees collected by the cities through utility billings. In all four of these cities, all single-family homes must subscribe to both garbage and recycling services. Curbside recycling in Anacortes is conducted weekly and in the other three cities it is every-other-week.

In the towns and unincorporated areas west of Highway 9, residents and businesses have the option of subscribing to every-other-week recycling services provided by Waste Management, whether they are garbage collection customers or not. The cost for this service was \$7.22 per month in early 2016. Residential and commercial customers in this area are not required to subscribe to garbage collection or recycling service. The most recently available data (2011) shows that there were 9,637 residential garbage customers in unincorporated Skagit County (including the towns of Concrete, Hamilton, La Conner and Lyman), and 3,435 recycling customers and 259 yard waste customers. There are an estimated 24,290 housing units in this area, so an estimated 40% of these households are subscribing to garbage collection, 14% are subscribing to curbside recycling and 1% are subscribing to yard waste.

The curbside programs in Skagit County collect newspaper, cardboard, mixed waste paper, paper cups, paper food boxes, milk cartons and juice boxes, aluminum and tin cans, scrap metal (less than 2 feet in any direction and under 35 pounds in weight), glass bottles and jars, and plastic bottles and tubs. The recycling programs in Skagit County use "single-stream" collection, where all materials are placed into one cart and processing facilities perform the separation later. The advantages of single-stream collection are reduced costs and greater participation, but there is also some loss of materials because the new mechanized separation techniques are not as effective as source-separation programs.

Multi-Family Recycling

Recycling services to multi-family units (apartments) are generally available in the cities, where the bulk of the apartment buildings are located. As in other areas, there are several difficulties in providing recycling services to multi-family units

(including tenant turnover, communication problems, and the ability to provide a financial incentive).

In Mount Vernon, only buildings with three to five units are defined as multi-family, while larger buildings (six and more units) are classified as “high density” and must contract directly with Waste Management for services.

Commercial Recycling Programs

Commercial recycling services are provided by several private companies, including Waste Management, Skagit River Steel, Tri-County Recycling and Lautenbach Industries. For commercial collections, Waste Management provides collection services for the same materials as residential collections. Waste Management also provides roll-off containers for cardboard, drywall, wood, metal, asphalt roofing, and other materials on a case-by-case basis.

Skagit River Steel collects from commercial and industrial sources using roll-off containers for new drywall, plastic “shrink wrap”, metals, cardboard and other paper, and essentially all of the other materials that they handle. Skagit River Steel will also pick up appliances.

Tri-County Recycling provides containers and collection services for cardboard, mixed waste paper, cans and other materials.

Lautenbach Industries provides collection services for construction and demolition debris (C&D), which is taken to their facility on Ball Road for processing.

Other private collection activities in Skagit County include one or more paper shredding services for high grade papers; collection of various oils, oil filters and antifreeze; and several companies that collect appliances and other metals.

State law requires a program for monitoring commercial activities, although Federal law prevents any control over these activities. In Skagit County, this monitoring is conducted by the Recycling and Waste Reduction Educator, who periodically collects information on services offered by the private sector and cities in order to help promote those. This monitoring should be continued and any problems detected should be reported to the SWAC.

Other Programs

The Adopt-a-Road groups and litter cleanup crews endeavor to recycle a portion of the materials they pick up, as time and the condition of the materials (bottles, cans and metals) permit.

Other materials recycled in Skagit County by private companies, either as a special collection service or through drop-off centers in and near the County, include

textiles, oils, grease, tires, printer cartridges, and x-ray film. Current information on these services is available from County brochures or at Ecology's website (the 1-800-RECYCLE website).

Recycling Markets

State regulations (RCW 70.95.090(7)(c)) require "a description of markets for recyclables," hence a description of the markets for recyclable materials is provided below. This is intended to be only a brief report of current conditions, and it should be noted that market conditions for recyclables can undergo substantial changes in a short amount of time.

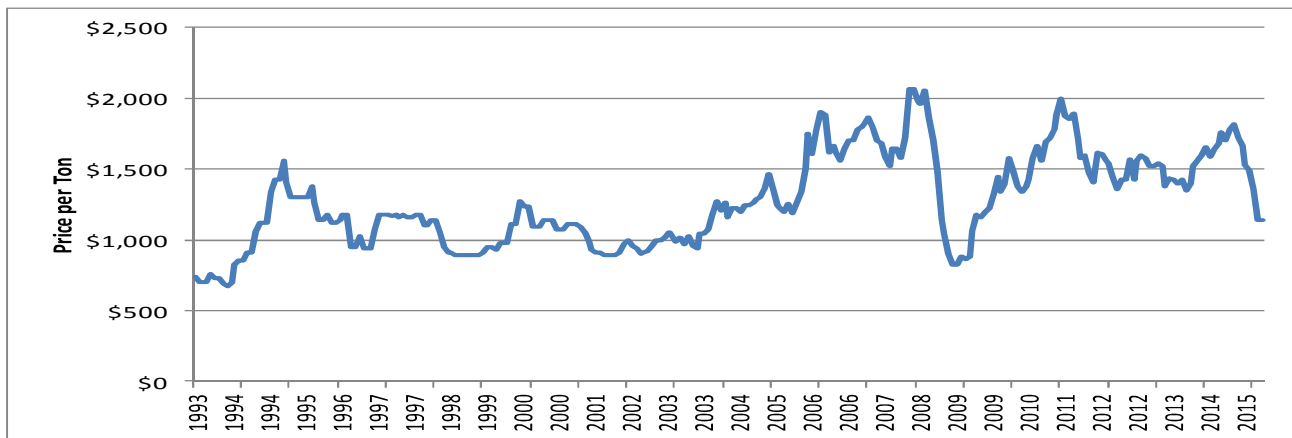
Market demand and prices for recyclables have fluctuated significantly over the past several years, just as prices for all commodities fluctuate with demand and other factors. Some recyclable materials have seasonal cycles in supply and demand, but all materials exhibit long-term trends with the possibility of sudden price spikes or dips. In some cases, long-term contracts with price floors can help moderate the swings in market revenues, but this isn't possible for all materials. Figures 4-1, 4-2, and 4-3 show how the prices for aluminum cans and other materials collected from residential sources in the Pacific Northwest have fluctuated over the past 20 years. As can be seen in the figures, market prices for most materials dipped from 2008 to 2009 due to the slump in demand caused by the recession. Prices for most of the metals recovered after this period and led to better-than-average metal recycling tonnages (see Table 2-6), but both prices and tonnages have dropped off in the past few years, and recently have dropped to 2008-2009 levels.

Urban-Rural Designation

State planning guidelines require that counties develop clear criteria for designating areas as urban or rural for the purpose of providing solid waste and recycling services. The urban-rural designations are the basis for determining the level of service that should be provided for recycling and other solid waste programs. For example, State law (RCW 70.95.090(7)(b)(i)) requires that recyclables be collected from homes and apartments in urban areas (although exceptions to this requirement can be granted if based on viable alternatives and other criteria), whereas drop-off centers and other methods can be used in rural areas.

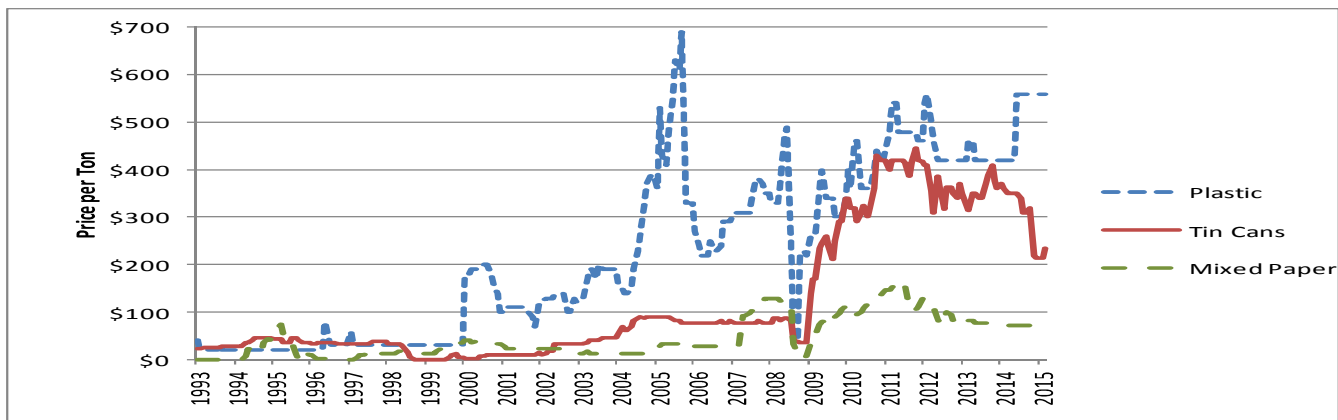
In this case, the Skagit County Comprehensive Plan provides an up-to-date basis for the determination of urban-rural areas (although distance from recycling facilities and other operations is also a factor for recycling programs in the upriver areas), and so any future changes in the Comprehensive Plan are considered to be adopted by reference in this SWMP. Recycling and other services may need to be implemented or adjusted based on these changes and this should be accomplished within 120 days of the adoption of changes to the Comprehensive Plan. The responsible party for implementing changes in recycling or other services will depend on the hauler or city that is responsible for that service in the affected area.

Figure 4-1
Price Paid for Baled Aluminum Cans



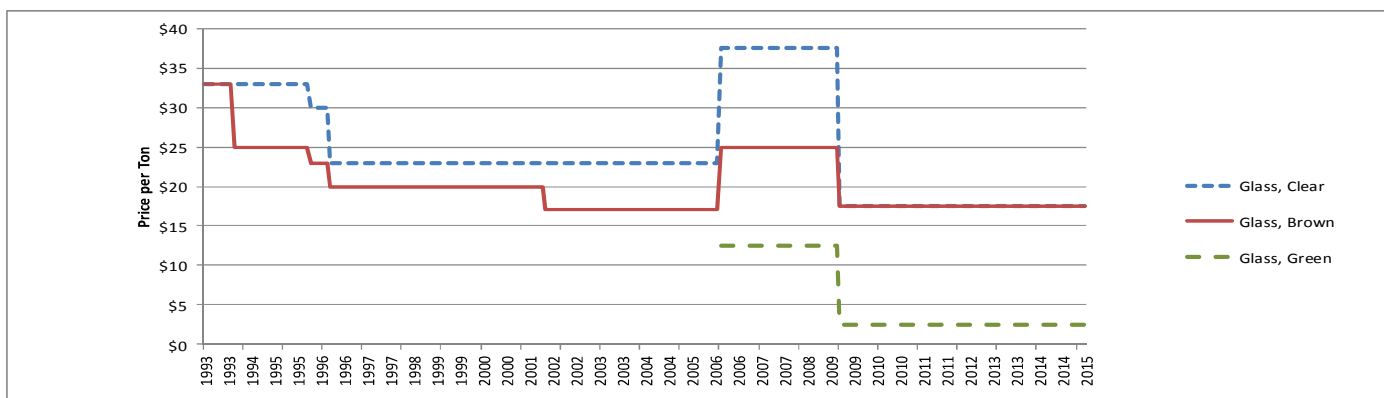
Source: Seattle Public Utilities website (original data source: American Metal Markets).

Figure 4-2
Prices Paid for Select Recyclable Materials



Source: Seattle Public Utilities website (original data sources are Mill Trade Journal's Recycling Markets, Pulp and Paper Week, Recycling Times, and Waste News).

Figure 4-3
Prices Paid for Glass



Source: Seattle Public Utilities website.

All areas currently identified as urban by Skagit County also have recycling and organics collection services available except for the towns of Concrete, Hamilton and Lyman, and a few small urban growth areas (UGAs) adjacent to (but outside the city limits of) Sedro-Woolley. It is anticipated that the UGA areas will be eventually incorporated by Sedro-Woolley.

4.3. DESIGNATION OF RECYCLABLE MATERIALS

The designation of recyclable materials has taken on more importance with the adoption of Chapter 173-350 WAC, which defines recyclable materials as being those materials “that are identified as recyclable materials pursuant to a local comprehensive solid waste plan.” Since market conditions for recyclables can change drastically in a short amount of time, the list of designated materials is also accompanied by a description of the process for revising that list.

Table 4-1 shows the list of designated recyclable materials. This list is not intended to create a requirement that every recycling program in Skagit County collect every designated material. Instead, the intent is that through a combination of programs, residents and businesses should have an opportunity to recycle all of the designated materials through at least one program. In other words, if plastics are on the designated materials list, then there must be at least one program in Skagit County that collects plastics. The list has been grouped to indicate the degree of access that residents and businesses should have for these materials (in other words, greater access should be available for the higher-priority materials). It should also be noted that this list is considered the minimum set of materials to be recycled, and that it is not intended to discourage the recycling of additional types of materials.

The list of “designated recyclable materials” shown in Table 4-2 should be used for guidance as to the materials to be recycled in the future. This list is based on existing conditions (collection programs and markets), and future markets and technologies may warrant changes in this list. The following conditions are grounds for additions or deletions to the list of designated materials:

- The market price for an existing material becomes so low that it is no longer feasible to collect, process and/or ship it to markets.
- Local markets and/or brokers expand their list of acceptable items based on new uses for materials or technologies that increase demand.
- New local or regional processing or demand for a particular material develops.
- No market can be found for an existing recyclable material, causing the material to be stockpiled with no apparent solution in the near future.
- The potential for increased or decreased amounts of diversion.
- Legislative mandate.
- Other conditions not anticipated at this time.

Table 4-1. List of Designated Recyclable Materials	
Priority Level	Material
Group 1 Materials: Materials that should be collected by curbside, multi-family and commercial recycling programs, or by the mixed organics collection programs, in Skagit County.	<u>Recyclables</u> Clean paper and cardboard Clean glass bottles and jars Aluminum and tin cans, scrap metal, aluminum food containers, and empty/non-hazardous aerosol cans Plastic bottles, jars and tubs <u>Mixed Organics</u> Yard debris Food scraps Food-soiled paper
Group 2 Materials: Materials that should be collected at drop-off and buy-back locations or through other collection services.	Edible food (donated) Cell phones Electronics (e-waste) Clothing and textiles Oil and oil filters Antifreeze Asphalt and concrete Batteries (all types) All metals, inc. appliances Plastic bags Rigid plastics Reusable building materials Tires Wood
Group 3 Materials: Materials that should be recycled if markets are available.	Carpet Drywall Polystyrene Other plastics Roofing materials Mixed construction and demolition Shrink wrap, building wrap, and other film plastics

Any proposed changes in the list of designated materials should be submitted to the SWAC for their discussion and approval. With the concurrence of the SWAC, followed by approval by the Solid Waste System Governance Board (SWSGB), minor changes in the list could be adopted without formally amending the SWMP. Thus,

minor changes should be able to be addressed in 60 to 75 days at most, depending on the schedule of SWAC meetings at the time of the proposed change. Should the SWAC or the SWSGB conclude that the proposed change is a “major change” (what constitutes a “major change” is expected to be self-evident at the time, although criteria such as the length of the discussion and/or inability to achieve consensus could be used as indicators of what is a “major change”), then an amendment to the SWMP would be required (a process that could take 120 days or longer to complete).

4.4. PLANNING ISSUES FOR RECYCLING

Skagit County is currently well-served by a variety of recycling programs, but several improvements and issues could be addressed by this Plan. The most significant of these are noted below.

Climate Action Plan

The Skagit County Climate Action Plan adopted in 2010 made a number of recommendations regarding waste reduction and recycling, including:

- provide additional incentives for recycling through rates and education.
- conduct a waste characterization study to better inform recycling efforts.
- implement efficient recycling and waste reduction at all County facilities.
- provide additional recycling opportunities in East county.
- support recycling at public events.
- reduce C&D disposal amounts through education and by eliminating permit fees for deconstruction projects.

Collection Frequency

The collection frequency for the residential curbside recycling programs is currently every-other-week in most areas and weekly in Anacortes. Studies have repeatedly shown that more frequent collections will lead to more diversion. Some communities have gone so far as to make garbage collection every-other-week and recycling weekly to encourage more recycling.

Glass in Commingled Mix

Glass is currently included in the curbside recycling program and is mixed with other materials. When mixed with other materials, glass both contaminates the other materials and the glass itself is difficult to recycle.

C&D Recycling

Additional collection and recycling of C&D wastes could have a significant impact in reducing the County’s waste stream. Waste composition data shown in Table 2.8

indicates that 19% of the County's waste stream may be wood and construction debris. It appears that more could be done to promote recycling of this waste.

4.5. ALTERNATIVE RECYCLING STRATEGIES

The following alternatives were considered for new or expanded recycling activities. The listing of an alternative in this section does not mean that it is considered feasible or desirable, nor that is recommended (see Section 4.7 for the recommendations).

Alternative A – Increase Curbside Recycling to Weekly Collection

Studies have repeatedly shown that more frequent collection of recyclables leads to increased tonnages collected. Several cities have recently gone so far as to make recycling collections weekly and changed garbage collection to every-other-week (although a recent proposal by Seattle to do this failed due to questions about costs versus service levels). In general, weekly recycling collections are not double the cost of every-other-week collections, but the additional cost is in the range of 30 to 50% more than every-other-week collections. Weekly collection programs can be expected to collect about 30 to 40% additional tonnages over every-other-week collections. It should be noted that the additional tonnages more than make up for the greenhouse gas emissions related to the additional fuel consumed to run the route twice as often, since every additional ton of recyclables carries with it a huge benefit in greenhouse gas reductions.

Alternative B – Switch to Dual Stream Collection to Collect Glass Separately

Glass is a serious problem when mixed with other materials for recycling. Broken glass contaminates the other materials, especially paper and plastic, and makes it more difficult to recycle those materials. The glass that is carried along with the other materials causes problems with the processing equipment for paper and plastic and does not get recycled but ends up in landfills near the processing plants for the other materials. The glass that is recovered from a curbside mixture is also difficult to recycle because it consists of mixed colors and is also highly contaminated by other materials.

Alternative C – Minimum Service Level to Include Curbside Recycling

Through a service level ordinance, the County could require that curbside recycling services be included in the minimum service provided to residential garbage customers. Several counties (including Snohomish, Spokane and Thurston Counties) take this approach. More recycling program subscribers would lead to a lower per-household cost for the recycling service. Although many households would see this as a price increase over the current cost for garbage service alone, most of these households would also likely be able to reduce their garbage service level by choosing a smaller can and actually save money.

A service level ordinance could also require regular reports and other data which would lead to significant improvements in the ability of Skagit County to monitor progress toward recycling goals. A service level ordinance could require quarterly reports on the numbers of residential and commercial recycling and organics customers in the certificated areas and in the City of Burlington, and the same information could be requested from the cities that conduct their own waste collection.

Alternative D – County to Contract for Curbside Recycling in Unincorporated Areas

The County could consider contracting for curbside recycling in the unincorporated areas. Clark County does this currently. Contracting for recycling services in the unincorporated areas is one of the few collection activities allowed by Washington State law for a county (per RCW 36.58.040). Taking this approach would require working out several important details, including financing, processing systems, frequency of collection and other collection methods.

Alternative E – Mandatory Recycling for C&D Wastes

Skagit County could adopt recycling requirements for construction and demolition wastes that are similar to the approach used by Seattle and King County. Seattle rules currently require that construction companies either recycle at construction sites or deliver C&D to facilities that are certified as meeting Seattle’s standards for recovering regulated materials. The processing facilities must recover specific materials, so that their residuals do not contain more than 10% of asphalt paving, bricks, concrete, metal, new gypsum board and wood over 6 inches, and cardboard over 8 inches.

Alternative F – Support New Product Stewardship Programs

Product stewardship is a concept designed to alleviate the burden of end-of-life product management on local governments. Product stewardship programs, or “extended producer responsibility” (EPR), typically address a specific type of product and provide an alternative collection or disposal system. One of the principles that this approach is based on is that the manufacturers of a product should bear the cost of collecting and recycling (or disposing of) that product, and that this will create an incentive for them to reduce the weight and/or toxicity of their products. Retailers, if they are involved in a program, would have an incentive to carry products that are easier (and so less expensive) to collect and recycle.

Developing new product stewardship programs is beyond the scope of a county, but Skagit County could participate in such programs developed by others. Any new product stewardship proposals at the state or federal level could be evaluated and supported as appropriate to the County’s interests. The cost for implementing this alternative would primarily be a small amount of staff time, unless the County would be actively involved in a new collection program (which may require more

time and expense, although in theory any expenses for an EPR program would be covered by manufacturers).

Alternative G – Disposal Bans for Specific Materials

Disposal bans have proven effective in some cases, although there would need to be an alternative collection or handling system available for the banned material. Hence, a phased-in approach would be best, providing enough advance notice to allow alternative handling systems to be developed.

Alternative H – Mandatory Commercial Recycling

Mandatory requirements for commercial recycling could take a number of different approaches, including requirements to recycle specific materials (such as cardboard), to recycle the primary materials generated by the business, a requirement for all businesses to subscribe to commingled recycling, or other approaches. Businesses often generate significant amounts of relatively clean recyclables, but resist recycling programs for a variety of reasons. Requiring all business to recycle would create a “level playing field” that would not create a competitive advantage or disadvantage. On the other hand, such requirements would not be well received by the businesses and would be politically difficult to implement.

4.6. EVALUATION OF RECYCLING ALTERNATIVES

Review of Rating Criteria

The above alternatives can be evaluated and rated according to several criteria and then a decision can be made as to whether to pursue it or not based on the overall rating. These criteria include:

- consistency with the planning goals shown at the beginning of this SWMP and with the goal of diverting more materials from disposal.
- the degree to which an alternative is considered to be technically and politically feasible to implement.
- the cost-effectiveness of an alternative can be assessed based on the presumed total costs of the activity versus its potential benefits and relative to other alternatives or to the existing practices.
- the potential for additional diversion of materials from the waste disposal system (as a percentage of the waste stream).

Consistency with Solid Waste Planning Goals: All of these alternatives support the goal of encouraging recycling as a fundamental management strategy, and support the goal for the recycling rate. Alternative D, a county contract for curbside recycling, is not consistent with some of the planning goals, and so is rated low for

this criteria. Alternative G, disposal bans for specific materials, is the least directly associated to increases in recycling and so is only rated as medium for this criteria.

Feasibility: In judging the alternatives for technical and political feasibility, most of the alternatives are technically feasible but some may be controversial. Alternative A, increasing curbside frequency to weekly, would be somewhat controversial due to the increased costs that would result. Alternative B, switching to a dual stream system, would be very difficult to implement due to the difficulty in changing people's existing practices. Alternative C, requiring that recycling be included with garbage service, would likely cause complaints initially, but it is expected that these would diminish quickly as people saw the value in the service. Alternative D, a county contract for curbside recycling, could be more controversial, depending in part on how this was actually implemented, and would also be technically challenging to implement. Alternative E, requiring recycling for C&D wastes, would be controversial for those in the construction industry and for the general public if applied to them. Alternative F, support for future product stewardship programs, could be controversial but the support could be evaluated on a case-by-case basis. Alternative G, disposal bans for specific materials, and Alternative H, mandatory commercial recycling, would be politically challenging.

Cost Effectiveness: Alternative A, increasing curbside to weekly, should be neutral in cost-effectiveness, based on information from other areas that show that this approach would increase both costs and tonnages collected by about 50%. Alternative B, switching to a dual stream system, would likely not be very cost-effective, based on the significant additional expenses for new containers and extensive outreach that would be needed to separately collect a low-value material (glass). Alternative C, requiring that recycling be included with garbage service, would be cost-effective in the sense that an increased customer base for curbside recycling would allow this service to be provided more cost-effectively. Alternative D, a county contract for curbside recycling, may not be as cost-effective if this approach led to more overhead expenses for administering the program. Alternative E, requiring recycling for C&D wastes, should be cost-effective compared to disposal costs. Alternative F, support for future product stewardship programs, should also be cost-effective in that this type of program typically shifts costs away from the public sector and to the manufacturers of specific products. Alternatives G, disposal bans, and H, mandatory commercial recycling, would be cost-effective in the sense that costs would be shifted to the generators of the waste, but the alternatives may not be cost-effective for the generators.

Diversion Potential: Several of the alternatives can be rated high for diversion potential based on the idea that the alternative would lead to a substantially greater amount of materials collected for recycling. Only one alternative (Alternative B, switching to a dual stream system) is rated low based on the idea that no additional

tonnages would be collected for recycling (in theory, the same amount of glass would simply be placed into a separate container).

Rating of Alternatives

The evaluation of the alternatives is summarized in the following table.

Table 4-2. Ratings for the Recycling Alternatives					
Alternative	Consistency with Goals	Feasibility	Cost-Effective-ness	Diversion Potential	Overall Rating
A, Weekly curbside recycling	H	M	M	H	M
B, Collect glass separately	H	L	L	L	L
C, Minimum service level	H	M	H	H	H
D, County contract for curbside recycling in uninc. areas	L	L	M	H	L
E, Require C&D recycling	H	M	H	H	H
F, Support product stewardship programs	H	M	H	H	H
G, Disposal bans	M	L	L-M	M-H	M
H, Mandatory commercial recycling	H	L	L-M	H	M

Rating Scores: H – High, M – Medium, L – Low

4.7 RECYCLING RECOMMENDATIONS

The following recommendations are being made for recycling programs.

High-Priority Recommendations

- R1) Skagit County's goal for recycling and composting is 65%.
- R2) Skagit County will adopt a minimum service level ordinance requiring all waste collection subscribers to also receive curbside recycling service.
- R3) Skagit County will consider adopting requirements for C&D recycling.
- R4) Skagit County will support product stewardship programs as appropriate.

Medium-Priority Recommendations

- R5) Consideration will be given to increasing curbside recycling frequency to weekly in all areas.
- R6) Disposal bans will be considered for specific materials where alternative handling methods provide improved management of these materials.
- R7) Washington State should enact a bottle bill to divert glass away from curbside recycling programs.

Low-Priority Recommendations

- R8) Mandatory commercial recycling should be examined as a possible program to be implemented county-wide.

Overview of Implementation Responsibilities, Costs and Schedule

The lead agency responsible for implementing most of these recommendations will be Skagit County, with assistance from the Cities as appropriate. Recommendation R5 will need to be implemented by both the County and the four cities with contracts for curbside recycling. Recommendation R7 will need to be implemented by the State.

The costs to Skagit County for these recommendations will consist primarily of staff time. Some of the recommendations will also create costs for subscribers and waste generators (R2, R3, R5 and R8). The cost for Recommendation R6 would include a campaign to inform the public of any bans and possibly also costs for enforcement activities. The cost for Recommendation R7 may be significant and would be paid by manufacturers and retailers.

The implementation of most of these recommendations should begin next year (2018), but implementation of many of the recommendations will be contingent upon the hiring of an additional staff person (a Recycling Coordinator, see Chapter 9 for more details). Washington State should enact a bottle bill for glass as soon as possible (implementing this by 2020 is likely the soonest possible schedule).

More details on the implementation of these and other recommendations are shown in the Implementation Plan (see Chapter 10).

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ORGANICS

5.1. DEFINITIONS AND GOALS FOR ORGANICS

Definitions for Organic Materials

In this Solid Waste Management Plan (SWMP), the term “organics” is intended to include compostable materials such as yard debris, food waste, and compostable paper. Other compostable materials, such as compostable plastics, shredded paper and clean wood may also be included depending on the collection program and acceptance policies for processing facilities. Some programs in Skagit County collect a mixture of yard debris, food waste, and food-soiled paper, and this is referred to as “mixed organics” in this SWMP.

Yard debris is defined to include materials such as lawn clippings, leaves, weeds, vegetable garden debris, branches (up to seven inches in diameter) and brush. Because branches and brush are included in the definition of yard debris, programs discussed in this chapter and figures for “composting” include chipping and other processing of brush, Christmas trees and similar materials. Backyard composting means a small-scale activity performed by homeowners or others on their own property, using yard debris that they have generated on that property. Some types of food waste, primarily fruit and vegetable scraps, can also be managed through backyard composting or through the use of worm bins (“vermicomposting”). By definition, backyard composting and vermicomposting are considered to be a form of waste reduction and so are addressed in Chapter 3 of this SWMP.

Food waste can be defined in a number of ways. For the purposes of this SWMP, food waste is generally intended to include those materials acceptable in the curbside collection program, which are all types of food waste (including dairy and meat products), food-soiled paper (such as paper towels and pizza boxes), shredded paper, and some types of compostable paper.

Composting can be defined as the controlled biological decomposition of organic materials to produce a beneficial product (compost). Compost has a number of applications, but as a soil amendment it provides organic matter and nutrients, loosens soils, and helps retain moisture.

Goal for Diverting Organics

Organic materials collected for composting are intended to count towards Skagit County’s recycling goal of 65% (see Section 4.1).

The programs in Skagit County are intended to be based on a hierarchy of management methods for organics. Washington State law (RCW 70.95.010 (8)) provides direction on the preferred management methods for yard debris. Recent work by the U.S. EPA provides a hierarchy specifically for food waste. The hierarchy for food waste differs somewhat from other organics due to the fact that a portion of the food waste could be recovered to feed to humans and animals, but otherwise both are similar in that each begins with waste prevention as the most desirable management method and ends with landfilling as the least preferred option. Table 5-1 shows specific options for managing yard waste and other organics and options for food waste, in order of preference from waste prevention methods to disposal.

Table 5-1. Hierarchy of Preferred Management Methods		
Management Method (in order of highest to lowest preference)	Yard Debris, Wood, Compostable Paper, Other Compostables	Food Waste¹
Waste Prevention	Product Substitution ² On-Site Composting GrassCycling	Source Reduction Feed Hungry People Feed Animals
Composting and Recycling	Collection and Processing into Mulch (wood waste) Collection and Processing into Compost	Collection and Processing into Compost and Other Products Rendering
Energy Recovery	Anaerobic Digestion Fuel (wood waste)	Anaerobic Digestion Biodiesel (grease)
Landfilling and Incineration without Energy Recovery	Disposal (waste export)	Disposal (waste export)

- Notes:
1. The hierarchy shown above for food waste is based on EPA's "Food Recovery Hierarchy," but with energy recovery methods downgraded below composting.
 2. Product substitution in this case includes the use of durable products (ceramic plates, cloth napkins, etc.) in place of disposable products (such as paper plates and napkins).

This chapter addresses the second step, collection and processing of organics into compost and for other purposes. Waste prevention methods are addressed in Chapter 3, and the last two steps (energy recovery and landfilling) are addressed in Chapter 7 (to the extent that these are addressed in this SWMP).

5.2. EXISTING ORGANICS PROGRAMS

Numerous activities are currently being conducted in Skagit County for collecting and processing organics. These are discussed below according to the type of program.

Several cities in Skagit County (including Anacortes and Mount Vernon) have banned yard debris disposal, and encourage the use of other options instead. Burning of yard debris has also been banned by State rules, as implemented by the Northwest Clean Air Agency. Burning of residential yard debris and landclearing debris is not allowed in all eight cities and towns (including adjacent urban growth areas), as well as in the areas of Bay View and March Point.

Drop-Off Programs

Four cities and towns operate drop-off programs for yard debris. Three of these are year-round programs that are supported by charges for this service. These three (La Conner, Mount Vernon and Sedro-Woolley) have a system of pre-paid punch cards that are used for this. The Mount Vernon and Sedro-Woolley sites accept pumpkins and Christmas trees at no charge.

The City of Anacortes accepts yard debris for free at their Public Works Operations facility on two Saturdays each year (once in the spring and once in the fall). This is done to accommodate residents who generate larger materials that do not fit into the organics collection carts (tree limbs, branches, shrubs, large amounts of leaves, etc.). In 2014, 160 cubic yards were collected on these two days. Christmas trees are also collected for free each year by volunteers working with the Parks Department.

The City of Mount Vernon's drop-off site for yard debris is at their Public Works shop and is open to city residents only. This site is open five days per week in March through October, and three days per week for November through February. This site accepts yard debris, clean wood, and shredded paper. Organic materials are brought to Skagit Soils for composting, and the wood is brought to Lautenbach Industries. In 2014, the drop-off site collected 1,796 tons of organics and 421 tons of wood. The sales of punch cards generated \$22,159 in revenue in 2014.

The City of Sedro-Woolley accepts yard debris at their recycling center. Customers are encouraged to keep grass clippings separate from brush, as these materials are marketed separately.

The Town of La Conner accepts yard debris at their wastewater treatment plant and uses it in their biosolids composting process. The resulting compost is sold for \$5 to \$13 per cubic yard, depending on the amount sold and whether it is screened or not. Small amounts of compost are provided free to people who can load it themselves.

Skagit County collects yard debris at the Transfer and Recycling Station. Yard debris separated from solid waste loads is directed to a designated area of the tipping floor. This material is currently being delivered to Skagit Soils for composting.

A number of private companies accept yard debris and woody materials for composting and grinding. The two largest private composting operations in Skagit County are Skagit Soils near Mount Vernon and Dykstra Farms near Burlington. Dykstra Farms takes in a variety of organics (such as seafood processing waste and shredded paper) and uses these materials to compost their dairy manure. Skagit Soils is open to the public and charges a tipping fee for people to drop off yard debris. Much of the material composted by Skagit Soils is delivered by Waste Management (mixed organics from curbside and commercial routes) and others such as the City of Mount Vernon.

Several companies in Skagit County accept woody debris for grinding or grind materials they generate to produce mulch and other products.

Lautenbach Industries accepts incidental amounts of yard debris, but they generally refer people with large loads to Skagit Soils (which is located nearby) or other facilities.

Collection Programs

The Cities of Anacortes, Burlington, and Mount Vernon have curbside collection for mixed organics through contracts with Waste Management. Current charges for these services are shown in Table 5-2. As of May 2015, the charge for this service was \$8.95 per month in Burlington (and \$4.00 per extra can or bundle), \$11.24 per month in Mount Vernon (plus \$3.48 for extra 32-gallon cans or bundles). In both of these cities, service is provided using 96-gallon carts that are emptied weekly March through November and every-other-week in December through February. As of July 2015, the charge for this service in Anacortes was \$11.00 per month for a 96-gallon cart (plus \$11.00 for extra 32-gallon cans or bundles) emptied weekly year-round. As of September 1, 2015, city crews began collecting yard waste in Sedro-Woolley.

Table 5-2. Monthly Charges for Organics Collections		
City	Monthly Charge	Extra Cans or Bundles
Anacortes	\$11.00	\$11.00
Burlington	\$8.95	\$4.00
Mount Vernon	\$11.24	\$3.48
Sedro-Woolley	\$8.94	NA

Current as of July 2015.

The organics collection program in Anacortes diverted 2,483 tons in 2014. In Mount Vernon, the collection program diverted 1,606 tons of material from 2,255 residential customers (with a total of 5,933 garbage customers, the organics subscription rate in Mount Vernon was 38% in 2014). In Sedro-Woolley, there were 704 tons of organics collected from 820 residential subscribers in 2014 (with a total of 3,212 residential garbage subscribers, the subscription rate was 26% in Sedro-Woolley).

Waste Management also provides curbside collection of mixed organics in the unincorporated area west of Highway 9, excluding Guemes Island. As of July 2015, the charge for this service was \$9.65 per month for a 96-gallon cart (\$4.30 for extra 32-gallon cans or bundles) emptied weekly March through November and once-monthly for December through February. There were 259 mixed organics customers in the unincorporated area in 2011.

Businesses in Skagit County can sign up for organics collection services. Several businesses are subscribing, but an exact number is unknown.

Lawn maintenance and landscaping services, including land clearing services, also provide collection services for organics in a sense.

Processing and Market Capacity

Processing capacity in Skagit County is sufficient to handle the organics currently being collected. Markets are reported to be adequate as well, as long as the quality of the compost is maintained.

The primary processor of mixed organics in Skagit County, Skagit Soils, uses a static windrow system. Incoming materials are ground up soon after being delivered, and are mixed in the grinder with other materials as needed to create the proper mix of materials for composting purposes. This mixture is placed into windrows (long piles) and then turned five times over the following two weeks. After that, the composted material is moved to a curing pile for a few months, and then screened and sold. As part of the screening process, a vacuum system removes most (but not all) of the plastic contamination and a magnet removes any ferrous metals.

5.3. PLANNING ISSUES FOR ORGANICS

Skagit County is currently served by a variety of organics programs, and a few potential improvements and issues are noted below.

Contamination in Mixed Organics

The primary processing facility in Skagit County, Skagit Soils, reports that excessive amounts of contamination are present in some of the loads of mixed organics and

that this seems to be the result of commercial food waste customers that are not adhering to the rules regarding acceptable materials.

Problematic Materials in Mixed Organics

The primary processing facility in Skagit County, Skagit Soils, reports that some of the materials considered acceptable in the mixed organics stream, specifically compostable plastic bags, plastic serveware and other types of compostable plastics, are not breaking down in their system and hence are contaminating the end products.

Data for Evaluating and Monitoring Organics Programs

Better data is needed on the quantity and quality of organics collected by various programs in the County. It is impossible to evaluate the performance of these programs without this information.

Promotion for Organics Collection Program

Information about the mixed organics collection program is difficult to find on some of the city's websites. Promotional efforts for the mixed organics programs in the unincorporated areas could also be improved.

Climate Action Plan

The Climate Action Plan adopted in 2010 made a few recommendations regarding organics, including:

- divert food waste to compost or anaerobic digestion.
- ban yard debris from garbage.

5.4. ALTERNATIVE ORGANICS STRATEGIES

The following alternatives were considered for new or expanded organics activities. The listing of an alternative in this section does not mean that it is considered feasible or desirable, nor that it is recommended (see Section 5.6 for the recommendations). It should also be noted that the possibility of a ban on yard waste disposal is discussed in Chapter 3 as a potential waste reduction method (see Section 3.4), and the possibility of using a service level ordinance to collect better data on organics and recycling programs is addressed in Chapter 4 (see Section 4.5).

Alternative A – Institute Practice of Inspecting and Potentially Rejecting Commercial Mixed Organics Setouts

Waste Management could initiate a practice of inspecting containers of commercial organics, at least for problematic customers, before emptying those into the collection truck. Containers could be not emptied if deemed too contaminated, and instead the container could be tagged and emptied as waste at a higher cost to the customer

(thus providing incentive for the customer to do better in separating the acceptable and unacceptable materials).

Alternative B – Reduce the Types of Acceptable Materials for Mixed Organics

Plastic bags and some other types of “compostable” plastics are not breaking down in the composting process at Skagit Soils. These materials could be removed from the list of acceptable materials for the organics collection program and participants could be discouraged from including compostable plastics in the mixed organics.

Alternative C – More Promotion of the Mixed Organics Collection Program

More promotion could be conducted for the mixed organics to encourage residents and businesses to sign up for this service and to inform them of the materials that are acceptable for it. An increased emphasis of the promotion for this service could be directed at reducing the amount of contamination by non-compostable materials. This information could be distributed to existing customers, placed more prominently on city websites, and promoted in other ways as available.

Alternative D – Encourage Markets for Compost

Skagit County and the cities and towns could take steps to encourage markets for locally-produced compost by encouraging the use of compost by all departments in public projects. Planning departments could be encouraged to recommend compost in landscaping and erosion control projects, using brochures and other information developed by Skagit County. Private companies could also be encouraged to use compost through public outreach and building specifications.

5.5. EVALUATION OF ORGANICS ALTERNATIVES

Review of Rating Criteria

The above alternatives can be evaluated and rated according to several criteria and a decision made as to whether to pursue it or not based on the overall rating for each. These criteria include:

- consistency with the hierarchies shown at the beginning of this chapter and with the goal of diverting more materials from disposal.
- the degree to which an alternative is considered to be technically and politically feasible to implement.
- the cost-effectiveness of an alternative can be assessed based on the presumed total costs of the activity versus its potential benefits and relative to other alternatives or to the existing practices.
- the potential for additional diversion of materials from the waste disposal system (as a percentage of the waste stream).

Consistency with Solid Waste Planning Goals: It could be argued that Alternatives A, rejecting contaminated commercial setouts, and B, reducing the types of acceptable materials for the mixed organics programs, will lead to less material being diverted from the waste stream and thus are not consistent with the idea of achieving a higher recycling rate, but in actuality these alternatives will reduce the amounts of contaminants that should not be counted as being diverted anyways. Alternatives C, more promotion of mixed organics collection services, and D, encouraging markets, are very consistent with the hierarchy and planning goals.

Feasibility: In judging the alternatives for technical and political feasibility, Alternatives A, rejecting contaminated commercial setouts, and C, increasing promotion for the mixed organics program, should be highly feasible. Although Alternative C could lead to additional demands on staff time and other costs, much of this alternative could be accomplished by making use of existing tools (such as websites) and minimal investments in staff time. Alternative B, reducing the list of acceptable materials for the mixed organics programs, would be more challenging to implement, as this would require “re-training” participants that have been told that compostable plastics are acceptable. Alternative D, encouraging markets, may be difficult to implement due to the need to for additional staff (a new Recycling Coordinator) to implement these steps.

Cost Effectiveness: Alternative A, rejecting contaminated commercial setouts, should be highly cost-effective since this activity could eliminate contamination at the source. The cost-effectiveness for Alternative B, reducing the list of acceptable materials for the mixed organics programs, is uncertain because the cost of publicizing a change in the list of acceptable materials would need to be balanced against the cost of removing those contaminants during processing and the potential for higher market revenues. The cost-effectiveness for Alternative C, increasing promotion for the mixed organics program, should be high based on the assumption that the cost of this approach would be low and that it could potentially result in more tons of material being diverted. The cost-effectiveness of Alternative D, encouraging markets, is uncertain, but the use of compost has been demonstrated to be very cost-effective in many applications.

Diversion Potential: Alternatives A, rejecting contaminated commercial setouts, and B, reducing the list of acceptable materials for the mixed organics programs, are rated low with respect to diversion potential since these steps could reduce the amount of materials diverted to composting. Alternatives C, increasing promotion for the mixed organics program, and D, encouraging markets, should result in more tons of mixed organics being diverted.

Rating of Alternatives

The evaluation of the alternatives is summarized in the following table.

Table 5-3. Ratings for the Organics Alternatives

Alternative	Consistency with Goals	Feasibility	Cost-Effective-ness	Diversion Potential	Overall Rating
A, Reject contaminated commercial setouts	M	H	H	L	M
B, Reduce acceptable materials for mixed organics	M	M	M	L	M
C, More promotion for mixed organics	H	H	H	H	H
D, Encourage markets for compost	H	M	M	M	M

Rating Scores: H – High, M – Medium, L – Low

5.6. ORGANICS RECOMMENDATIONS

The following recommendations are being made for organics programs in Skagit County (see also Chapters 3 and 4).

High-Priority Recommendations

O1) More promotion must be conducted for the mixed organics collection services.

Medium-Priority Recommendations

O2) Contaminated commercial setouts should be rejected by the collection companies.

O3) Compostable plastics should not be collected in the mixed organics collection system.

O4) The cities, towns and county will promote the use of compost.

Overview of Implementation Responsibilities, Costs and Schedule

The lead agency responsible for Recommendations O1, O2 and O3 should be the organics collection companies or agencies (Waste Management and Sedro-Woolley). For Recommendation O4, the responsible agencies include Skagit County and the eight cities and towns, as well as associated agencies. Contingent on the hiring of a new Recycling Coordinator, additional steps should be taken to encourage the use of compost and mixed organics collection systems in the public bidding process. The County and Cities should also distribute brochures and other information with

building permits, and the County should take the lead on developing this information (again, contingent on the hiring of a new Recycling Coordinator).

The cost for Recommendation O1 will be up to \$50,000 and this would be primarily funded by Waste Management (but paid through collection service fees). The cost for Recommendations O2 and O3 will be minimal. The cost for Recommendation O4 will be up to \$25,000 for development and printing costs.

The implementation of these recommendations should begin in 2018.

More details on the implementation of these and other recommendations are shown in the Implementation Plan (see Chapter 10).

WASTE COLLECTION

6.1. BACKGROUND FOR WASTE COLLECTION

Introduction

This chapter addresses the solid waste collection system in Skagit County. The primary focus of this chapter is on the non-recycled portion of solid wastes.

Regulations Concerning Waste Collection

The Washington State authorities that govern collection activities are Ecology and the Washington Utilities and Transportation Commission (“UTC”). RCW 70.95.020 also assigns responsibilities to local government for solid waste handling while encouraging the use of private industry. The various laws that apply to solid waste collection companies include:

- **Chapter 81.77 RCW, Solid Waste Collection Companies:** This law establishes the State regulatory authority for solid waste collection companies and the procedures and standards with which they must comply.
- **Chapter 35.21 RCW, Cities and Towns:** This law provides cities and towns with the authority for solid waste and the procedures and standards with which they must comply. Per RCW 35.21.120, “A city or town may by ordinance provide for the establishment of a system or systems of solid waste handling for the entire city or town or for portions thereof. A city or town may provide for solid waste handling by or under the direction of officials and employees of the city or town or may award contracts for any service related to solid waste handling.”
- **Chapter 36.58 RCW, Solid Waste Disposal, and 36.58A RCW, Solid Waste Collection Districts:** Chapter 36.58A RCW authorizes counties to form a collection district that would enable the adoption of mandatory waste collection. Chapter 36.58 RCW primarily addresses disposal activities, including the ability to form a solid waste disposal district, but one section (RCW 36.58.045) authorizes counties to “impose a fee upon ... a solid waste collection company” to fund planning and administrative expenses that may be incurred by the county.
- **Chapter 480-70 WAC, Rules for Solid Waste and/or Refuse Collection Companies:** This chapter establishes standards for solid waste collection companies, including public safety, fair practices, reasonable charges, consumer protection, compliance, and other factors.

There are four forms of collection services that are allowed by State law in cities:

- **Certificated:** With this collection method, cities are not actively involved in the management of garbage collection. Instead, the UTC-certificated hauler provides

service under UTC regulation. There are four towns in Skagit County that use this approach (Concrete, Hamilton, La Conner and Lyman).

- **Municipal:** This approach utilizes municipal employees and equipment to collect waste. There are three cities in Skagit County that use this approach (Anacortes, Mount Vernon and Sedro-Woolley).
- **Contract:** The contract approach provides cities and towns with a great deal of control over the services and rates provided in their jurisdiction. There is one city in Skagit County (Burlington) that uses this approach.
- **Licensed collection:** This method applies to municipalities that require private collectors to have both a city-issued license as well as a UTC certificate. This approach gives the municipality limited control over collection services. No cities in Skagit County currently use this approach.

Cities can also attach a utility tax to the waste collection services in their jurisdiction, and this option is currently exercised by:

- the City of Anacortes assesses a 12% tax on solid waste charges assessed by the city,
- the Town of Hamilton assesses a 6.38% utility tax on solid waste services in the town,
- the Town of La Conner assesses a 3.0% utility tax on solid waste services in the town,
- the City of Sedro-Woolley assesses an 8.1% utility tax on solid waste services in the city, and
- the Swinomish Reservation assesses a 3.0% utility tax on solid waste services provided within their reservation.

Local Regulations

In addition to the utility tax, a number of the cities and towns in Skagit County have local codes addressing the requirements to have garbage service, to keep properties in a clean and orderly fashion, and related concerns. A few of the cities have also adopted disposal bans for yard waste.

County ordinances addressing waste collection include the “flow control ordinance” (Chapter 12.18 of the County Code), which requires that solid wastes generated in Skagit County be delivered to one of the designated disposal facilities (which are defined to include the main transfer station, the Sauk and Clear Lake sites, and the MRW Facility). Exceptions are provided in Chapter 12.18 for source-separated materials delivered to a recycling or composting facility, and for a limited number of other cases. Chapter 12.17 of the County Code addresses the need for vehicles transporting solid wastes to secure their loads so as to prevent any part of the load from falling off of the vehicle while it is in motion. The interlocal agreements

between Skagit County and the cities also require that the cities bring or direct their solid wastes to the County system.

Goals for the Waste Collection System

A number of the goals for this SWMP are applicable to waste collection:

- maintain and improve a long-term stable solid waste management system.
- create efficient service levels with respect to cost and environmental protection.
- establish level-of-service standards for urban and rural areas.
- provide a basis for equitable allocation of costs among those benefitting from the services, subject to public health considerations.

6.2. EXISTING WASTE COLLECTION PROGRAMS

Three types of waste collection systems exist in Skagit County; municipal programs operated by three cities, a city that contracts for collection services, and waste collection services offered by private haulers throughout the rest of the county. In addition, residents and businesses have the option of hauling their own garbage (i.e., “self-haul”) to the transfer station or the two rural dropbox facilities.

Municipal Collection Services

Three of the cities (Anacortes, Mount Vernon and Sedro-Woolley) provide garbage collection services to their residents and businesses with their own equipment and personnel. These three cities have universal, or mandatory, garbage collection services. Rates charged for various service levels are shown in Table 6.1. Billing is performed by the cities, and includes a mandatory charge for recycling service.

In Mount Vernon and Sedro-Woolley, all solid wastes are required to be collected and transported by the city’s crews and equipment. This is also the case in Anacortes, except that in the past the City of Anacortes has not had the equipment to haul larger containers (roll-off containers). The City of Anacortes has recently purchased additional equipment for this and will be providing more of these services in the future.

In addition to the service levels shown in Table 6.1, the City of Anacortes has a pre-paid bag system for residents who have extra amounts of garbage. The bags are sold for \$4.00 each at local stores and City Hall, with the cost of collection included in the bag price. Commercial customers in Anacortes can also subscribe to a mini-can rate at the same charge as residential customers (\$7.00 per month) or can use up to five 32-gallon cans for service (at \$13.00 per can).

Table 6-1. Collection Rates in Skagit County									
Area	Residential Collection Rates ¹					Commercial Collection Rates ²			
	Mini-can (20 gallons)	1 can (32 or 35 gallons)	2 cans or a 64-gallon cart	Recycling	Mixed Organics	1 yard/wk	2 yards/wk	4 yards/wk	
Municipal Services									
Anacortes	\$18.50	\$25.43	\$50.86	Included (\$9.00)	\$11.00	\$109.82 (1.5 yd)	\$132.94	\$190.74 (3 yd)	
Mount Vernon	\$13.47	\$23.56	\$39.71	Inc. (\$3.40)	\$11.24	\$78.47	\$125.56	\$217.47	
Sedro-Woolley	\$11.50	\$19.40	\$26.93	Inc. (\$2.65)	\$8.94	\$83.06	\$109.82	\$215.39	
City Contract									
Burlington	\$10.94	\$14.24	\$20.13	Inc. (\$2.80)	\$9.11	\$60.87	\$96.93	\$178.51	
Waste Management Service Area									
Certificated Area ³	\$14.80	\$16.60	\$24.50	\$7.22 ⁴	\$9.65	\$76.26	\$117.86	\$202.78	

Notes: Rates shown are current as of July 1, 2015 and are subject to change. Rates shown include recycling (where required) and applicable taxes.

- 1) Residential collection rates refer to monthly charges for weekly pickup of the number of cans shown. All city utilities include a basic recycling charge as part of the utility service. In the areas served by Waste Management, recycling services and costs are optional (i.e., at the customer's request).
- 2) Commercial collection rates vary significantly depending on the size of the container and frequency of service. A few rates are shown in the above table to illustrate the range of rates associated with different waste volumes (all of these rates are based on permanent, not temporary, service for one pickup per week at the volume shown). Additional charges may apply for container rental, recycling services, access problems, overflow conditions and other factors.
- 3) Waste Management's certificated service area includes the towns of Concrete, Hamilton, La Conner and Lyman, and the unincorporated areas. Recycling and mixed organics collection services are available only west of Highway 9. Rates shown are for service using containers provided by Waste Management.
- 4) The recycling rate in the certificated area reflects a commodity credit of \$2.18 (effective July 1, 2015 through June 30, 2016).

Population densities (the number of people per acre) for the service areas are based on the 2010 Census results (OFM 2014) and land area figures for the year 2015:

	2014 Population	Land Area, acres	Density
Anacortes	16,190	9,939	1.63
Burlington	8,445	2,829	2.99
Mount Vernon	33,170	8,070	4.11
Sedro-Woolley	10,610	2,438	4.35
Remainder of County	51,085	1,084,690	0.05
Totals	119,500	1,107,970	0.11

The City of Mount Vernon provides a senior discount for the smaller garbage can sizes. For the mini-can (20-gallon can), the discount is 50% of the regular rate (before recycling and taxes), and the discount is 25% for the 35-gallon size.

Sedro-Woolley recently conducted a pilot project for every-other-week (EOW) garbage collection. The pilot project was conducted December 2014 through May 2015. The pilot project was considered a success but the City is not pursuing this approach at this time. Sedro-Woolley also provides low-income rates for residential services that are 20% less than regular rates, and offers “bulk collection” for large items (stoves, refrigerators, etc.) for an extra fee.

City Contracts

The City of Burlington provides waste collection services to their residents and businesses through a contract with Waste Management. The City of Burlington has universal, or mandatory, garbage collection services, and the rates charged are based on the contract between the City and Waste Management (see Table 6-1). The billing for these services is conducted by Waste Management. A discounted garbage service rate is offered for senior citizens and disabled customers in Burlington. In Burlington, recycling is required for residential customers.

Certificated Areas

Waste Management (800-592-9995, 12122 Bay Ridge Drive, Burlington, WA) provides waste collection services in five cities and towns (Burlington, Concrete, Hamilton, La Conner and Lyman) and in the unincorporated areas of Skagit County, as well as providing curbside recycling services to homes in the area west of Highway 9. In the Waste Management service area (except for Burlington), subscription to waste collection services is voluntary for residential and commercial customers. A certificate issued by the State provides Waste Management with the exclusive right to collect solid waste from residences and businesses in the unincorporated areas of the County, although people and companies also have the right to haul their own garbage to the transfer station or one of the two rural facilities. Waste Management also collects solid waste in most of the neighboring counties (Chelan, Island, Okanogan, Snohomish and Whatcom Counties).

Waste Management’s rates are shown in Table 6.1. In addition to the typical service options for residential customers, Waste Management offers once-monthly and every-other-week pickup of one can. The rate for once-monthly collection of garbage (\$5.60) is the lowest monthly rate offered by Waste Management for residential service, and the low rate is based on the actual collection cost savings and lower disposal volumes associated with this level of service. Additional fees are assessed for temporary accounts, container rental, special (unscheduled) pickups, overfull containers and other services. Rates charged by Waste Management in the certificate areas are regulated by the UTC.

One small area of Skagit County, Sinclair Island, may be serviced by another certificated hauler. Sinclair Island is part of the certificated area for Disposal Services, Inc., which is based in Ferndale, Washington (4916 LaBounty Drive, Ferndale, WA 98248, 360-384-8011). Sinclair Island lies off of the western shore of mainland Skagit County and is only 1.6 square miles in size. The most recent annual report provided to the UTC for this area shows that no services were provided on Sinclair Island in 2015.

Collection Services for Other Jurisdictions

Tribal lands and Federal facilities such as military bases can arrange for refuse collection services independently. The Swinomish Tribal Community and the Samish, Sauk-Suiattle, and Upper Skagit Indian Reservations are located within Waste Management's certificate area but have not chosen to make alternative arrangements.

6.3. PLANNING ISSUES FOR WASTE COLLECTION

Current and Future Capacity

The current collection system does a good job of collecting and removing solid wastes generated by the County's and City's residents and businesses. Future waste quantities have been estimated (see Table 2.9), and the existing collection system is anticipated to be able to handle the projected increase.

Waste Diversion Programs

Some service gaps associated with the current collection system have been noted for recycling and organics, and these are discussed in Chapters 4 and 5, respectively.

Climate Action Plan

The Skagit County Climate Action Plan adopted in 2010 made one recommendation regarding waste collection, which is to "provide garbage vouchers for low-income residents" (Policy D-10). This policy was intended to apply to garbage collection and disposal, as well as recycling.

6.4. ALTERNATIVE WASTE COLLECTION STRATEGIES

The following alternatives were considered for new or expanded waste collection activities. The listing of an alternative in this section does not mean that it is considered feasible or desirable, nor that is recommended (see Section 6.6 for the recommendations).

Alternative A – Institute Program of Discounts for Low-Income Families

All four of the largest cities (Anacortes, Burlington, Mount Vernon and Sedro-Woolley) already offer low-income or senior citizen and disability discounts. Implementing this approach in the certificated area is allowed by State law (RCW 81.77.195) and would require that Skagit County adopt a service level ordinance for this. Procedures would need to be worked out for determining the households that would qualify for this. Waste Management would need to file a new tariff to adopt rates that are based on an estimate of the number of qualifying households that would use the discount. It should be noted, however, that other provisions of State law (WAC 480-70-336(4)) do not allow other ratepayers to be charged more to make up for the discounted rates, meaning that Waste Management would be forced to absorb the reduction in revenues caused by the discount.

Alternative B – More Promotion of Drop Box Service for Recycling and Organics

Customers who use temporary drop boxes (roll-off containers) could be encouraged to source-separate organics and recyclables, including C&D, so that these materials could be delivered to the appropriate processing facilities instead of being disposed. This promotion is already being done to some extent, but more could be done.

Alternative C – Switch to Every-Other-Week Collection

The Cities (through changes in their own operations or in contracts) and the County (through a service level ordinance) could change garbage collection to every-other-week. This step would reduce the environmental impacts associated with waste collection, promote diversion of recyclables and organics, and reduce costs for waste collection subscribers. Potential drawbacks include concerns about odors and pests, and more missed pickups due to confusion about the collection schedule. Every-other-week service is already offered as an option in Waste Management's service area, but this alternative is not well publicized.

Alternative D – Mandatory Waste Collection

Another alternative to meet collection needs for Skagit County is mandatory garbage collection in the rural areas. Currently about 57% of the County's residents are in areas where collection service is already mandatory (i.e., the four largest cities) and the remainder of the residents are in areas where subscription to collection service is voluntary. Mandatory collection in unincorporated areas could be provided through a solid waste collection district. State law (Chapter 36.58A RCW) enables a county to establish such a district.

Mandatory collection programs throughout the rest of Skagit County would provide some benefits, but not without possible drawbacks. Potential benefits include a reduction in illegal dumping; a reduced need for enforcement of illegal dumping, littering and other laws; and greater ability to provide curbside recycling programs (assuming a combination of recycling and garbage services). Mandatory collection, however, can act as a disincentive for those who are already reducing their wastes.

6.5. EVALUATION OF WASTE COLLECTION ALTERNATIVES

Review of Rating Criteria

The above alternatives can be evaluated and rated according to several criteria and a decision made as to whether to pursue an alternative or not based on the overall rating for each. These criteria include:

- consistency with the planning goals shown at the beginning of this chapter and with the goal of diverting more materials from disposal.
- the degree to which an alternative is considered to be technically and politically feasible to implement.
- the cost-effectiveness of an alternative can be assessed based on the presumed total costs of the activity versus its potential benefits and relative to other alternatives or to the existing practices.
- the potential for additional diversion of materials from the waste disposal system (as a percentage of the waste stream).

Consistency with Solid Waste Planning Goals: None of the alternatives are inconsistent with the planning goals, but some agree with the goals better than others. Alternative D, mandatory garbage collection, is rated low for consistency with planning goals due to the lack of flexibility it creates for rural residents.

Feasibility: All of these alternatives would be challenging in various ways to implement. Alternative A, low income vouchers, would require the County to adopt a service level ordinance and additional actions by Waste Management would be needed to implement this in the certificated area. Alternative B, more promotion of drop boxes for organics and recyclables, would be difficult to implement outside of the cities. Both Alternative C, switching to EOW collection, and Alternative D, mandatory garbage collection, would be very politically challenging to implement.

Cost Effectiveness: Alternative A, low-income vouchers, could be cost-effective in the sense that encouraging proper waste disposal is less expensive than cleaning up junk properties and illegal dumping, but is rated low for this criteria due to the high administrative costs involved in setting up this program. The other alternatives are rated better for cost-effectiveness on the basis that the cost of the approach would be low or because the costs would be covered by user fees.

Diversion Potential: Alternative A, low-income collection vouchers, is not expected to lead to increased recycling. Alternative B, more promotion of drop boxes for organics and recyclables, could lead to more diversion. Alternative C, switching to EOW collection, could encourage more waste diversion but this could depend on how recycling and waste collection services are packaged. Alternative D, mandatory garbage collection, could lead to significantly more recycling or have the reverse effect, depending on whether it is combined with curbside recycling services.

Rating of Alternatives

The evaluation of the alternatives is summarized in the following table.

Table 6-2. Ratings for the Waste Collection Alternatives					
Alternative	Consistency with Goals	Feasibility	Cost-Effective-ness	Diversion Potential	Overall Rating
A, Collection vouchers for low-income families	M	L	L	L	L
B, Promote drop boxes for recycling and organics	H	L	M	M	M
C, Switch to EOW service	M	L	H	M-H	M
D, Mandatory garbage collection	L	L	M	L-H	L

Rating Scores: H – High, M – Medium, L – Low

6.6. WASTE COLLECTION RECOMMENDATIONS

The following recommendations are being made for waste collection programs in Skagit County.

Medium-Priority Recommendations

WC1) More promotion should be conducted for drop box customers to source-separate recyclable and compostable materials.

WC2) The cities and Waste Management should consider switching all residential garbage collection services to every-other-week service.

Overview of Implementation Responsibilities, Costs and Schedule

The lead entities responsible for these recommendations are the three cities with municipal collection systems and the primary waste hauler (Waste Management). The City of Burlington will also need to be involved in Recommendation WC2.

The cost for Recommendation WC1 will be up to \$25,000 and this would be primarily funded by the Cities and Waste Management (but paid through collection service fees). The cost for Recommendation WC2 will include public education expenses if every-other-week service is actually implemented.

The implementation of these recommendations should begin in 2018.

More details on the implementation of these and other recommendations are shown in the Implementation Plan (see Chapter 10).

TRANSFER AND DISPOSAL SYSTEM

7.1. BACKGROUND FOR THE TRANSFER AND DISPOSAL SYSTEM

Introduction

This chapter of the Solid Waste Management Plan (SWMP) discusses the various components and options for the transfer and disposal system in Skagit County.

Regulations Concerning Waste Transfer and Disposal

State laws and regulations concerning waste transfer and disposal can be found in the Revised Code of Washington (RCW) and the Washington Administrative Code (WAC). The RCW contains the laws adopted by the State Legislature, while the WAC consists of the regulations adopted by State agencies to implement the laws contained in the RCW. The most relevant State regulations include:

- WAC 173-350-100 defines transfer stations, drop box facilities, and intermediate solid waste handling facilities. These facilities must meet specific design and operating standards, although closure and financial assurance standards are minimal for these types of facilities.
- RCW 36.58.050 states that transfer stations included in a solid waste plan are exempt from regulation by UTC and requirements to use certificated haulers. Furthermore, it states that the county “may enter into contracts for the hauling of trailers of solid wastes from these transfer stations to disposal sites and return either by (1) the normal bidding process, or (2) negotiation with the qualified collection company servicing the area under authority of Chapter 81.77 RCW.”
- Chapter 36.58 RCW, Solid Waste Disposal, authorizes counties to contract for disposal services, designate disposal sites, and to form disposal districts.
- Chapter 173-350 WAC, Solid Waste Handling Standards, provides rules for implementing Chapter 70.95 RCW and sets minimum functional performance standards for the proper handling of solid wastes. Ch. 173-350 contains rules for facilities for recycling, composting, land application, anaerobic digesters, intermediate solid waste handling, piles, MRW and limited purpose landfills, as well as providing rules for beneficial use permits, groundwater monitoring, financial assurance and other important activities.
- Chapter 173-351 WAC, Criteria for Municipal Solid Waste Landfills, provides minimum standards for solid waste landfills (not including inert or limited purpose landfills). Local jurisdictional health departments can enact ordinances equally as or more stringent than this regulation.

The primary local regulations addressing transfer stations and other solid waste facilities are included in the Skagit County Code (SCC), Chapters 12.16 - Solid Waste Handling and Facilities, and 12.18 – Solid Waste Disposal System. Chapter 12.18 contains the flow control ordinance that requires solid wastes generated in Skagit County to be delivered to a designated disposal facility, which effectively prevents a private transfer station from being established in Skagit County unless County code is revised to designate it.

A landfill typically operates under the rules of the county in which it is located, as enforced by the local health district, as well as State and Federal rules. The Roosevelt Regional Landfill (owned by Republic Services), where Skagit County's waste is currently disposed, is governed by the rules of Klickitat County and its health district. Activities at the Roosevelt Regional Landfill are also guided by an agreement between Klickitat County and Republic Services and by the conditional use permit for the landfill.

Goals for the Transfer and Disposal System

While all of the goals adopted by the SWAC (see Section 1.8) apply to the transfer and disposal system, the following goals are the most relevant:

- create efficient service levels with respect to cost and environmental protection.
- establish level-of-service standards for urban and rural areas.
- meet governmental financial, environmental and public health obligations.
- incorporate flexibility to anticipate future needs.
- maintain and improve a long-term stable solid waste management system.

7.2. SYSTEM OVERVIEW AND POLICY

In the early to mid-2000s, the roles of the private sector, the Cities, and the County in solid waste transfer and disposal (collectively called “the System”) was a topic of serious debate. In response to these discussions, on March 19, 2007 the Board of Skagit County Commissioners adopted resolution #R20070141 requiring “that the County-owned transfer station be the primary designated site within Skagit County for the purpose of collection, processing and transferring of municipal solid waste.”

The System is now a well-integrated combination of facilities, programs, activities and agreements that work together to ensure the proper and effective handling of solid waste. The County, Cities and private companies have made substantial investments in the System to ensure environmentally-sound recycling and disposal of solid waste and to safeguard public health. In addition, the transfer and disposal elements of the System also funds related aspects such as cleanup of illegal dumping, remediation of past disposal sites, and proper management of moderate risk wastes.

A System Policy was developed to preserve the System's ability to fulfill its obligations and mandates for solid wastes. The key points of the System Policy are:

- The County-owned transfer station is designated as the only currently-approved municipal solid waste facility in Skagit County, and all municipal solid waste generated in Skagit County must be delivered there (or to one of the two rural drop box sites) unless specifically exempted in the System Policy.
- Other solid waste facilities may be allowed in the future, but only after consulting with the SWAC and then approval by the Skagit County Solid Waste System Governance Board (per the terms of the interlocal agreement dated April 30, 2008 [Skagit County Contract # C20080306, amended in 2010 by #20100124]), and in response to a procurement process conducted by Skagit County. If successful, this process may result in a contract between Skagit County and another entity.
- The Health Department shall continue to require ongoing contract compliance as a condition of annual solid waste facility permit renewal requirements.

Private facilities handling waste from outside the county must comply with the Skagit County Solid Waste Management Plan, the Moderate Risk Waste Management Plan, the Skagit County Comprehensive Plan, and the solid waste management plan and regulations of the jurisdiction in which the waste is generated. Because Skagit County Code (SCC 12.18.040(3)) states that emptying a waste container in Skagit County is defined as waste that is generated in Skagit County, any recycling or other waste handling facilities in the county must use a Skagit County facility for disposal of non-recycled residuals.

7.3. TRANSFER SYSTEM

Existing Activities for Waste Transfer

The transfer system consists of three facilities owned and operated by Skagit County: two drop box sites that collect waste and recyclables in rural locations, and a transfer station near Mount Vernon that receives waste and recyclables from commercial haulers, self-haulers, and drop boxes from the rural sites.

Skagit County Transfer and Recycling Station (TRS): Completed in 2012, the TRS consists of a vehicle scale, scalehouse, recycling drop-off area, tipping building for commercial and self-haul vehicles, and pre-load compactor. It is located at the site of the closed incinerator, approximately five miles west of Mount Vernon at the intersection of Farm-to-Market and Ovenell Roads. The TRS is open 359 days a year for recycling and waste disposal from 8:30 a.m. to 6:00 p.m.

In 2014, the TRS received a total of 99,189 tons of waste, including the wastes brought from the Sauk (1,550 tons) and Clear Lake (136 tons) sites, waste delivered by Waste

Management (the primary certificated collection company in Skagit County), the cities that conduct municipal collections, and waste brought in by businesses and residents (self-haulers). Excluding contributions from the Sauk and Clear Lake sites, the TRS received 97,465 tons, or 98% of the County's total solid waste. A total of 111,842 loads were disposed at the TRS in 2014.

Sauk Transfer Station: The Sauk Transfer Station is located between Concrete and Rockport and is open Thursday through Sunday from 9:00 a.m. to 5:00 p.m., except for six holidays per year. This facility is operated for the collection of household waste only (i.e., no commercially-collected waste). The site consists of an attendant's trailer, a vehicle scale, six recycling drop boxes of various sizes, and an appliance receiving area. A Z-wall allows customers to drop waste down into the six solid waste drop boxes located on the lower level of the station.

In 2014, 10,660 customers delivered 1,550 tons of solid waste to this facility, or about 1.7% of the County's waste stream. The Sauk Transfer Station also accepts a variety of materials for recycling, including glass, aluminum, cardboard, plastic milk jugs, magazines, and mixed waste paper. Used motor oil, antifreeze and white goods (large appliances) are also accepted. The County hauls full waste containers to the TRS for disposal and recycling containers are brought to Skagit River Steel & Recycling in Burlington for sorting, processing, and marketing. In 2014, 202 tons of recyclables were dropped off at this facility.

Clear Lake Recycling and Compactor Site: The Clear Lake compactor site is located on Howey Road near the intersection of State Highway 9 and South Skagit Highway. As of January 1, 2017, this site is open Friday through Monday from 8:00 a.m. to 6:00 p.m. for the collection of household wastes and recyclables. The site consists of an attendant's building, two stationary compactors, six recycling drop boxes of various sizes, and an appliance receiving area. Because Clear Lake has no scale, customers are charged on the basis of volume. Recyclables accepted include cardboard, mixed waste paper, magazines, newspaper, aluminum cans, plastic containers, glass, scrap metal, used oil and antifreeze.

In 2014, 4,049 customers delivered 136 tons of solid waste to this facility, or about 0.2% of the County's waste stream. Another 238 tons of recyclables were dropped off at this facility in 2014. The County hauls full waste containers to the TRS for disposal and recycling containers are brought to Skagit River Steel.

Planning Issues for Waste Transfer

Cost-Effectiveness of Rural Sites: The Sauk and Clear Lake facilities provide convenience and reduce the driving distance for County residents who do not subscribe to curbside collection service. However, in 2014 Sauk handled only about 1.7% of the County's waste stream, while Clear Lake handled less than 0.2%. At

these levels, the cost of operating these sites is relatively high (especially for Clear Lake, at more than \$883 per ton).

Signage for TRS: It has been reported that self-haul customers occasionally miss the entrance to the TRS and end up at one of the nearby recycling or composting facilities. The signage could be reviewed and upgraded, and additional signs installed as appropriate.

Emphasis on Recycling and Coordination between Facilities: It has been suggested that there may be a better way to handle customers with mixed loads, such as a vehicle carrying both solid waste and yard waste/construction debris. It is desirable to divert material away from landfill disposal and direct it instead to recycling or composting facilities. One method would be to have the scale attendants at the transfer station (TRS) encourage customers to preferentially utilize local recycling facilities.

Alternatives for Waste Transfer

Alternative A – Install Waste Transfer Capacity at Sedro-Woolley Site and Close Clear Lake Site: The County's Clear Lake compactor site is located about two miles from Sedro-Woolley's recycling and yard waste facility at 315 Sterling Street. This proximity makes it worthwhile to consider closing the Clear Lake facility and redirecting County customers to the City's facility, whose permit would need to be modified to become a drop box facility and accept solid waste. If this is done, applicable Skagit County Code (including SCC 12.18) may also need to be revised. The Clear Lake compactors could be relocated to the City's facility, or it may be more cost-effective to have self-haulers unload garbage into small dumpsters which can then be emptied into City compactor trucks.

Potential advantages for this alternative include:

- increases the functionality of the current City site by adding solid waste collection.
- potential overall labor savings by operating one facility instead of two. the close proximity of the Sedro-Woolley facility does not significantly increase the driving distance for County self-haul customers.
- increased quantities of recyclables at the City site may increase prices received.

Potential disadvantages for this alternative include:

- traffic considerations and inconvenience to customers from outlying areas.
- need to negotiate mutually agreeable terms between the County and City.
- need to decide who should haul garbage from the City's site to the TRS and recyclables to processing facilities, and for what compensation.
- potential zoning and environmental issues to permit the City's site to accept garbage.

- possible increase in illegal dumping by existing Clear Lake customers (although likely this would be only a temporary problem).

Alternative B – Increased Emphasis on Recycling: A policy could be adopted by Skagit County that states that scalehouse attendants at TRS could inform customers with potentially-recyclable materials about possible cost savings and environmental benefits of taking recyclable or compostable materials to other local facilities. The County could develop updated brochures or handouts listing locations and rates at these alternative facilities that could be provided to these customers. The brochures could be provided at the scalehouse and at the tipping floor. Changing customers' behavior at either of these points could be difficult due to customers' reluctance to change their practices by hauling their material to two facilities (e.g. TRS and a yard waste or construction debris facility). In addition, it may be difficult for scale attendants to clearly see the contents of loads and identify appropriate customers.

These alternatives are evaluated later in this chapter (see Section 7.6), and the resulting recommendations are shown at the end of this chapter (see Section 7.7).

7.4. WASTE IMPORT

Existing Waste Import Activities

Currently only a small amount of solid waste is imported to disposal facilities in Skagit County, although significant amounts of wastes are transported through the county. In addition, various materials flow back and forth across the county line to composting and recycling facilities. Waste import and trans-shipment activities include:

- Containers of waste from the Orcas Island Transfer Station are hauled by truck directly to Republic Service's intermodal railhead facility near the TRS.
- Solid waste from the Friday Harbor transfer station is hauled through Skagit County to a landfill in Cowlitz County.
- Waste from the Lopez Island transfer station is hauled in 40-yard roll-off containers to the TRS (this arrangement is permitted by an Interlocal agreement, Skagit County Contract #20130187).
- Island County waste is either trucked through Skagit County to Everett or to Republic Service's intermodal railhead facility near the TRS and put on trains there.
- Solid waste from the Diablo and Newhalem area (Whatcom County) is hauled by Waste Management to the TRS.
- Some recyclables and feedstocks are imported to recycling and composting facilities in Skagit County.

Planning Issues and Alternatives for Waste Import

There are no specific waste import issues that need to be addressed at this time and so no waste import alternatives are being considered (although see Chapter 9 for a discussion of an interlocal agreement between Skagit and Whatcom Counties).

7.5. WASTE EXPORT AND DISPOSAL

Existing Waste Export and Disposal Activities

Existing Landfills in Skagit County: There are no solid waste landfills open to the public currently operating in Skagit County. The Sauk and Gibraltar Landfills received solid waste until 1989 and the Inman Landfill operated until 1994.

Two limited purpose landfills are currently operating in Skagit County. Tesoro's limited purpose landfill on West March Point Road in Anacortes accepts only sludge generated from the Tesoro industrial wastewater treatment plant system. Shell Oil also has an active limited purpose landfill on South Texas Road in Anacortes that only receives sludge from Shell's industrial wastewater treatment plant system.

Closed or Abandoned Landfills: There are 37 closed or abandoned landfills located throughout Skagit County. Three sites were closed under Chapter 173-304 WAC provisions and are still undergoing routine groundwater and gas monitoring as part of the post-closure process. The remaining 34 sites vary in age, size, and complexity. The Health Department periodically inspects the sites and when warranted may require occasional groundwater, surface water, and/or gas monitoring related to a particular site. The Health Department reviews any major land use changes and well drilling occurring within the immediate vicinity of a site. All of the sites are included in the Skagit County mapping information accessible to the general public.

Some sites have gone through additional remediation activities since their original closure. Since 2010, four sites have completed additional remediation activities. The Whitmarsh Landfill (March's Point Landfill) is currently involved in formal RI/FS review and remediation activities via the Department of Ecology. The Whitmarsh Landfill remediation is part of Ecology's Puget Sound Initiatives cleanup process.

Existing Waste Export System: The Inman Landfill was used to dispose of incinerator ash and wastes that the incinerator (the Resource Recovery Facility, or RRF) could not handle. When it was determined that it was not economically feasible to bring the Inman Landfill up to new regulatory (Subtitle D) standards, the County requested proposals from private companies for transportation and disposal of these wastes at an out-of-county landfill. In October 1993, a 10-year contract was executed with the Regional Disposal Company (RDC, now part of Republic Services) to transport ash and non-processible wastes from the RRF to RDC's landfill in Klickitat County, Washington. After the RRF closed in 1994, Skagit County's entire

solid waste stream was disposed through this waste export and landfill disposal system. Supplemental Agreement #2 (June 15, 1998) extended the term of the contract through September 30, 2013. The County has since exercised its option for two five-year renewals, extending the contract until late 2023.

When the RRF was closed in 1994, it was converted into a transfer station to serve the waste export system. In 2012, the new Transfer and Recycling Station (TRS) constructed at the RRF site began operations. The County hauls containers of compacted waste about one mile to the Republic Services railhead near the TRS. The RRF was converted to a street waste decant facility in 2014 and began taking street sweepings and material from catch basin cleaning.

Small amounts of contaminated soils and sludges are currently exported to other landfills outside of Skagit County. The only other waste export systems in use in the County are for small quantities of special wastes (such as biomedical waste, see Chapter 8) that are sent to special facilities.

Planning Issues for Waste Export and Disposal

Waste Export and Disposal Contract: In 2021, the County will need to begin preparing a Request for Proposals for export of solid waste in anticipation of the 2023 expiration of the current contract with Republic Services.

Need for In-County Landfills: It is possible that additional special purpose or inert waste landfills may become desirable in the future. These types of landfills can provide a cost-effective disposal option for local industries or special wastes without excessive environmental impacts. There are a variety of reuse options available for some types of wastes, however, and these options currently limit the need for additional special purpose or inert waste landfills. Inert landfills also require continued oversight as they tend to attract wastes other than inert waste.

Potential Future Options for Disposal: Skagit County is well-served by its current waste export and disposal program, but occasionally there may be some interest in additional methods of reducing the amount of waste being landfilled. The term “conversion technologies” refers to methods for converting organics or other materials into energy or useful products. These methods require inputs of waste and energy and may involve mechanical and/or thermal pretreatment. The outputs can include energy (electricity and/or heat), recyclable materials, inert materials, residuals requiring disposal, and flue gas emissions that require treatment. It should be noted that not all of these technologies are considered disposal methods (especially in the case of anaerobic digestion) and all create residues that would need further processing and/or disposal. The major types of waste conversion are:

- **Pyrolysis:** For this process, waste is broken down thermally in the absence of air, producing oil and synthetic gas that can be burned to generate electricity.

- **Gasification:** This process is similar to pyrolysis, but takes place under low-oxygen conditions (less than necessary for ordinary combustion) to produce a synthetic gas that can be used to generate electricity.
- **Plasma gasification:** This process uses an electrical arc to break down organic parts of waste into elemental gas which can then be burned in a gas turbine or engine to generate electricity.
- **Anaerobic digestion:** This process uses microbes to digest organic wastes and produce methane gas, which then powers turbines or generators to produce electricity. Sometimes the waste heat from the engines is reclaimed to heat the digester. There is currently an operating anaerobic digester in Skagit County that treats food processing waste.
- **Chemical production:** Chemical and/or biological processes can be used to break down the organic portion of solid waste to produce useful chemicals such as ethanol.
- **Conventional energy from waste (EfW, formerly called incineration):** The heat from incineration of waste, typically captured in the form of steam, can be used as an energy source. Most of the steam produced is used to generate electricity, although some European cities use a portion of the steam for district heating of nearby buildings. There are about 2,000 EfW plants worldwide, mostly in Europe and Asia. Scrap metals are typically recovered from EfW plants and in some areas the ash is beneficially reused.

In recent years, conversion technology vendors have proposed various projects, but relatively few facilities have been able to successfully apply these technologies to solid waste in the United States. Because solid waste is such a highly variable mix of materials, it is more difficult to process than more homogenous waste streams such as wood chips, agricultural waste, or certain industrial wastes. Conversion technologies still have a sparse track record of successful full-scale projects with demonstrated long-term economic feasibility from the sale of energy and/or useful byproducts. Conversion technologies need to meet regulatory compliance and environmental protection standards to gain public acceptance. In addition, the possible adverse impact on existing diversion/recycling programs must be weighed against the potential benefits of energy production.

Alternatives for Waste Export and Disposal

Alternative C – Waste Export and Disposal: Waste export via rail and disposal in an out-of-county landfill has worked well for Skagit County for over two decades, and there is no strong case for changing that practice. The current export and disposal agreement expires in 2023, and in order to continue with this system the County would need to begin in 2021 to prepare a Request for Proposals for export and disposal of solid waste.

Alternative D – Conversion Technology: As waste conversion technologies improve and if energy and materials markets become more favorable, it may be worthwhile to consider proposals for conversion technology facilities to process a portion of the County’s solid waste. These could be evaluated on a case-by-case basis for consistency with this Solid Waste Management Plan and with the waste export and disposal agreement, as well as consistency with siting, zoning, environmental and health regulations. Potential adverse impacts on existing recycling and other diversion programs should be weighed against potential benefits of energy production, particularly in light of the cyclical nature of energy prices.

Alternative E – Additional In-County Landfills: While there is currently no need for another inert waste or limited purpose landfill in Skagit County, a public or private entity may propose to develop one in the future. Such proposals could be evaluated on a case-by-case basis for consistency with this Solid Waste Management Plan and with the waste export and disposal agreement, as well as consistency with siting, zoning, environmental and health regulations.

These alternatives are evaluated in the next section (see Section 7.6), and the resulting recommendations are shown at the end of this chapter (see Section 7.7).

7.6. EVALUATION OF TRANSFER AND DISPOSAL ALTERNATIVES

Review of Rating Criteria

The transfer and disposal alternatives can be evaluated and rated according to several criteria and a decision made as to whether or not to pursue an alternative based on its overall rating. These criteria include:

- consistency with the planning goals shown at the beginning of this chapter and with the goal of diverting more materials from disposal.
- the degree to which an alternative is considered to be technically and politically feasible to implement.
- the cost-effectiveness of an alternative can be assessed based on the presumed total costs of the activity versus its potential benefits and relative to other alternatives or to the existing practices.

Consistency with Solid Waste Planning Goals: Alternatives A, B and C are consistent with the planning goals for transfer and disposal. Alternative A merely relocates solid waste and recycling functions from the Clear Lake site to Sedro-Woolley. Alternative B promotes recycling of mixed loads taken to the transfer station. Alternative C extends the existing disposal system farther into the future. Neither Alternative D (a conversion facility) nor Alternative E (an inert or limited purpose landfill) respond to a pressing current need, but they do provide flexibility

to consider certain proposals in the future. Alternative D is potentially more consistent with other goals of this SWMP, such as increased diversion and recovery of energy and materials.

Feasibility: Both Alternative A and C are rated high for feasibility because the existing Sedro-Woolley site appears to be suitable for adding waste transfer (Alternative A) and Alternative C would allow continuation of the current waste export and disposal system. Alternative B is rated medium for feasibility due to questions about the ability to observe loads and to convince customers to change their disposal and recycling practices. Alternative D is rated low due to the limited successful experience with waste conversion facilities in the U.S. If there were sufficient economic demand, Alternative E (inert or limited purpose landfill) could be technically feasible under existing environmental regulations, but could be politically challenging and so it is rated low for this criteria.

Cost-Effectiveness: Alternative A, adding waste transfer to Sedro-Woolley and closing Clear Lake, could be more cost-effective if operational efficiencies are realized. Alternative B entails a nominal cost for developing and printing new educational brochures but customers could potentially realize a cost savings. Alternative C involves continuing the existing waste export and disposal system, which is currently cost-effective and expected to remain so. Because no proposals for Alternative D (a conversion facility) or Alternative E (an inert or limited purpose landfill) have yet been received, it is not possible to accurately judge their cost-effectiveness at this time.

Rating of Alternatives

The evaluation of the alternatives is summarized in the following table.

Table 7-1. Ratings for the Transfer and Disposal Alternatives				
Alternative	Consistency with Goals	Feasibility	Cost-Effectiveness	Overall Rating
A, Add waste transfer in Sedro-Woolley and close Clear Lake site	H	H	M-H	H
B, Increased emphasis on recycling mixed loads	H	M	H	H
C, RFP for new waste export and disposal contract	H	H	H	H
D, Consider waste conversion proposals	M-H	L	NA	M
E, Consider inert or limited purpose landfill proposals	L	L	NA	L

Rating Scores: H – High, M – Medium, L – Low, NA – Not Applicable (unknown at this time).

7.7. RECOMMENDATIONS FOR TRANSFER AND DISPOSAL

High-Priority Recommendations for the Transfer System

- T1) Skagit County and the City of Sedro-Woolley should evaluate the benefits and impacts of potentially closing the Clear Lake Compactor Site and possibly moving those operations to the Sedro-Woolley Recycling Facility, and this change may be implemented if mutually agreeable.
- T2) Transfer station customers will be encouraged to bring source-separated materials to other facilities for recycling or composting.

High-Priority Recommendations for Waste Export and Disposal

- D1) Skagit County will begin preparing a Request for Proposals for a new waste export and disposal contract in 2021.

Medium-Priority Recommendations for Waste Export and Disposal

- D2) Any future proposals for waste conversion facilities should be evaluated on a case-by-case basis for consistency with this Solid Waste Management Plan and existing programs; the waste export and disposal agreement then in effect; applicable siting, zoning, environmental and health regulations; and other criteria appropriate to the proposed system.

Low-Priority Recommendations for Waste Export and Disposal

- D3) Any future proposals for additional inert or limited purpose landfills should be evaluated on a case-by-case basis for demonstrated need and benefit to the citizens of Skagit County; consistency with this Solid Waste Management Plan; and applicable siting, zoning, environmental and health regulations.

Overview of Implementation Responsibilities, Costs and Schedule

The lead agency responsible for implementing most of these recommendations will be Skagit County, with assistance from the Cities as appropriate. Recommendation T1 will be implemented by the County and the City of Sedro-Woolley, with input from the Health Department. The County should implement Recommendation T2 with assistance from private recycling and composting facilities. The County will need to implement Recommendation D1 with approval by the Governance Board. Recommendations D2 and D3 will not need to be acted upon until such time as an applicable proposal is received.

The costs to Skagit County for these recommendations will consist primarily of staff time. Recommendation T2 will require the production of additional education materials, at a cost of \$5,000 to \$10,000 (and staff time). Changes in costs brought about by implementation of any of these recommendations may affect costs for waste generators.

Discussions between Skagit County and the City of Sedro-Woolley regarding Recommendation T1 should begin in 2018. Recommendation T2 should be implemented in 2017 if possible. Implementation of Recommendation D1 should begin in 2021. Recommendations D2 or D3 cannot be implemented until a proposal for either a waste conversion facility or a landfill is actually received by the County.

More details on the implementation of these and other recommendations are shown in the Implementation Plan (see Chapter 10).

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SPECIAL WASTES

8.1. BACKGROUND

Introduction

This chapter of the Solid Waste Management Plan (SWMP) reviews the generation, handling and disposal methods for several special wastes in Skagit County. These wastes require special handling and disposal due to regulatory requirements or for reasons such as toxicity, quantity or other special handling problems.

The following special wastes are discussed in this chapter:

- 8.2 Asbestos
- 8.3 Biomedical Wastes
- 8.4 Disaster Debris
- 8.5 Moderate Risk Wastes

The nature and source(s) for each special waste are described in this chapter, as well as the existing programs and facilities in Skagit County for handling each waste. The wastes are also examined for needs and opportunities (planning issues), and then alternatives and recommendations are proposed based on those needs.

Goals for Special Wastes

While all of the goals adopted by the SWAC (see Section 1.8) apply to special wastes, the following are most relevant:

- meet governmental financial, environmental and public health obligations.
- create efficient service levels with respect to cost and environmental protection.

8.2. ASBESTOS

Existing Management Practices for Asbestos

Asbestos is a naturally occurring fibrous mineral with heat, chemical, and electrical resistant properties. Before it was banned in the 1980s as a cause of respiratory diseases and cancers, asbestos was widely used in a variety of building materials such as siding, insulation, fireproofing, ductwork, and piping. Although asbestos is still used in some products, today it is typically encountered during the demolition of old buildings or removal of old piping, ductwork, boilers and furnaces during building renovations. Airborne asbestos particles are the primary health concern, as

these particles become lodged in the lungs when breathed in and then cause long-term health problems.

The Northwest Clean Air Agency (NWCAA) regulates asbestos removal activities in Skagit County through its Regulation of the Northwest Clean Air Agency. The applicable regulations are found primarily in Section 570 – Asbestos Control Standards, and Section 550 – Preventing Particulate Matter from Becoming Airborne. These regulations provide guidelines for safe asbestos handling and require that NWCAA be notified prior to removal. NWCAA regulations require that they be notified of any demolition project exceeding 120 square feet. The NWCAA regulations are coordinated with the National Emission Standards for Hazardous Air Pollutants (NESHAP), and regulations administered by OSHA, the Washington Department of Labor and Industries, the Washington Department of Ecology, and the solid waste regulations of Island, Skagit and Whatcom Counties.

Asbestos-containing materials (ACM) are not accepted for disposal at any Skagit County-owned solid waste facility. NWCAA publishes a list of firms that accept ACM, as well as landfills that dispose of ACM.

Planning Issues for Asbestos

Skagit County Planning and Development Services does not require an asbestos permit prior to issuing a renovation or demolition permit, nor an asbestos product checklist prior to issuing a building permit, so there is not a link between performing demolition or construction activities and testing for ACM. Without certification by an AHERA-certified inspector, theoretically any load of construction or demolition waste could contain asbestos. This poses a potential health risk for workers at both County-operated waste facilities and private sector construction/demolition debris facilities.

Asbestos Management Alternatives

Improved disposal practices for ACM could be accomplished through:

- **Special Waste Alternative A – Stricter Enforcement of ACM Regulations:** Current ACM regulations, which already require a survey for ACM as part of building or demolition permits for projects greater than a specified minimum size, could be strictly enforced by County and municipal building/planning departments and NWCAA.

This alternative is evaluated later in this chapter (see Section 8.6), and the resulting recommendations are shown at the end of this chapter (see Section 8.7).

8.3. BIOMEDICAL WASTES

Regulation of Biomedical Wastes

State law (Chapter 70.95K RCW) defines biomedical wastes to include:

Animal waste: animal carcasses, body parts and bedding of animals that are known to be infected with, or have been inoculated with, pathogenic microorganisms infectious to humans.

Biosafety level 4 disease waste: waste contaminated with blood, excretions, exudates, or secretions from humans or animals who are isolated to protect others from highly communicable infectious diseases that are identified as pathogenic organisms assigned to biosafety level 4 by the centers for disease control, National Institute of Health, biosafety in microbiological and biomedical laboratories, current edition.

Cultures and stocks: wastes infectious to humans, including specimen cultures, cultures and stocks of etiologic agents, wastes from production of biologicals and serums, discarded live and attenuated vaccines, and laboratory waste that has come into contact with cultures and stocks of etiologic agents or blood specimens. Such waste includes but is not limited to culture dishes, blood specimen tubes, and devices used to transfer, inoculate, and mix cultures.

Human blood and blood products: discarded waste human blood and blood components, and materials containing free flowing blood and blood products.

Pathological waste: human source biopsy materials, tissues, and anatomical parts that emanate from surgery, obstetrical procedures and autopsy. Does not include teeth, human corpses, remains and anatomical parts that are intended for interment or cremation.

Sharps: all hypodermic needles, syringes and IV tubing with needles attached, scalpel blades, and lancets that have been removed from the original sterile package.

Skagit County Code (SCC) 12.16.350 regulates the collection, management, and disposal of biomedical wastes generated within the County. The Washington Utilities and Transportation Commission (UTC) regulates transporters of biomedical wastes and has issued statewide franchises to Waste Management and Stericycle. Non-residential generators of biomedical wastes (e.g. hospitals, clinics, etc.) can contract with the certified haulers to safely dispose of biomedical wastes.

Existing Management Practices for Biomedical Wastes

There are many sources of biomedical waste. SCC 12.16.060 defines “biomedical waste generator” as a commercial or clinical producer of biomedical waste, including general acute care hospitals, skilled nursing facilities, convalescent hospitals, intermediate care facilities, in-patient care facilities for the developmentally disabled,

chronic dialysis clinics, community clinics, health maintenance organizations, surgical clinics, urgent care clinics, acute psychiatric hospitals, laboratories, medical buildings, physicians' offices and clinics, veterinary offices and clinics, dental offices and clinics, funeral homes, home health care facilities or other persons whose act or process produces biomedical waste. These types of generators typically use a licensed biomedical waste hauler to dispose of their wastes properly. Businesses that generate only small amounts of sharps also use licensed mail order options.

Disposal of sharps from clinics, hospitals and agencies is regulated, but not sharps from individual residents. Residents may collect used hypodermic needles in either labeled sharps containers specifically made for that purpose or in opaque plastic bottles (such as liquid laundry soap or cooking oil bottles) that have a special biohazards label on the bottle. Full sharps containers can be disposed of in a household's regular trash or taken to a Skagit County transfer facility. Information jointly distributed by Skagit County Public Works and Skagit County Public Health provides the label and describes how to properly label and dispose of sharps containers. Households can also use a mail order service for proper disposal of residential sharps.

Planning Issues for Biomedical Wastes

In general, most biomedical wastes generated in Skagit County are currently being handled properly. The primary concern is the improper disposal of sharps from residences, illegal drug users, and small medical, dental, and veterinary facilities. Sharps have been found illegally dumped in vacant lots, in the woods, in parks and in alleys. Sometimes sharps are improperly disposed with solid waste. Occasionally containers of sharps are improperly placed in the recycling system (e.g. in aluminum cans), where they pose a safety risk to the staff at the facilities that sort and process recyclables.

Needle exchanges have been shown to be effective in reducing improper disposal of sharps. There is an existing needle exchange program operating in Skagit County (Phoenix Recovery Services, LLC), although it is not widely publicized.

Biomedical Waste Management Alternatives

Improved disposal practices for sharps could be accomplished through:

- **Special Waste Alternative B – Increased Education:** More education could be conducted to promote safe handling and disposal of sharps. Targeted audiences could include small medical, dental, and veterinary practices. Residential sources could be targeted with the assistance of home healthcare agencies and pharmacies. Needle exchanges could be better publicized. One form of education could be site visits to train staff at targeted facilities. More brochures could be made available at public locations and businesses, and as inserts mailed with garbage or other utility bills. Haulers could also inform their commercial

customers (those that are potential generators of sharps) about safe disposal practices.

- **Special Waste Alternative C – Increased Enforcement:** Increased enforcement activities and larger penalties could be implemented for improper disposal of biomedical waste (although in most cases, the source for the sharps cannot easily be determined).
- **Special Waste Alternative D – Continue and Expand the Needle Exchange:** Funding for the needle exchange lapsed for a few years and then was recently reinstated. Anecdotal evidence indicates that the lack of the needle exchange led to more sharps being improperly disposed in ways that created potential exposure for others. The exchange provides a reliably safe method for disposing of sharps and should be continued. Contingent on the availability of funding, the exchange’s activities could be expanded, but in any case the existing program could be publicized better.

These alternatives are evaluated later in this chapter (see Section 8.6), and the resulting recommendations are shown at the end of this chapter (see Section 8.7).

8.4. DISASTER DEBRIS

Existing Management Practices for Disaster Debris

Potential disasters could include flooding, earthquakes, tsunamis, droughts, forest fires, wind storms and other types of severe weather, landslides, hazardous material incidents, military ordnance incidents, oil spills, pandemics and terrorism. The impacts of these types of disasters could include serious disruptions to the solid waste system and/or the creation of very large quantities of wastes.

The County’s 2013 Comprehensive Emergency Management Plan (CEMP) identifies specific types of disasters and potential responses to these, while also providing a framework to address disasters that cannot easily be anticipated. The CEMP mentions debris removal and solid waste disposal as essential actions to be taken and identifies the Public Works Department as the lead agency for these, but otherwise provides no details as to what actions will be taken. The CEMP is, however, only designed to serve as a “basic plan” or broad framework, with more specific plans serving as supplements to the basic plan.

Emergency Support Function (ESF) #3 of the CEMP provides more detail about the duties and responsibility of Public Works, in particular to “coordinate and provide for the removal and disposal of debris as required.” The Health Department should also be involved in the planning, designation and oversight of debris disposal activities.

ESF #3 further states: “Skagit County no longer has a landfill. All waste is currently transported from the County via truck from fixed sites. Debris from a small to moderate event will be handled through existing means. In an event that would necessitate disposal of large amounts of debris and waste, a temporary landfill location will be determined by the Board of Commissioners. There is currently no agreement, MOU or ILA in place with a hauler and we recognize the gap. Until a long-term contract/agreement can be negotiated with a hauler, each event will be treated as incident specific.”

The website for the Skagit County Department of Emergency Management also stresses the need for proper documentation of damages due to disaster incidents. Proper documentation is one of the more important elements that could be addressed in a FEMA-approved disaster debris management plan.

The Federal Emergency Management Agency (FEMA) encourages state and local governments, Tribal authorities and private non-profit organizations to develop disaster debris management plans. Communities with disaster debris management plans are in a better position to receive the full amount of financial assistance from FEMA and other agencies. Disaster debris management plans can identify those activities and wastes that are eligible for FEMA assistance and ensure that proper documentation occurs to allow the maximum amount of reimbursement.

Planning Issues for Disaster Debris

Skagit County is currently not as prepared as they could be to manage disaster debris effectively and in a manner that could maximize cost reimbursement by FEMA. Recommended steps, such as designating debris staging areas and entering into an ILA or MOU with a hauler, have not yet been conducted. A limited area at the TRS has been permitted for emergency storage, but this is the only area in the County that has been designated.

Management Alternatives for Disaster Debris

The following alternatives, which represent different levels of effort, were considered for disaster debris:

- **Special Waste Alternative E – Designate Staging Areas:** Specific properties could be designated for receiving and temporary staging of disaster debris. These could include County-owned sites as well as sites owned by municipalities or private parties. Areas near construction/demolition debris and other recycling facilities could also be considered.
- **Special Waste Alternative F – Develop a Debris Management Strategy:** A debris management strategy could be developed to provide more details on responsible personnel and debris management activities. This strategy could address debris staging and loading, including procurement of needed equipment. The strategy could allow coordination in advance with recycling facilities and the

waste export and disposal contractor regarding handling capacity, the availability of railcars, and other conditions.

- **Special Waste Alternative G – Develop a FEMA-Approved Debris Management Plan:** A separate, stand-alone disaster debris management plan that meets FEMA standards and requirements could be developed, the cost of which could be in the range of \$100,000 to \$150,000.

These alternatives are evaluated later in this chapter (see Section 8.6), and the resulting recommendations are shown at the end of this chapter (see Section 8.7).

8.5. MODERATE RISK WASTES

Existing Management Practices for Moderate Risk Wastes

Many homes, businesses and farms throughout Skagit County produce small amounts of hazardous wastes. For most of these, the amount of any waste produced falls below regulated quantities and so is classified by the State as a “moderate risk waste” (MRW). Moderate risk waste includes:

- household hazardous wastes, which are wastes produced by residential activities that would be classified as hazardous waste except that by definition they are exempt from regulation, and
- wastes from small-quantity generators, which are wastes from businesses that produce less than 220 pounds of dangerous waste per month or less than 2.2 pounds of extremely dangerous waste per month, and that do not accumulate these wastes in excess of 2,200 or 2.2 pounds, respectively. These businesses are also defined by the U.S. Environmental Protection Agency as “conditionally-exempt small quantity generators” (CESQGs) on the premise that improper handling or disposal of such wastes would cause the CESQG to fall under the full body of hazardous waste regulations.

County code SCC 12.16.210 (moderate risk waste, used oil, and hazardous substance handling) and SCC 12.16.220 (CESQG requirements) addresses the handling and disposal of MRW.

Moderate risk wastes that are generated in Skagit County can be brought to the Household Hazardous Waste (HHW) Facility at the TRS. Hazardous wastes are not accepted at the Sauk and Clear Lake sites, although there are separate drop-off containers at those facilities for car batteries, motor oil and antifreeze.

The HHW Facility is located at the TRS and is open Monday through Friday 10:00 a.m. to 4:00 p.m. and during the first Saturday of the month. Hazardous waste from residential sources is accepted free, while business waste (CESQGs) and non-county

residential waste is accepted for a fee that is based on the cost for disposing the waste. A variety of wastes are handled by this facility, including automotive products, oil-based paint and paint-related materials, lawn and garden chemicals, cleaners and many miscellaneous wastes.

Funding for the HHW Facility is provided by a portion of the tipping fee from the Skagit County solid waste disposal system and a portion of the coordinated prevention grant (CPG) from Ecology. Fees charged to some users (CESQGs and out-of-county customers) pay for the disposal costs of those wastes. CESQGs paid \$5,187 to dispose of wastes in 2015, which was 6.5% of the annual amount of MRW disposal expenses. Fees for CESQGs range from \$1.00-3.00 per aerosol can depending on the contents to \$38.00 per gallon of pesticide, poison, reactive, oxidizer, or organic peroxide.

Much of the material collected at the HHW Facility in 2014 was used oil (220,680 pounds or 56% of the total), oil-based paint (20%), and antifreeze (5%). Flammable liquids, liquid poisons, and mercury-containing fluorescent bulbs each contributed about 4%.

Public education and information about the HHW Facility and hazardous wastes in general is accomplished through brochures and other activities conducted by the Skagit County Public Works Department, including information posted on the County's website, staffing of informational booths, and newspaper inserts. The Skagit County Public Health Department provides some technical assistance to CESQGs regarding proper MRW storage and disposal and information on selecting safer chemical alternatives through the Local Source Control program funded by the Department of Ecology. Public Health Department staff are responsible for the regulation of proper MRW disposal. Health Department funding comes from a tip fee surcharge for Health Department solid waste functions and a portion of the CPG funds from Ecology. The amount of funding that the Health Department receives for regulatory activities and that Public Works receives for the operation of the HHW Facility through the CPG program has decreased over the last few years. Others in Skagit County, including the garbage haulers, and recycling companies also provide information on proper handling and disposal of moderate risk wastes.

Planning Issues for Moderate Risk Wastes

There is a continuing need for education about proper handling and disposal of moderate risk wastes, as evidenced by the occasional customer that brings inappropriate materials to one of the County's transfer facilities, as well as the improper disposal of MRW with wastewater and in garbage cans. There is also a need for ongoing education on waste reduction methods for MRW, including non-toxic alternatives to hazardous chemicals.

The decrease in CPG funds from Ecology will lead to the need for more local funds (from a surcharge on the tipping fee or other sources) in order to continue existing activities.

Management Alternatives for Moderate Risk Wastes

Alternatives for moderate risk wastes include increased educational efforts and alternative disposal methods. For the latter, there are few options that could be used that would pose an improvement over current methods, although manufacturer responsibility mechanisms could address specific types of waste. Improved collection capabilities and, if cost-effective, mobile collection events might also help extend opportunities for proper disposal to a larger number of County residents. For this SWMP, the two alternatives currently being considered at this time are:

- **Special Waste Alternative H – Increased Publicity:** Increased publicity for the HHW Facility would be helpful in preventing improper disposal of potentially hazardous materials. This approach does, however, need to be weighed against the potential effectiveness of more publicity and the availability of funds and staff time for conducting additional outreach and disposing of additional MRW.
- **Special Waste Alternative I – Technical Assistance and Enforcement:** Increased outreach and technical assistance to small quantity generators could help reduce the amount of hazardous material disposed of improperly in the solid waste stream. Increased enforcement of CESQG regulations could also help. These activities could be implemented through the local source control program.

These alternative are evaluated in the next section of this chapter (see Section 8.6), and the resulting recommendations are shown at the end of this chapter (see Section 8.7).

8.6. EVALUATION OF SPECIAL WASTE ALTERNATIVES

Review of Rating Criteria

The special waste alternatives can be evaluated and rated according to several criteria and a decision made as to whether or not to pursue an alternative based on its overall rating. These criteria include:

- consistency with the planning goals shown at the beginning of this chapter and with the goal of diverting more materials from disposal.
- the degree to which an alternative is considered to be technically and politically feasible to implement.
- the cost-effectiveness of an alternative can be assessed based on the presumed total costs of the activity versus its potential benefits and relative to other alternatives or to the existing practices.

Consistency with Solid Waste Planning Goals: None of the alternatives are inconsistent with the planning goals for special wastes, but neither can it be said that the alternatives are necessary for meeting the goals. Most of the alternatives propose activities that exceed current levels of governmental obligations, and the alternatives also potentially do not preserve a good balance between lowest costs and best services. Alternatives B (sharps education), D (continuing and possibly expanding the needle exchange), and I (CESQG technical assistance and enforcement) do a better job of maintaining this balance and so are rated high, while the other alternatives are rated medium for this criteria.

Feasibility: This criteria addresses whether an alternative can be adopted without controversy or legal issues, and if the alternative is technically feasible. Alternative E (designating staging areas for disaster debris), and F (developing a disaster debris strategy), are rated high for feasibility because these activities can be conducted by County Public Works and Health Department staff without significant cost or controversy. Alternatives B (sharps education) and I (CESQG technical assistance and enforcement) are rated high because they can be accomplished by Public Health staff, provided adequate funding is available. Alternative D (continuing and possibly expanding the needle exchange) is considered highly feasible because it is currently being conducted and any expansion is contingent on available funding.

Alternative A is rated medium for feasibility due to the large amount of inter-agency cooperation required. Alternative H (increased publicity for the HHW Facility) is rated medium for feasibility due to the uncertain results of this activity. Alternative C is rated low for feasibility due to the difficulties in identifying the source of illegally-disposed sharps. Alternative G is rated low due to the expense and significant amount of effort required to develop a disaster debris plan that would receive FEMA approval.

Cost Effectiveness: This criteria addresses whether an alternative can be implemented in a cost-effective manner and if it can be implemented without creating an excessive impact on the financial stability of the solid waste system. Four alternatives (D, E, F and I) are rated high for this criteria based on the idea that the cost of the alternative would be relatively low and the benefits would be high. The other alternatives are rated low to medium depending on whether the alternative reduces existing costs or solves an existing problem in a cost-effective manner.

Rating of Alternatives

The evaluation of the alternatives is summarized in the following table.

Table 8-1. Ratings for the Special Waste Alternatives

Alternative	Consistency with Goals	Feasibility	Cost-Effective-ness	Overall Rating
A, Increased enforcement of ACM regulations	M	M	M	M
B, Increased education about sharps disposal	H	H	M	H
C, Increased enforcement for sharps	M	L	L	L
D, Continue and possibly expand needle exchange	H	H	H	H
E, Designate staging areas for disaster debris	M	H	H	H
F, Develop disaster debris strategy	M	H	H	H
G, Develop FEMA-approved disaster debris plan	M	L	L	L
H, Increase publicity for the HHW Facility	M	M	M	M
I, Technical assistance and enforcement of CESQG regulations	H	H	H	H

Rating Scores: H – High, M – Medium, L – Low

8.7. SPECIAL WASTE RECOMMENDATIONS

The following recommendations are being made for special wastes.

High-Priority Recommendations for Special Wastes

- SW1) Increased education should be provided for the proper disposal of sharps.
- SW2) The needle exchange should be continued and possibly expanded.
- SW3) Staging areas will be designated for disaster debris.
- SW4) A disaster debris strategy will be developed.
- SW5) Increased education and technical assistance should be provided for CESQGs.

Medium-Priority Recommendations for Special Wastes

- SW6) Increased enforcement of existing regulations for the proper identification and disposal of asbestos-containing materials is needed, beginning with requiring that all demolition permits include an AHERA inspection or other survey for asbestos.
- SW7) Increased publicity will be provided for the HHW Facility.

Overview of Implementation Responsibilities, Costs and Schedule

The lead agency responsible for implementing most of these recommendations is Skagit County, with assistance from the Cities and others as appropriate to the specific activity. Recommendation SW1 should be implemented by the County (Public Works and the Health Department) and the municipal and private waste collectors. The County (primarily through the Health Department) will need to work with the needle exchange to expand their outreach efforts and assisting with expansion of their activities (contingent on funding being available for this). The County Public Works Department will be responsible for Recommendations SW3 and SW4, with assistance from the Cities. The Health Department will need to take the lead on implementation of Recommendation SW5, with assistance provided by the HHW Facility staff. Recommendation SW6 will need to be a joint effort involving County and City planning departments, with coordination with NWCAA and the Washington State Department of Labor and Industries. Public Works will be primarily responsible for Recommendation SW7.

The costs for these recommendations will consist primarily of staff time and additional expenses for education materials. Recommendation SW2 may require substantial additional funds for the expansion of the needle exchange.

These recommendations should be implemented beginning in 2018, although Recommendation SW3 could be conducted in 2018 and SW4 could begin after the staging areas have been identified (2019).

More details on the implementation of these and other recommendations are shown in the Implementation Plan (see Chapter 10).

CHAPTER 9

ADMINISTRATION AND PUBLIC EDUCATION

9.1. BACKGROUND FOR ADMINISTRATION AND PUBLIC EDUCATION

Introduction

This chapter of the Solid Waste Management Plan (SWMP) addresses the administration and public education activities in Skagit County.

Goals for Administration and Public Education

A number of the goals for this SWMP are applicable to administration and public education:

- maintain and improve a long-term stable solid waste management system.
- meet governmental financial, environmental and public health obligations.
- reflect a commitment to environmental protection and preservation of quality of life.
- provide a basis for equitable allocation of costs among those benefitting from the services, subject to public health considerations.
- assure consistency with the Skagit County Comprehensive Plan and other plans.
- incorporate flexibility to anticipate future needs.
- fully fund and staff the implementation of the SWMP.

9.2. EXISTING ADMINISTRATION AND PUBLIC EDUCATION PROGRAMS

At the federal and state levels, the primary regulatory authorities for solid waste management are the Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology), respectively. Skagit County is in the jurisdiction of the northwest regional office of Ecology, located in Bellevue, Washington. At the local level, the responsibility for solid waste administration and enforcement is shared among several departments of Skagit County and the cities.

Federal Level

At the federal level, the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Solid Waste Disposal Act Amendments of 1980 (42 U.S.C. 6901-6987), is the primary body of legislation dealing with solid waste. Subtitle D of RCRA deals with non-hazardous solid waste disposal and requires the development of a state solid waste management program that outlines the authorities of local, state

and regional agencies. Subtitle D requires that the state program provides that all solid waste is disposed in an environmentally-sound manner.

A provision of RCRA requires that federal facilities comply with substantive and procedural regulations of state and local governments, and so military installations and federal agencies must operate in a manner consistent with local solid waste management plans and policies. There are no major federal installations in Skagit County that are directly involved in solid waste management, however, and solid wastes generated by the few federal offices in the County are handled through local services and programs.

State Level

The State Solid Waste Management Act, Chapter 70.95 the Revised Code of Washington (RCW), provides for a comprehensive, statewide solid waste management program. Chapter 70.95 RCW assigns primary responsibility for solid waste handling to local governments, giving each county, in cooperation with its cities, the task of developing and maintaining a solid waste management plan that places an emphasis on waste reduction and recycling programs. Enforcement and regulatory responsibilities are assigned to cities, counties, or jurisdictional health departments, depending on the specific activity and local preferences.

Chapter 36.58 RCW, Solid Waste Disposal, delineates the counties' rights and responsibilities regarding solid waste management, including the authority to establish solid waste disposal districts (Sections 36.58.100 through 36.58.150) as well as providing special authorization for contracting procedures for solid waste handling facilities (Section 36.58.090). The authority to establish waste collection districts is provided in Chapter 36.58A.

Other relevant State legislation includes Washington's Model Litter Control and Recycling Act. The Model Litter Control and Recycling Act (Ch. 70.93 RCW) and associated State regulations (Ch. 173-310 WAC) generally prohibit the deposit of garbage on any property not properly designated as a disposal site. There is also a "litter fund" that has been created through a tax levied on wholesale and retail businesses, and the monies from this fund are being used for education, increased litter clean-up efforts by the State, and grants to counties for litter and illegal dump clean-up activities. The State conducts litter cleanups on interstate and state highways, while County efforts are focused on local roads.

Additional State rules that impact solid waste management in Skagit County includes the ban on outdoor burning and provisions that provide penalties for littering and illegal dumping in rural areas (RCW 70.93.060).

Local Level

In Skagit County, local agencies involved in solid waste management include the Skagit County Solid Waste System Governance Board, the Skagit County Public Works Department, the Skagit County Health Department, and various departments of the cities. Each entity has a particular area of operations, providing specific services to the residents within that area and enforcing specific rules and regulations. In addition, the Skagit County Solid Waste Advisory Committee (SWAC) plays an important advisory role for the solid waste management system in Skagit County. Local rules that affect solid waste management include ordinances, land use plans and zoning codes.

Skagit County Solid Waste System Governance Board: The Solid Waste System Governance Board (SWSGB) was created by an interlocal agreement dated April 30, 2008 (Skagit County Contract #C20080306, as amended by A20100124), superseding the terms of a previous interlocal agreement (Skagit County Contract #C20040228). The SWSGB is comprised of representatives from the eight municipalities as well as the Board of Skagit County Commissioners and is tasked with approving “significant solid waste decisions” including but not limited to tipping fee adjustments, facility siting, and the annual Solid Waste Division budget.

Skagit County Department of Public Works: The Public Works Department is the agency primarily responsible for solid waste management activities for Skagit County. The Public Works Department operates three solid waste transfer facilities: the Transfer and Recycling Station, the Sauk Transfer Station and the Clear Lake compactor facility. The Public Works Department also operates the Household Hazardous Waste Facility (see Chapter 8 for more details) and manages the waste export contract (see Chapter 7). Staffing includes dedicated personnel, such as a Solid Waste Division Manager, Recycling and Waste Reduction Educator, HHW Facility operator, part-time transfer station attendants, equipment operators, and assistance as needed from the Public Works Director, financial manager and support coordinator.

Skagit County utilizes an enterprise fund for the solid waste management system. The premise of this approach is that expenditures must be matched by revenues from service fees and other appropriate funding mechanisms. Total expenditures by Skagit County for solid waste activities in 2014 were \$9,388,615. The revenues to pay for these expenses came primarily from tipping fees plus a small amount of grant and other funds. Table 9.1 shows more detail on actual and anticipated revenues and expenditures for 2014, 2015 and 2016.

Grant funds are provided through Ecology’s Coordinated Prevention Grant (CPG) program, and these are used by Skagit County for education and household hazardous waste disposal. Unfortunately, the funding this program was cut in half

Table 9-1. Skagit County Solid Waste Budget			
	2014	2015	2016
Revenues			
Tipping Fees;			
Municipal	3,569,819	3,520,000	3,696,000
Private and Individual	5,208,077	4,600,000	4,806,000
Sauk	154,216	160,000	160,000
Clear Lake	41,025	40,000	40,000
Recyclables	84,225	68,500	70,000
MRW Fees	5,650	6,000	6,000
Grants	222,295	241,450	175,000
Build America Bond	170,380	180,506	174,973
Miscellaneous	<u>23,030</u>	<u>15,167</u>	<u>13,000</u>
Total Revenues	9,478,717	8,831,623	9,140,973
Expenses			
Administration	1,153,781	1,486,694	1,467,953
Environmental	1,010,630	212,357	201,158
Education	96,299	104,290	112,731
Transfer Station	6,382,846	6,391,183	6,582,225
Sauk Site	329,573	300,368	295,897
Clear Lake Site	120,062	128,419	150,534
Training	955	10,922	25,027
Hazardous Waste Facility	186,708	193,591	124,109
Litter Crew	<u>107,760</u>	<u>107,493</u>	<u>108,307</u>
Total Expenses	9,388,614	8,962,317	9,067,941
Balance	90,103	-103,694	73,032

Notes: All figures are in dollars. The 2014 figures are the actual amounts, 2015 figures are projected, and the 2016 figures are the budgeted amounts.

in 2015. For the current two-year period (mid-2015 through mid-2017), \$238,910 will be provided to Skagit County from this program.

The stability of the solid waste system in Skagit County has improved significantly over recent years, and the disposal cost for the county reflects this. Skagit County's disposal cost (tipping fee) compares favorably to surrounding counties, as can be seen in Table 9-2.

Several public education activities and programs are currently conducted in Skagit County. Many of these activities are conducted or facilitated by the County's Recycling and Waste Reduction Educator, plus the municipalities and private companies also conduct public education. The Recycling and Waste Reduction

Table 9-2. Tipping Fees for Skagit County and Neighboring Counties	
County	Tipping Fee, \$/ton
Chelan County	\$95
Island County	\$126
San Juan County	\$294
Skagit County	\$92
Snohomish County	\$109
Whatcom County	\$97-\$116

Notes: All figures are in dollars, rates are effective January 2015.

Educator gives presentations at schools and to civic groups. Information (written and verbal) is also distributed at fairs and other events about recycling, alternatives to toxic chemicals and reducing consumption. The Educator conducts composting workshops, administers the Master Composter/Recycler Volunteer Program, and writes a bimonthly column in the Skagit Valley Herald Home and Garden section on topics of recycling, waste reduction, composting, and household hazardous waste.

In 2014 and 2015, the Recycling and Waste Reduction Educator conducted 60 presentations to approximately 5,000 students at 18 different schools. A booth was staffed at 24 fairs and events where over 4,500 contacts with the public were made. A total of twelve composting workshops were conducted in 2015, including the WSU Master Gardener Program and the WSU Cultivating Success Program. Over 200 participants learned how to turn waste into soil amendments at these workshops, the majority of which are advertised in all of the local newspapers.

The Master Composter/Recycler Volunteer program provides an excellent opportunity for citizens to assist with waste diversion projects and help spread the word. Twelve Master Composter/Recyclers volunteered 480 hours in 2015. These hours were spent helping to staff the Master Composter/Recyclers' booth at fairs and festivals, giving workshops, and maintaining compost demonstration sites and worm recycling boxes. Most importantly, the Master Composter/Recyclers network within their communities and set an example for others. The Solid Waste Division offers a training class for new Master Composter/Recyclers each year.

Compost demonstration sites are located at Discovery Garden, Mount Erie School Community Garden, and the Anacortes 29th Street Community Garden. These sites provide an educational opportunity for backyard composting and related topics.

Illegal dumping on public property is addressed through the Community Litter Cleanup Program, which is a three-way partnership between the Sheriff's Office, the Health Department and the Solid Waste Division. The Solid Waste Division provides a crew supervisor, administrative direction, supplies and equipment. The Sheriff's Office provides a workforce of people sentenced to community service by the court system. The Health Department monitors litter complaints and informs Solid Waste about problem spots. The litter crew has been funded by two-year grants (\$62,000 for July 1, 2015 through June 30, 2017) from the Community Litter Cleanup Program (CLCP) administered by Ecology.

The goal of the Litter Cleanup Program is to address the issue of litter and illegal dumping of trash along County roads and public property, such as boat launches, parks and other public access areas. For the 2015-2017 grant cycle, the Litter Crew is projected to utilize 6,800 hours of community service labor per year. The crews are projected to annually clean up litter on 900 miles of roadway shoulders, clean up 750 illegal dumpsites and collect 80 tons of garbage and litter.

The Skagit County Solid Waste Division provides staffing and support for the Solid Waste Advisory Committee (SWAC). The SWAC assists with solid waste administration and regulation by providing a vehicle for public input and by serving in an important advisory capacity (see Section 1.6 and Table 1.2 for more details).

The Public Works Department is responsible for ensuring that the Skagit County Solid Waste Management Plan is periodically updated. They also ensure that the county maintains a viable solid waste disposal system, including adherence to County Code Chapter 12.18, Solid Waste Disposal System, which includes flow control issues throughout the county.

Skagit County Health Department: The Health Department is the local enforcement agency for County and State regulations regarding solid waste activities for both the incorporated and unincorporated areas of Skagit County (except for flow control issues for non-permitted facilities). County regulations pertaining to solid waste activities are primarily contained in Ch. 12.16 and 12.18 of the County Code. The Health Department is the responsible local authority (per RCW 70.95.160) for issuing permits for solid waste facilities and enforcing against illegal solid waste handling or disposal activities. The Health Department also inspects and monitors all permitted solid waste facilities and closed landfills. The Health Department's solid waste activities are funded from several sources, including a surcharge on the solid waste disposal tip fee, state grants, permit fees and fines.

The Health Department conducted contract work with Ecology on their Site Hazard Assessment (SHA) program through mid-2015. SHA funding was \$85,361 during 2013-2015. Approximately 25% of that funding was used for initial investigation of complaints regarding potentially-contaminated sites. The SHA program funding has

been eliminated for mid-2015 through mid-2017. The CPG program funding has been reduced from \$157,740 for the previous two-year period (mid-2013 through mid-2015) to \$97,295 for mid-2015 through mid-2017. CPG funding partially covers solid waste enforcement activities such as permitting and complaint investigation. The Local Source Control Program (LSCP) contract with Ecology provides funding for technical assistance to conditionally exempt small quantity generators (CESQGs) regarding moderate risk waste (MRW) storage and disposal in addition to stormwater issues. As part of the LSCP, businesses can choose to become EnviroStars certified, where businesses are given recognition for following good practices in these areas.

The permit process for solid waste facilities requires an application and approval for new sites, and an annual review and renewal for existing permits. The application form requires information about the types of waste to be processed or disposed, environmental conditions of the area and an operations plan that must be approved by the Health Department.

The Health Department investigates and resolves complaints concerning illegal solid waste handling and disposal throughout the county. This can range from dealing with accumulation issues at individual households to enforcement actions for businesses illegally handling or disposing of large quantities of solid or moderate risk wastes.

Skagit County Planning Department: The Planning Department is involved in solid waste management primarily through permitting and zoning activities. The Planning Department issues land use and building permits, conducts the SEPA and/or EIS process where needed, and reviews critical area checklists. The Planning Department is also the lead agency for maintaining the County's Comprehensive Plan, which guides land use (see below). Interdepartmental cooperation between the various county and city departments dealing with land use and permitting issues helps ensure a cohesive approach to development within the County. This SWMP is considered to be a "functional plan" of the Comprehensive Plan.

The County's Comprehensive Plan, adopted June 1, 1997, and most recently revised in 2016, provides guidance pertaining to land use issues and so can affect decisions such as siting of solid waste facilities. Several of the cities have also adopted land use plans that addresses similar issues within their boundaries.

Solid waste is specifically addressed in the Skagit County Comprehensive Plan in the chapters dealing with utilities (Chapter 9) and capital facilities (Chapter 10). Relevant goals and policies from the County's land use plan are shown in Table 9-3.

Cities: The Public Works or Sanitation Departments for the four larger cities in Skagit County (Anacortes, Burlington, Mount Vernon and Sedro-Woolley) are

Table 9-3. Goals and Policies from Skagit County's Comprehensive Plan	
Relevant Goals and Policies from County's Comprehensive Plan	
Utilities Chapter	
Goal 9A-6	Protect environmental quality and public health in Skagit County through effective practices, education, regulations, and economic incentives.
Policies	
9A-6.1	Waste Reduction – The county shall endeavor to reduce per capita waste production by changing consumer and industrial practices.
9A-6.2	Recycling – The county shall encourage recycling.
Capital Facilities	
GMA Goal	Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.
Policies	
CPP 12.4	Lands shall be identified for public purposes, such as: utility corridors, transportation corridors, landfill, sewage treatment facilities, recreation, schools, and other public areas. The County shall work with the state, cities, communities and utility providers to identify areas of shared need for public facilities.
CPP 12.13	A county-wide recycling program shall be developed.

Source: From the Skagit County Comprehensive Plan.

GMA = Growth Management Act, CPP = Countywide Planning Policy.

involved in solid waste management in several ways; by managing contracts for garbage collection and recycling (for Burlington), operating collection systems for garbage and recycling (for Sedro-Woolley), or a combination of both (for Anacortes and Mount Vernon). The four smaller cities (Concrete, Hamilton, La Conner, and Lyman) are not extensively involved in solid waste management activities, although La Conner operates a composting site that accepts yard debris.

Public education activities conducted by the cities include a semi-annual mailing by Mount Vernon, monthly tips by Burlington in the utilities newsletter, and quarterly and annual informational mailings by Anacortes. The four largest cities maintain websites with extensive information about recycling and composting programs.

Private Efforts: Waste Management includes recycling information in new customer packets, publishes annual calendars and provides other educational materials. Other companies generally promote their services as appropriate.

Tribal Councils: As mentioned in Chapter 1, there are three Tribes and one Tribal community that are located in Skagit County (Swinomish Tribal Community, and the Samish, Sauk-Suiattle, and Upper Skagit Tribes). Each Tribe is governed by a Tribal

Council or Committee made up of elected members. The Councils hold regular meetings and handle the business affairs of the Tribes. These Tribes are not currently active in administration and enforcement issues for solid waste management, but they have the option of exercising solid waste management authority over tribal lands. In doing so, the Tribes would need to abide by federal regulations and policies outlined in the Resource Conservation and Recovery Act (RCRA).

9.3. PLANNING ISSUES FOR ADMINISTRATION AND PUBLIC EDUCATION

Staffing Needs

Additional staffing (a Recycling Coordinator) is needed to implement several of the recommendations in this SWMP.

Consistency of Messaging

The various public education messages distributed by Skagit County, the cities and towns, and Waste Management are not always consistent or readily available on websites. A coordinated effort to ensure that residents and businesses can easily find consistent information on recycling and other solid waste issues would improve participation in recycling and other programs.

More Public Education and Outreach would be Beneficial

Comments from various sources have indicated that more outreach is needed to inform residents and businesses about available services. This is particularly needed for:

- the mixed organics program operated by Waste Management (see also Chapter 5),
- recycling programs in all areas,
- transfer station customers with loads of construction debris and other materials that could be recycled or composted (see also Chapter 7), and
- information about recycling opportunities that could be provided to people in special circumstances, including people who rent roll-off containers for construction or remodeling projects.

Periodic Rate Adjustments Needed

The current solid waste system has maintained a low tipping fee but has expended reserve funds as a result. A tipping fee increase may be necessary to restore a reserve funds to a prudent level and also to create an equipment replacement fund.

Furthermore, periodic rate reviews and adjustments may be needed to keep revenues in line with inflationary increases.

In addition, the Health Department may need to increase the surcharge on the tipping fee in order to continue to address the enforcement and education activities dealing with solid waste handling and illegal dumping as the State grants and contracts continue to decrease.

Illegal Dumping

Illegal dumping is an ongoing problem in Skagit County. Illegal dumping is addressed through enforcement of State laws regarding solid waste disposal and Skagit County ordinances concerning solid waste disposal and/or littering.

County Code

SCC Chapter 12.18 potentially needs to be revised to provide for waste from Sinclair Island to be taken out of county (because it may not be practical to require this waste be brought to the TRS). SCC 12.16 may also need revisions to update applicable references to the Washington Administrative Code.

Flow Control Enforcement

There is evidence that waste is potentially being removed from the County in violation of SCC Chapter 12.18. If needed, applicable city and town codes could be revised concerning enforcement and penalty provisions for flow control. It may also be appropriate for the County and cities and towns to consider better coordination concerning flow control enforcement.

County Procurement Practices

The Skagit County Climate Action Plan, adopted in 2010, addresses procurement practices in depth and made several recommendations that could reduce wastes and provide cost savings for the County (see Policies C-1, C-2, C-3 and C-4 of the Climate Action Plan). These recommendations are not being actively pursued at this time due to the lack of a Sustainability Administrator and Sustainability Coordinator.

Long-Term Funding

The County may face the potential for financial constraints due to the reliance on tipping fees to fund some of the recycling programs. Ultimately, should recycling become “too successful,” funding for these programs would diminish due to shrinking waste quantities. Relying on the tipping fee for recycling funds may not be the best long-term strategy.

Regional Opportunities

There may be opportunities for regional efforts involving the neighboring counties (primarily Snohomish, San Juan, Whatcom and Island Counties). Many of these opportunities are in transfer and disposal systems but opportunities may exist for other activities as well. One possibility is an interlocal agreement with Whatcom County for the Diablo and Newhalem area, for Skagit County to take on additional

responsibilities for the waste management system in that area (see Alternative D, Section 9.4, for more details).

Public Education in the Unincorporated Areas

Garbage haulers are required by State law to distribute public education materials annually (WAC 480-70-361(7)). At a minimum, these notices must be distributed to current customers (for garbage and/or recycling) in the certificate (franchise) areas and must describe all of the service and options available for waste collection and recycling (including mini-can rates for residential customers). If a brochure is distributed by a local government directly to the public instead, then the hauler does not need to distribute a brochure as long as the minimum information described above is included. If a local government provides a brochure to the hauler, then the hauler must distribute those, and in this case the brochure may also address commercial recycling and waste reduction options offered by other companies and agencies. Brochures developed and distributed by the hauler are not required to present information on recycling and waste reduction programs offered by others.

9.4. ALTERNATIVE STRATEGIES FOR ADMINISTRATION AND PUBLIC EDUCATION

The following alternatives were considered for new or expanded administration and public education activities. The listing of an alternative in this section does not mean that it is considered feasible or desirable, nor that is recommended (see Section 9.6 for the recommendations).

Alternative A – Hire a Recycling Coordinator

Additional staffing is needed to accomplish the recommendations shown in this SWMP. A new Recycling Coordinator could conduct increased efforts in several areas, including conducting commercial and multi-family recycling outreach, working with other departments to implement procurement policies, implementing several of the waste reduction recommendations and assisting with other activities. Hiring a new Recycling Coordinator would allow the existing Recycling and Waste Reduction Educator to continue to focus on general outreach activities and important new topics such as food waste reduction.

The role of a Recycling Coordinator could be filled by a part-time or full-time position. The recommendations made by this plan that are contingent on this person could conceivably be fulfilled by a part-time employee, although a full-time employee could also take on other duties and serve to further improve recycling and other programs in Skagit County. It is also possible that this position could be filled by an intern, AmeriCorps volunteer or similar person, but a permanent full-time or part-time staff person would be more effective in the long term.

Alternative B – Create a Task Force to Address Consistent Messaging

A temporary or permanent task force could be created to address issues with consistent public education messages, and to address methods for improving the ease of accessing that information. The task force could include representatives from Skagit County (from the Solid Waste Division and Public Health Department), the four largest cities, Waste Management and, at their option, the four towns. This group could also be a subcommittee of the SWAC.

Alternative C – Periodic Rate Reviews and Adjustments

Reserve funds are currently exhausted and should be restored to a prudent level (10 to 25% of operating expenses) to ensure continued financial stability. A rate review could be conducted to determine the rate needed to restore the reserve funds to an appropriate level, create an equipment replacement fund, and to provide the funds necessary to implement the recommendations of this SWMP. This rate review could be conducted every three to four years to provide the basis for a periodic rate adjustment. The approximate cost of a rate review such as this would be about \$25,000 to \$35,000.

Alternative D – Interlocal Agreement with Whatcom County

Skagit and Whatcom Counties could enter into an interlocal agreement to allow the Diablo and Newhalem area to be included in the Skagit County solid waste system. This area of Whatcom County is isolated from the rest of Whatcom County and can only be accessed through Skagit County. The solid waste from this area is already being taken to Skagit County solid waste facilities by Waste Management and by self-haulers using the Sauk Transfer Station. Taking on more responsibility for this area would, however, create significant costs for Skagit County. Additional costs would be created by the need to manage MRW from this area, provide public education, and address illegal dumping and solid waste permitting needs.

Alternative E – Enforcement of Flow Control

If needed, the four incorporated cities could revise applicable city codes concerning flow control enforcement. It may also be appropriate for the County and cities and towns to consider better coordination concerning flow control enforcement. For example, flow control provisions could also be noted in public bid documents and in permits.

Alternative F – County Code

Revisions could be considered to the Skagit County Code to recognize the unique situation of Sinclair Island (as it relates to flow control) and to potentially update outdated references.

9.5. EVALUATION OF ADMINISTRATION AND PUBLIC EDUCATION ALTERNATIVES

Review of Rating Criteria

The above alternatives can be evaluated and rated according to several criteria and a decision made as to whether to pursue an alternative or not based on the overall rating for each. These criteria include:

- consistency with the planning goals shown at the beginning of this chapter and with the goal of diverting more materials from disposal.
- the degree to which an alternative is considered to be technically and politically feasible to implement.
- the cost-effectiveness of an alternative can be assessed based on the presumed total costs of the activity versus its potential benefits and relative to other alternatives or to the existing practices.
- the potential for additional diversion of materials from the waste disposal system (as a percentage of the waste stream).

Consistency with Solid Waste Planning Goals: All of these alternatives are consistent with the planning goals, although Alternative D (the interlocal agreement with Whatcom County) is consistent with only one of the applicable planning goals (common commitment to environmental protection and preservation of quality of life) and Alternative F (updating the County code) is relatively neutral with respect to the goals.

Feasibility: All of these alternatives would be challenging in various ways to implement. Alternative A, hiring a Recycling Coordinator, would require approval for the new position. For Alternative B, a task force on public education, it may be difficult to get representatives involved from the necessary organizations and then implement the ideas that are agreed upon by the task force. The cost of Alternative C, a rate review and adjustment, may be challenging to justify but is necessary. Alternative D, the interlocal agreement with Whatcom County, may be politically challenging, especially if it proves difficult to justify for Skagit County. For Alternative E, enforcement of flow control, it would be challenging to adopt revisions to city codes as well as justify enforcement actions against offenders. Alternative F, updating the County code, wouldn't be that difficult but would require an investment in staff and commission time.

Cost-Effectiveness: Alternative A, hiring a Recycling Coordinator, could be cost-effective in the sense that recycling leads to disposal cost savings for the participants. Alternative B, a task force on public education, would be cost-effective if it led to more effective approaches. For Alternative C, a rate review and adjustment, the concept of cost-effectiveness is difficult to apply. Alternative D, the interlocal agreement with Whatcom County, would lead to additional costs for Skagit County

without an off-setting benefit. Alternative E, enforcement of flow control, would possibly be cost-effective in the sense that expenses for enforcement activities may possibly be offset by increased tipping fees and other revenues. Cost-effectiveness is not a factor for Alternative F.

Diversion Potential: Both Alternatives A, hiring a Recycling Coordinator, and B, a task force on public education, could lead to significant additional amounts of waste diversion. For Alternative C, a rate review and adjustment, the concept of diversion potential is difficult to apply. Alternative D, the interlocal agreement with Whatcom County, would not lead to significant additional waste diversion in the affected area. Alternative E, enforcement of flow control, could lead to significant increased diversion potential by providing a greater financial incentive to waste generators. Diversion potential is not a factor for Alternative F, cleaning up the County code.

Rating of Alternatives

The evaluation of the alternatives is summarized in the following table.

Table 9-4. Ratings for the Administration and Public Education Alternatives					
Alternative	Consistency with Goals	Feasibility	Cost-Effective-ness	Diversion Potential	Overall Rating
A, Hire a Recycling Coordinator	H	M	H	H	H
B, Task force for public education	H	M	H	M-H	H
C, Rate review and adjustment	H	M	M	M	M
D, Interlocal agreement with Whatcom County	M	L	L	L	L
E, Enforce flow control	H	M	H	H	H
F, County Code	M	M	NA	NA	M

Rating Scores: H – High, M – Medium, L – Low, NA – Not Applicable

9.6. ADMINISTRATION AND PUBLIC EDUCATION RECOMMENDATIONS

The following recommendations are being made for administration and public education programs in Skagit County.

High-Priority Recommendations

- A&PE1) Skagit County and the Cities will create a task force to address consistency and accessibility for public education.
- A&PE2) Skagit County will hire a Recycling Coordinator.
- A&PE3) Skagit County and the cities and towns will continue to implement and enforce flow control provisions of the Skagit County Code and/or the respective municipal codes of the cities and towns.
- A&PE4) Skagit County and the cities and towns will convene a staff workgroup to develop education and implementation strategies for the enforcement of flow control provisions of the respective municipal codes of the County, cities and towns.

Medium-Priority Recommendations

- A&PE5) Rate reviews will be conducted periodically for disposal rates to ensure adequate funds are being collected to support solid waste programs and mandates.
- A&PE6) Consider possible revisions to the Skagit County Code to potentially exempt Sinclair Island from otherwise applicable flow control requirements, and/or to update applicable references.

Overview of Implementation Responsibilities, Costs and Schedule

The lead agency responsible for most of these recommendations is the Skagit County Public Works Department, with assistance from the Health Department for Recommendations A&PE5 and A&PE6. For Recommendation A&PE3, the Cities will need to take the lead on flow control enforcement within their jurisdictions.

The cost for Recommendation A&PE1 will consist largely of staff time, although the production of new public education materials (including changes to websites) may be necessary. The cost for Recommendation A&PE2 will be up to \$75,000 (including benefits and overhead). The estimated cost of the rate review (Recommendation A&PE5) will be about \$25,000 to \$35,000 for each year it is conducted. The costs for Recommendations A&PE3, A&PE4 and A&PE6 will largely consist of staff time.

The implementation of Recommendation A&PE1 should begin in 2016, and Recommendations A&PE2, A&PE4 and A&PE6 should be implemented in 2018. The rate review (Recommendation A&PE5) should be conducted in 2018 and again after the waste export contract has been re-bid (in 2023).

More details on the implementation of these and other recommendations are shown in the Implementation Plan (see Chapter 10).

IMPLEMENTATION PLAN

10.1. INTRODUCTION

This chapter lists all of the recommendations from previous chapters and presents a plan to implement the recommendations. These recommendations are intended to guide decision-making activities for Skagit County for the next six years, while also providing direction for the next 20 years. Implementation of individual program elements will be accomplished through annual budgets and contracts.

The recommendations for each element of the solid waste system are grouped according to priority level (high, medium and low), but otherwise are not shown in any particular order within each group. The priority levels are intended to guide future implementation activities and are based on the evaluation of the underlying alternatives (see specific chapters for more details).

10.2. WASTE REDUCTION RECOMMENDATIONS

The following recommendations are being made for waste reduction programs (see Chapter 3 for more details):

High-Priority Recommendations for Waste Reduction

- WR1) A program educating residents and businesses about avoiding food waste will be implemented.
- WR2) The availability of volume-based rates will be publicized by the County, Cities and waste collectors.
- WR3) Options for clothing reuse and recycling will be promoted.
- WR4) Skagit County will explore the possibilities for a charitable organization to collect reusable materials at the Skagit County Transfer Station.
- WR5) Skagit County will distribute videos that provide waste reduction tips.

Medium-Priority Recommendations for Waste Reduction

- WR6) A county-wide ban on yard debris disposal will be considered.
- WR7) Smart shopping will be promoted.
- WR8) Fix-it workshops will be encouraged and promoted.

10.3. RECYCLING RECOMMENDATIONS

The following recommendations are being made for recycling programs (see Chapter 4 for more details):

High-Priority Recommendations for Recycling

- R1) Skagit County's goal for recycling and composting is 65%.
- R2) Skagit County will adopt a minimum service level ordinance requiring all waste collection subscribers to also receive curbside recycling service.
- R3) Skagit County will consider adopting requirements for C&D recycling.
- R4) Skagit County will support product stewardship programs as appropriate.

Medium-Priority Recommendations for Recycling

- R5) Consideration will be given to increasing curbside recycling frequency to weekly in all areas.
- R6) Disposal bans will be considered for specific materials where alternative handling methods provide improved management of these materials.
- R7) Washington State should enact a bottle bill to divert glass away from curbside recycling programs.

Low-Priority Recommendations for Recycling

- R8) Mandatory commercial recycling should be examined as a possible program to be implemented county-wide.

10.4. ORGANICS RECOMMENDATIONS

The following recommendations are being made for organics collection programs (see Chapter 5 for more details):

High-Priority Recommendations for Organics

- O1) More promotion must be conducted for the mixed organics collection services.

Medium-Priority Recommendations for Organics

- O2) Contaminated commercial setouts should be rejected by the collection companies.
- O3) Compostable plastics should not be collected in the mixed organics collection system.
- O4) The cities, towns and county will promote the use of compost.

10.5. WASTE COLLECTION RECOMMENDATIONS

The following recommendations are being made for waste collection programs (see Chapter 6 for more details):

Medium-Priority Recommendations for Waste Collection

- WC1) More promotion should be conducted for drop box customers to source-separate recyclable and compostable materials.
- WC2) The cities and Waste Management should consider switching all residential garbage collection services to every-other-week service.

10.6. TRANSFER AND DISPOSAL RECOMMENDATIONS

The following recommendations are being made for transfer and disposal programs (see Chapter 7 for more details):

High-Priority Recommendations for the Transfer System

- T1) Skagit County and the City of Sedro-Woolley should evaluate the benefits and impacts of potentially closing the Clear Lake Compactor Site and possibly moving those operations to the Sedro-Woolley Recycling Facility, and this change may be implemented if mutually agreeable.
- T2) Transfer station customers will be encouraged to bring source-separated materials to other facilities for recycling or composting.

High-Priority Recommendations for Waste Export and Disposal

- D1) Skagit County will begin preparing a Request for Proposals for a new waste export and disposal contract in 2021.

Medium-Priority Recommendations for Waste Export and Disposal

- D2) Any future proposals for waste conversion facilities should be evaluated on a case-by-case basis for consistency with this Solid Waste Management Plan and existing programs; the waste export and disposal agreement then in effect; applicable siting, zoning, environmental and health regulations; and other criteria appropriate to the proposed system.

Low-Priority Recommendations for Waste Export and Disposal

- D3) Any future proposals for additional inert or limited purpose landfills should be evaluated on a case-by-case basis for demonstrated need and benefit to the citizens of Skagit County; consistency with this Solid Waste Management Plan; and applicable siting, zoning, environmental and health regulations.

10.7. SPECIAL WASTE RECOMMENDATIONS

The following recommendations are being made for special waste programs (see Chapter 8 for more details):

High-Priority Recommendations for Special Wastes

- SW1) Increased education should be provided for the proper disposal of sharps.
- SW2) The needle exchange should be continued and possibly expanded.
- SW3) Staging areas will be designated for disaster debris.
- SW4) A disaster debris strategy will be developed.
- SW5) Increased education and technical assistance should be provided for CESQGs.

Medium-Priority Recommendations for Special Wastes

- SW6) Increased enforcement of existing regulations for the proper identification and disposal of asbestos-containing materials is needed, beginning with requiring that all demolition permits include an AHERA inspection or other survey for asbestos.
- SW7) Increased publicity will be provided for the HHW Facility.

10.8. ADMINISTRATION AND PUBLIC EDUCATION RECOMMENDATIONS

The following recommendations are being made for administration programs (see Chapter 9 for more details):

High-Priority Recommendation for Administration and Public Education

- A&PE1) Skagit County and the Cities will create a task force to address consistency and accessibility for public education.
- A&PE2) Skagit County will hire a Recycling Coordinator.
- A&PE3) Skagit County and the cities and towns will continue to implement and enforce flow control provisions of the Skagit County Code and/or the respective municipal codes of the cities and towns.
- A&PE4) Skagit County and the cities and towns will convene a staff workgroup to develop education and implementation strategies for the enforcement of flow control provisions of the respective municipal codes of the County, cities and towns.

Medium-Priority Recommendations for Administration and Public Education

- A&PE5) Rate reviews will be conducted periodically for disposal rates to ensure adequate funds are being collected to support solid waste programs and mandates.

- A&PE6) Consider possible revisions to the Skagit County Code to potentially exempt Sinclair Island from otherwise applicable flow control requirements, and/or to update applicable references.

10.9. SIX-YEAR IMPLEMENTATION SCHEDULE

The proposed implementation schedule is shown in Table 10-1. It should be noted that the recommendations have been abbreviated to fit better into this table.

10.10. IMPLEMENTATION RESPONSIBILITIES

Skagit County and the cities and towns are primarily responsible for most of the recommendations made in this Solid Waste Management Plan (SWMP), but that responsibility is shared with others as appropriate to the nature of the recommended activity. Implementation responsibilities for the recommended activities are summarized in Table 10-2.

10.11. FUNDING STRATEGY

The recommended programs will be funded through garbage rates, tipping fees, other user fees and State grants (CPG funds). A summary of the funding sources for the recommended programs is shown in Table 10-3.

As indicated in Table 10-3, garbage rates will be used to fund solid waste collection, curbside recycling and commercial recycling programs. Tipping fees will be the primary source of funds for waste reduction, transfer, disposal, administration, education and some of the recycling programs. Special user fees will fund some of the recycling and special waste programs. The State coordinated prevention grant funding program (CPG grants) will be used for MRW, enforcement, and recycling and waste reduction education programs, with additional funds contributed from tipping fees. Local source control funds will be used for technical assistance.

Solid waste planning guidelines require that this SWMP include a six-year construction and capital acquisition strategy for recommended activities, but no significant construction or capital acquisition expenses are required for this plan. Recommendation T1, which states that Skagit County and the City of Sedro-Woolley may evaluate the benefits and impacts of potentially closing the Clear Lake Compactor Site and moving those operations to the Sedro-Woolley Recycling Facility, may eventually lead to construction and capital costs for the Sedro-Woolley site, but the decision to proceed with that approach has not been made yet.

Table 10-1. Implementation Schedule for Recommendations

Recommendation	2018	2019	2020	2021	2022	2023
Waste Reduction						
WR1) Education program for avoiding food waste.						
WR2) Publicize volume-based rates.						
WR3) Promote clothing reuse and recycling.						
WR4) Explore collection of reusable materials at the Transfer Station.						
WR5) Distribute videos for waste reduction tips.						
WR6) Consider county-wide ban on yard debris disposal.	X					
WR7) Promote smart shopping.						
WR8) Promote fix-it workshops.						
Recycling						
R1) Recycling and composting goal is 65%.						
R2) Adopt ordinance for all waste subscribers to have curbside recycling.			X			
R3) Consider adopting requirements for C&D recycling.			X			
R4) Support product stewardship programs as appropriate.						
R5) Consider increasing curbside recycling frequency to weekly in all areas.			X			
R6) Consider disposal bans for specific materials.						
R7) Washington State should enact a bottle bill to divert glass.			X			
R8) Examine mandatory commercial recycling.						
Organics						
O1) More promotion for mixed organics collection.						
O2) Contaminated commercial setouts should be rejected.						
O3) Do not collect compostable plastics with mixed organics.						
O4) Promote the use of compost.						
Waste Collection						
WC1) More promotion for drop box customers to source-separate recyclable and compostable materials.						
WC2) Consider switching all residential garbage collection to every-other-week.						

X – indicates a deadline or a singular event. Shading indicates ongoing activities.
Recommendations have been abbreviated to fit into table.

Table 10-1. Implementation Schedule for Recommendations, continued

Recommendation	2018	2019	2020	2021	2022	2023
Transfer and Disposal						
T1) Evaluate benefits and impacts of closing Clear Lake and moving the operations to the Sedro-Woolley Facility.	X					
T2) Encourage transfer station customers to bring recyclables elsewhere.						
D1) Prepare an RFP for a new waste export contract.				X		
D2) Any future proposals for waste conversion facilities should be evaluated on a case-by-case basis.						
D3) Any future proposals for additional inert or limited purpose landfills should be evaluated on a case-by-case basis.						
Special Wastes						
SW1) Increased education should be provided for the proper disposal of sharps.						
SW2) Needle exchange should be continued and possibly expanded.						
SW3) Staging areas will be designated for disaster debris.	X					
SW4) A disaster debris strategy will be developed.		X				
SW5) Increased education and technical assistance for CESQGs.						
SW6) Increased enforcement of existing regulations for asbestos.						
SW7) Increased publicity for HHW Facility.						
Administration						
A&PE1) Create a task force to address consistency and accessibility for public education.						
A&PE2) Hire a Recycling Coordinator.	X					
A&PE3) Skagit County and the cities will continue to enforce flow control.						
A&PE4) Staff workgroup for education and implementation strategies for flow control enforcement.		X				
A&PE5) Conduct disposal rate reviews periodically.	X					X
A&PE6) Potentially update Skagit County Code.	X					

X – indicates a deadline or a singular event. Shading indicates ongoing activities. Recommendations have been abbreviated to fit into table.

Table 10-2. Implementation Responsibilities for Recommendations

Recommendation	Skagit County	Cities, Towns	Health Dept.	Waste Haulers	Others
Waste Reduction					
WR1) Education for avoiding food waste.	1	1			
WR2) Publicize volume-based rates.	1	2		2	
WR3) Promote clothing reuse and recycling.	1	2			
WR4) Explore collection of reusable materials at the Transfer Station.	1				
WR5) Distribute videos for waste reduction tips.	1				
WR6) Consider county-wide ban on yard debris disposal.	1				
WR7) Promote smart shopping.	1	2			
WR8) Promote fix-it workshops.	1	2			
Recycling					
R1) Recycling and composting goal is 65%.	1				
R2) Adopt ordinance for all waste subscribers to receive curbside recycling.	1				
R3) Consider adopting requirements for C&D recycling.	1	1			
R4) Support product stewardship programs as appropriate.	1				
R5) Consider increasing curbside recycling frequency to weekly in all areas.	1	1		1	
R6) Consider disposal bans for specific materials.	1	2			
R7) Washington State should enact a bottle bill to divert glass.					1, WA State
R8) Examine mandatory commercial recycling.	1	1			
Organics					
O1) More promotion for mixed organics collection.	2	2		1	
O2) Contaminated commercial setouts should be rejected.				1	
O3) Do not collect compostable plastics with mixed organics.				1	
O4) Promote the use of compost.	1	1			
Waste Collection					
WC1) More promotion for drop box customers to source-separate recyclable and compostable materials.		1		1	
WC2) Consider switching all residential garbage collection to every-other-week.		1	2	1	

1 – indicates primary responsibility. 2 – indicates secondary responsibility. Recommendations have been abbreviated to fit into table.

Table 10-2. Implementation Responsibilities for Recommendations, continued

Recommendation	Skagit County	Cities, Towns	Health Dept.	Waste Haulers	Others
Transfer and Disposal					
T1) Evaluate benefits and impacts of closing Clear Lake and moving the operations to the Sedro-Woolley Facility.	1	1, Sedro-Woolley	2		
T2) Encourage transfer station customers to bring recyclables elsewhere.	1				2, Recycling facilities
D1) Prepare RFP for waste export contract.	1				
D2) Any future proposals for waste conversion facilities should be evaluated on a case-by-case basis.	1				
D3) Any future proposals for additional inert or limited purpose landfills should be evaluated on a case-by-case basis.	1				
Special Wastes					
SW1) Increased education should be provided for the proper disposal of sharps.	2		1		
SW2) Needle exchange should be continued and possibly expanded.			1		
SW3) Staging areas will be designated for disaster debris.	1	2	2		
SW4) A disaster debris strategy will be developed.	1		2		
SW5) Increased education and technical assistance for CESQGs.	2		1		
SW6) Increased enforcement of existing regulations for asbestos.	1	1			1 (L&I, NWCAA)
SW7) Increased publicity for the HHW Facility.	1				
Administration					
A&PE1) Create a task force to address consistency and accessibility for public education.	1	1		2	
A&PE2) Hire a Recycling Coordinator.	1				
A&PE3) Skagit County and the cities will continue to enforce flow control.	1	1			
A&PE4) Staff workgroup for education and implementation strategies for flow control.	1	2			
A&PE5) Conduct disposal rate reviews periodically.	1		2		
A&PE6) Potentially update Skagit County Code.	1		2		

1 – indicates primary responsibility. 2 – indicates secondary responsibility. Recommendations have been abbreviated to fit into table.

Table 10-3. Funding Strategies for Recommendations					
Project or Activity	Garbage Rates	Tipping Fees	Special User Fees	Grants	Other Funding as Available
Waste Reduction		X		X	X
Recycling and Organics	X	X	X	X	X
Solid Waste Collection	X				
Transfer and Disposal		X			
Special Wastes		X	X	X	X
Administration and Education		X		X	

10.12. TWENTY-YEAR IMPLEMENTATION SCHEDULE

It is anticipated that programs and facilities in Skagit County will generally be able to stay on the course established by this SWMP for the next twenty years. The waste stream for the County is not expected to increase so much (see Table 2-9) as to create capacity issues for the collection and disposal system. Hence, the twenty-year implementation strategy is much the same as the implementation details shown in this chapter. Changes will likely continue to occur, however, in the local, statewide and national solid waste arena, and should any of these changes require an amendment or revision to this SWMP, then the steps described in the next section can be taken to address those.

10.13. PROCEDURES FOR AMENDING THE SWMP

Ecology's Planning Guidelines require that solid waste management plans be reviewed at least every five years. At any point in time, however, it may be necessary to update this SWMP due to one or more specific changes, and if this should occur then the changes could be either addressed through an amendment or through a revision to the plan, depending on the magnitude of the change(s).

An amendment is a simpler process that can be used to keep the SWMP current for minor changes. Amendments can be used when there are minor changes in programs, financing or operations, and these changes are still within the original scope and goals of the SWMP. For more significant changes, such as a change in the underlying vision of the plan or other changes that impact all or most of the elements

of the solid waste system, a plan revision would be needed. Other examples of changes that would require a plan revision include unanticipated changes (changes not addressed in this SWMP) such as a change in the disposal method, the development of a new transfer station or disposal facility, and other significant changes in service levels. The process for adopting a revision to the SWMP would be similar to the process for creating the SWMP in the first place, but amendments can be adopted through a simpler process.

The following steps should be undertaken if the SWMP needs to be amended:

1. a proposed amendment to the SWMP should be prepared by the local government agency (or other party in special cases) initiating the change. This should generally be preceded by discussions at the SWAC. The proposed amendment must be presented to the SWAC for review and comment, and submittal to the SWAC should be accompanied by a report providing an analysis of the impacts of the proposed change.
2. the SWAC should provide a recommendation for the proposed amendment in a timely manner. If the SWAC's recommendation is to proceed with the proposal, it should be submitted to Ecology staff for review and comment. If the SWAC recommends against moving forward, Skagit County staff can consider whether the proposal should be modified or to proceed with it as stated.
3. the Solid Waste System Governance Board should be briefed on the proposed amendment. Depending on the timing and the nature of the proposal, this briefing could occur before or after the SWAC's review of it. The Governance Board should be allowed to comment on the proposed amendment and concur with it or suggest modifications prior to submitting it to Ecology for review.
4. after local review, the proposed amendment should be submitted to Ecology for review and comment. It should be noted that Ecology's solid waste planning guidelines do not require this step, and so at their option Ecology could decline to comment on the amendment. As a shorter and simpler document, it is anticipated that Ecology review of the proposed amendment can be conducted within 45 days to 60 days. It is also anticipated that UTC review of the amendment will not be necessary, since by definition an amendment is a relatively simple change without a substantial impact on the costs of the solid waste system.
5. the proposed amendment can then be revised as necessary and presented for adoption by the elected officials of the municipalities and Skagit County. This part of the process will require a meeting of the Solid Waste System Governance Board (as described in the interlocal agreement) or similar activities consistent with agreements and procedures in effect at that time.

6. once the amendment has been adopted, Ecology should be notified and the amendment should be included with any future copies of the SWMP.

GLOSSARY

The following definitions are provided for terms used in this SWMP:

AHERA: Asbestos Hazard Emergency Response Act.

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

Biosolids: includes sludge from the treatment of sewage at a wastewater treatment plant and semisolid waste pumped from a septic system that have been treated to meet standards for beneficial use (see Chapter 173-308 WAC).

Buy-back recycling center: a facility that pays people for recyclable materials.

Commercial solid waste: solid waste generated by non-industrial businesses. This includes waste from business activities such as construction; transportation, communications and utilities; wholesale trades; retail trades; finance, insurance and real estate; other services; and government.

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

Composting: the controlled biological decomposition of organic wastes to produce a humus-like final product that can be used as a soil amendment. In this plan, backyard composting means a small-scale activity performed by homeowners on their own property, using yard debris that they generate.

Conditionally-exempt small-quantity generator (CESQG): a non-residential generator of small quantities of hazardous wastes that is exempt from the full regulations for hazardous wastes as long as the wastes are handled properly.

Consistency with planning goals: one of the criteria used to evaluate alternatives discussed in this SWMP, “consistency with planning goals” is a relative measure as to how well an alternative agrees with the goals that are relevant to that aspect of the solid waste system and with the general goal of diverting more materials from the waste stream (if applicable).

Cost-effectiveness: one of the criteria used to evaluate the alternatives discussed in this SWMP, cost-effectiveness is a relative measure as to how costly an alternative is in handling the materials or waste that it is designed to address, generally on a per-ton basis and compared to other potential alternatives and/or to existing practices.

CPG: Coordinated Prevention Grants, a grant program administered by the Washington State Department of Ecology.

Curbside recycling: the act of collecting recyclable materials from residential generators, usually after the materials have been placed in a cart at the curb.

Diversion potential: one of the criteria used to evaluate the alternatives discussed in this SWMP, diversion potential is a relative measure as to how much material an alternative can divert from the waste stream.

E-waste: electronic waste. As defined under Chapter 173-900 WAC, e-waste includes computers, monitors, laptops, tablet computers, televisions, portable DVD players and e-readers (these are sometimes collectively referred to as “covered units”).

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

Feasibility: one of the criteria used to evaluate the alternatives discussed in this SWMP, feasibility is a relative measure intended to address the political and/or technical feasibility of an alternative.

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

Flow control: a term that refers to the authority to direct solid wastes to specific facilities.

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

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

Household hazardous waste: wastes that would be classified as hazardous due to their nature or characteristics, except that the amount is generated by households and so is exempt. Includes aerosol cans, solvents, some paints, cleaners, pesticides, herbicides, compressed gases, oil, other petroleum products, car batteries and other materials.

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

Industrial waste: solid waste generated by manufacturing companies. Does not include hazardous wastes generated by these industries.

Inert wastes: includes wastes that are inert in nature, such as glass, concrete, and bricks (see WAC 173-350-990).

Interlocal agreement: a formal agreement between two or more public agencies to work cooperatively (see also RCW 70.95.080 and RCW 39.34.030).

Mixed paper: other types of recyclable paper not including newspaper and cardboard. Includes materials such as “junk mail,” magazines, books, paperboard (non-corrugated cardboard), and colored printing and writing papers.

Moderate risk wastes (MRW): household hazardous waste (see definition, above) and wastes produced by businesses that potentially meet the definition of a hazardous wastes except the amount of waste produced falls below regulatory limits (see CESQG).

MSW: municipal solid waste (see also “solid waste”).

Mulching: 1) leaving grass clippings on the lawn when mowing; 2) placing yard debris, compost, wood chips or other materials on the ground in gardens or around trees and shrubs to discourage weeds and retain moisture.

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

NWCAA: the Northwest Clean Air Agency; an agency with regulatory and enforcement authority for air pollution issues in Skagit, Island, San Juan and Whatcom Counties.

Overall rating: for evaluating the alternatives discussed in this SWMP, “overall rating” is the average of the other criteria used for evaluating the alternatives.

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

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

Public information: the development of educational materials for the public, including brochures, videos, and public service announcements.

RCW: Revised Code of Washington.

Recycling: the act of transforming or remanufacturing wastes into usable or marketable materials for use other than landfilling or incineration.

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

SEPA: State Environmental Policy Act.

Septage: a semi-liquid waste consisting of settled sewage solids combined with varying amounts of water and dissolved materials.

Sewage sludge: the concentrated solids derived from the treatment of sewage at a municipal wastewater treatment plant (see also “biosolids”).

Sharps: in this SWMP, refers to used syringes and similar items.

Single stream: refers to the practice of placing all recyclable materials together in one container for curbside collection. This is similar to “commingled” except that glass

bottles may or may not be included in a commingled mixture whereas glass bottles are definitely mixed with the other materials in single stream collection programs.

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

Solid Waste Advisory Committee (SWAC): a group assisting Skagit County with the development of this solid waste management plan, composed of representatives from the general public, private industry, and the cities.

Source-separated: recyclable materials that have been kept separate from garbage or other forms of solid waste by the waste generator. This may or may not include keeping different types of recyclable materials separate from each other (see also “commingled” and “single stream”).

Special wastes: wastes that have particular characteristics such that they present special handling and/or disposal problems.

Sustainable: meeting the needs of the present without compromising the ability of future generations to meet their needs.

SWAC: see Solid Waste Advisory Committee.

SWMP: Solid Waste Management Plan.

Tipping fee: The rate charged by transfer and disposal facilities, generally on a per-ton basis.

Transfer station: an intermediate solid waste disposal facility at which solid waste is temporarily deposited to await transportation to a final disposal site. Note that the State’s definition for a transfer station requires acceptance of waste from garbage collection trucks, which the Sauk and Clear Lake sites do not.

UGA: Urban Growth Area, see Skagit County Comprehensive Plan for more details.

UTC: Washington Utilities and Transportation Commission.

WAC: Washington Administrative Code.

Waste reduction or waste prevention: reducing the amount or type of solid waste that is generated. Also defined by state rules to include reducing the toxicity of wastes.

Yard debris: includes leaves, grass clippings, brush and branches.

See also Skagit County Code 12.16.060 and WAC 173-350-100 for additional definitions related to solid waste management. In the case of any inconsistencies, Skagit County Code and State law will take precedence over the above definitions.

APPENDIX A

INTERLOCAL AGREEMENTS

INTRODUCTION

The current interlocal agreement between Skagit County and the eight cities and towns is shown in the following pages.

DISCUSSION

This interlocal agreement (the “Agreement”, dated April 30, 2008 [Skagit County Contract #C20080306], as amended in 2010 by A20100124) provides for a number of changes from the previous agreement, including, but not limited to:

- extends the effective date until December 31, 2030,
- replaces the Municipalities Committee with a Solid Waste System Governance Board (SWSGB). The SWSGB has decision-making authority regarding significant Solid Waste System Decisions (as defined in the Agreement), subject to and pursuant to the terms of the Agreement.

These changes are intended to support the existing solid waste system and to provide a timely opportunity in the future for consideration of changes to the system.

AFTER RECORDING RETURN TO:
SKAGIT COUNTY BOARD OF COMMISSIONERS
1800 CONTINENTAL PLACE, STE. 100
MOUNT VERNON, WA 98273

DOCUMENT TITLE: INTERLOCAL COOPERATIVE AGREEMENT BETWEEN
SKAGIT COUNTY AND CITIES AND TOWNS IN SKAGIT
COUNTY FOR SOLID WASTE MANAGEMENT

DATE SIGNED: April 30, 2008

GRANTOR: SKAGIT COUNTY, a Political Subdivision of the State of
Washington,

GRANTEE: CITY OF MOUNT VERNON, a Washington Municipal Corporation;
CITY OF ANACORTES, a Washington Municipal Corporation;
CITY BURLINGTON, a Washington Municipal Corporation;
CITY OF SEDRO-WOOLLEY, a Washington Municipal Corporation;
TOWN OF LA CONNER, a Washington Municipal Corporation;
TOWN OF CONCRETE, a Washington Municipal Corporation;
TOWN OF LYMAN, a Washington Municipal Corporation;
TOWN OF HAMILTON, a Washington Municipal Corporation

COUNTY CONTRACT NO.: SKAGIT COUNTY
Contract # C20080306

Page 1 of 21

DOCUMENT TITLE: INTERLOCAL COOPERATIVE AGREEMENT BETWEEN SKAGIT COUNTY AND CITIES AND TOWNS IN SKAGIT COUNTY FOR SOLID WASTE MANAGEMENT.

DATE SIGNED: April 30th, 2008

GRANTOR: SKAGIT COUNTY, a Political Subdivision of the State of Washington,

GRANTEES: CITY OF MOUNT VERNON, a Washington Municipal Corporation;
CITY OF ANACORTES, a Washington Municipal Corporation;
CITY OF BURLINGTON, a Washington Municipal Corporation;
CITY OF SEDRO-WOOLLEY, a Washington Municipal Corporation;
TOWN OF LA CONNER, a Washington Municipal Corporation;
TOWN OF CONCRETE, a Washington Municipal Corporation;
TOWN OF LYMAN, a Washington Municipal Corporation; and
TOWN OF HAMILTON, a Washington Municipal Corporation

INTERLOCAL COOPERATIVE AGREEMENT
BETWEEN
SKAGIT COUNTY
AND CITIES AND TOWNS IN SKAGIT COUNTY
FOR
SOLID WASTE MANAGEMENT

THIS INTERLOCAL COOPERATIVE AGREEMENT ("Agreement"), made and entered into on this 30th day of April, 2008, by and between the CITY OF MOUNT VERNON, a Washington Municipal Corporation; the CITY OF ANACORTES, a Washington Municipal Corporation; the CITY OF BURLINGTON, a Washington Municipal Corporation; the CITY OF SEDRO-WOOLLEY, a Washington Municipal Corporation; the TOWN OF LA CONNER, a Washington Municipal Corporation; the TOWN OF CONCRETE, a Washington Municipal Corporation; the TOWN OF LYMAN, a Washington Municipal Corporation; and the TOWN OF HAMILTON, a Washington Municipal Corporation hereinafter collectively referred to as the "Municipalities", and SKAGIT COUNTY, a political subdivision of the State of Washington, hereinafter referred to as the "County", pursuant to the authority granted by Chapter 39.34 RCW, INTERLOCAL COOPERATION ACT. The Municipalities and the County may be individually referred to herein as a "Party", and may be collectively referred to herein as the "Parties."

WHEREAS, the County and each of the Municipalities executing this Agreement are authorized and directed by Chapter 70.95 RCW to prepare a Comprehensive Solid Waste Management Plan ("CSWMP") and are further authorized by Chapter 39.34 RCW to enter into an agreement for the administration and implementation of said CSWMP; and

WHEREAS, the County prepared a Comprehensive Solid Waste Management Plan for the County and Municipalities of the County in 1994, and updated the CSWMP with the active involvement of the Municipalities in 2004; and

WHEREAS, the 2004 Comprehensive Solid Waste Management Plan update calls for significant improvements to and replacements for existing waste facilities, and the County has entered into a waste export contract that expires in 2013, and in light of these factors long term financial planning is desirable; and

WHEREAS, providing the most effective and efficient system for managing solid waste generated in Skagit County, including its Municipalities, requires use of the solid waste disposal system established by the County and the Comprehensive Solid Waste Management Plan of the County to the fullest extent possible;

WHEREAS, in or about May of 2004, the County and the Municipalities entered into a previous interlocal agreement (Skagit County Contract # C20040228) regarding the administration and implementation of the CSWMP; and

WHEREAS, the County, in response to recent policy guidance provided by the Skagit County Board of County Commissioners (including, but not limited to, Skagit County Resolution # R20070141) is in the process of amending the CSWMP, and pursuant to these amendments, the Parties desire to mutually effectuate changes between the relationship of the Parties to provide for enhanced cooperation by and between the County and the Municipalities, and also to make additional changes to the terms of the previous interlocal agreement by and between the Parties (Skagit County Contract # C20040228); and

WHEREAS, the terms of this Agreement are intended to wholly replace and supersede the terms of the previous interlocal agreement by and between the Parties (Skagit County Contract # C20040228);

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

1. **NEW AGREEMENT; EFFECTIVENESS.** This Agreement entirely replaces and supersedes the previous interlocal agreement (herein the "previous interlocal agreement") for a Comprehensive Solid Waste Disposal System that the Parties entered into in 2004 (Skagit County Contract # C20040228). This Agreement shall not become effective until all Parties to the previous interlocal agreement have duly executed this Agreement. Unless and until all Parties to the previous interlocal agreement have duly executed this agreement, the previous interlocal agreement shall remain in full force and effect pursuant to the terms therein.

2. **DEFINITIONS.** For the purposes of this Agreement, the following definitions apply:

2.1 "Comprehensive Solid Waste Management Plan," or "CSWMP" means the comprehensive plan for solid waste management as required by Ch. 70.95 RCW.

2.2 "Party" or "Parties" shall mean any signatory or signatories to this Agreement.

2.3 "Solid Waste" means all putrescible and nonputrescible solid and semi-solid wastes including, but limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials, with the exception of wastes excluded by WAC 173-304-015.

2.4 "Solid waste handling" means the management, storage, collection, transportation, utilization, processing, and final disposal of Solid Waste, including the recovery and recycling of materials from Solid Waste, the recovery of energy resources from such wastes or the conversion of energy in such wastes to more useful forms or combinations thereof, and as such term may be modified by amendments to Chapter 70.95.030(23) RCW.

2.5 "System" means all facilities for Solid Waste handling owned or operated, or contracted for, by the County, and all administrative activities related thereto, and as further defined and provided within the County's Comprehensive Solid Waste Management Plan, as may be amended and/or updated.

2.6 "System Costs" means all costs arising from System operation, and maintenance, capital costs for new System facilities and equipment, past and future System liabilities, known or unknown, and shall include any municipal liability for disposal clean-up costs anywhere within the jurisdiction of Skagit County or the municipal Parties to this Agreement, provided, however, the System shall have no liability for the clean-up costs or other liabilities of any Party that terminates their participation in the System.

3. RESPONSIBILITIES FOR WASTE DISPOSAL SYSTEM. For the duration of this Agreement, the Parties shall have the following responsibilities:

3.1 The County shall continue to provide for the efficient disposal of all Solid Waste generated within the jurisdictions of each Party to this Agreement to the extent, in the manner, and by facilities as described in the Comprehensive Solid Waste Management Plan. The County shall not be responsible for disposal of nor claim that this Agreement extends to Solid Waste that has been eliminated through waste recycling activities in conformity with the Comprehensive Solid Waste Management Plan.

3.2 Subject to the governance structure established by other provisions of this Agreement, the County shall continue to provide a comprehensive Solid Waste management system, including educational programs, as defined by the Comprehensive Solid Waste Management Plan.

3.3 The County shall continue to operate the System in a financially prudent manner, minimize fee increases, and use System revenues only for System purposes. The County's operation of the System is subject to governance by the SWSGB, as further set forth in elsewhere in this Agreement.

4. COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN. For the duration of their participation in this Agreement, each Party shall participate in the Comprehensive Solid Waste Management Plan prepared and periodically reviewed and revised pursuant to Chapter 70.95 RCW. For the duration of their participation in this Agreement, each Party authorizes the County to include in the Comprehensive Solid Waste Management Plan (CSWMP) provisions

for the management of solid waste generated in each Party's jurisdiction. Parties executing this Agreement hereby agree to respectively adopt any CSWMP updates properly adopted by the SWSGB within 30 days of approval by the Department of Ecology.. No Party may veto, reject, or fail to adopt any CSWMP Amendments or Revisions as recommended by the SWSGB pursuant to this agreement. Until such time as the CSWMP is updated by the SWSGB consistent with this Agreement, the Parties understand and agree that this Agreement shall control with respect to any inconsistency between the CSWMP and this Agreement. The Parties to this Agreement further understand and agree that the County shall promptly amend the CSWMP after execution of this Agreement solely as necessary to incorporate and reflect the terms of this Agreement in the CSWMP, which amendment shall be applicable to and deemed adopted by all Parties to this Agreement by virtue of their execution of this Agreement.

5. DESIGNATION OF COUNTY SYSTEM FOR SOLID WASTE DISPOSAL. Each Party shall designate the County System for disposal of all Solid Waste generated within the Party's jurisdictional limits, and within the scope of the Comprehensive Solid Waste Management Plan.

6. DESIGNATION OF DISPOSAL SITES. The SWSGB shall designate County System disposal site or sites for the disposal of such solid waste except for recyclable and other materials removed from solid waste by waste recycling activities in conformity with the Comprehensive Solid Waste Management Plan. Designation by the SWSGB of disposal site(s) pursuant to this Agreement shall not diminish any Party's power to regulate land use and establish land use criteria within the Party's jurisdiction. Furthermore, designation by the SWSGB of disposal site(s) pursuant to this Agreement shall not diminish the County's authority to regulate public health pursuant to Title 70 RCW and other applicable laws and regulations.

7. ENFORCEMENT. The County shall be primarily responsible for enforcement of laws and regulations requiring persons to dispose of solid waste at sites designated by the County. Each Party shall cooperate with the County in its enforcement efforts, and shall provide by ordinance that any person that disposes of Solid Waste generated within its boundaries at a site other than a site designated by the County will be guilty of a misdemeanor, except where such disposal may be otherwise permitted by state law. To the extent legally possible, the County shall be responsible for bringing enforcement actions against persons violating state statutes, or County ordinances relating to the disposal of Solid Waste at sites designated by the County. However, in instances in which the County lacks legal authority to bring an enforcement action and another Party possesses that authority, the County may request that the Party bring such enforcement action. The Party shall comply with this request, or in some other way ensure that Solid Waste generated with the Party is disposed of at those sites designated by the County. All reasonable costs incurred by the Party in taking such enforcement or other actions that are requested in writing by the County shall be paid as System costs.

8. LIABILITY AND INDEMNIFICATION. Each Party agrees to be responsible and assume liability for its own wrongful and/or negligent acts or omissions or those of their elected officials, officers, agents, or employees to the fullest extent required by law, and further agrees to save, indemnify, defend, and hold the other Party harmless from any such liability. It is further provided that no liability shall attach to any other Parties by reason of entering into this Agreement except as may be expressly provided herein.

9. SYSTEM COSTS AND RATES. The Parties agree that all System Costs shall be paid by the System through tipping fee rates and rate adjustments established in conformance with the Level of Service ("LOS") envisioned in paragraph 13.1.6 below. Rates set

by the SWSGB shall accommodate long-term System viability and a financially reasonable level of cash reserves.

10. DURATION; TERM OF AGREEMENT. The Parties agree to be bound by this Agreement until September 15, 2013, unless prior modified in accordance with paragraph 9. This Agreement shall not sunset or expire, but shall continue in full force and effect. Individual Parties to this Agreement may, after September 15, 2013, withdraw from this Agreement by giving sixty (60) days' notice to all other Parties to this Agreement.

11. REVISION, AMENDMENT, SUPPLEMENTATION, OR TERMINATION. This Agreement shall be reviewed by the Parties in conjunction with any review of the Comprehensive Solid Waste Management Plan. The terms of the Agreement may be revised, amended, or supplemented, or the Agreement as a whole may be terminated only upon the written agreement of all Parties executed with the same formalities as the original. No revision, amendment, supplementation or termination shall be adopted or put into effect if it impairs any other contractual obligation of the County. Waiver or breach of any term or condition of this Agreement shall not be considered a waiver of any prior or subsequent breach.

12. SOLID WASTE ADVISORY COMMITTEE.

12.1 Pursuant to Chapter 70.95.165(3) RCW and Chapter 39.34.030(4) RCW and Skagit County Code 12.18, a Solid Waste Advisory Committee shall continue operating for the purpose of rendering advice to Skagit County and the SWSGB regarding solid and moderate risk waste related issues generally, service levels, disposal rates, and short and long term planning, and especially the administration and implementation of the Comprehensive Solid Waste Management Plan.

12.2 Membership of the Solid Waste Advisory Committee shall be as follows:

(1) Regular members. The Solid Waste Advisory Committee shall consist of:

(a) One member from each Party to this Agreement, to be nominated by the legislative authority for that Municipality and appointed by the County Commissioners.

(b) One member from each Municipality in Skagit County which has its own Comprehensive Solid Waste Management Plan, to be nominated by the legislative authority for that Municipality and appointed by the County Commissioners.

(c) Three members, each representing the unincorporated area of one of the three County Commissioner districts. The three members shall be recommended by the County Commissioners. The County Commissioners shall recommend candidates representing a spectrum of citizens, public interest groups, and businesses. Candidates shall be residents of Skagit County or firms licensed to do business in Skagit County.

(d) Two members shall be selected, one to represent commercial solid waste collection firms; and one to represent commercial recycling firms. These members shall be recommended by the County Commissioners.

(e) One ex officio, non-voting representative from the Skagit County Public Works Solid Waste Section.

(f) One ex officio, non-voting representative from the State of Washington Department of Ecology.

(g) One ex officio, non-voting representative from the Skagit County Health Department.

(2) Auxiliary Members. The regular membership of the Solid Waste Advisory Committee may appoint auxiliary members for a specific time period to serve on the committee in a non-voting capacity, for the purpose of providing specific information, technical advice, and information of a general nature which is pertinent to the committee's activities or any other form of assistance which will aid the committee in carrying out its purposes.

12.3 Meetings. The Solid Waste Advisory Committee shall meet as required to carry out the purposes of the Committee. Meetings may be held at various locations within the County with written notification to the membership and chairman designating the time and place of such meetings. Meetings shall be held not less than quarterly. A quorum shall consist of a simple majority of the members on the Committee. A majority of the total voting membership of the Committee is required to pass a motion.

12.4 Transfer Station Oversight Sub-Committee. Provides operational and customer-based input on Skagit County Transfer Station operations and serves as an advisory resource to the Solid Waste Advisory Committee.

(1) Regular Members. The Transfer Station Oversight Sub-Committee shall consist of one staff member each from Mount Vernon, Sedro-Woolley, Burlington, Anacortes, Regional Disposal Company, Waste Management, Inc., Skagit River Steel and Recycling, and Skagit County Public Works.

(2) Meetings. The Transfer Station Oversight Sub-Committee shall meet every year, or as needed, to carry out the purposes of the Committee including making recommendations to the Solid Waste Advisory Committee.

13. SOLID WASTE SYSTEM GOVERNANCE BOARD.

13.1 Purpose. Any proposed changes or improvements significantly affecting the operation of the System or which may directly or indirectly impact tipping fees (including, but not limited to, tipping fee adjustments) or the siting of disposal facilities (herein collectively referred to as "Significant Solid Waste Decisions") shall be submitted to the Solid Waste System Governance Board (SWSGB) for final decision. Significant Solid Waste Decisions within the scope of the SWSGB's purview shall include timely review and approval by a 60% supermajority vote of the following matters, as recommended by the SWAC and/or the County in a manner consistent with this Agreement:

13.1.1 Major capital improvements to the System. "Major capital improvements" shall be defined as any capital expenditures in excess of Fifty Thousand Dollars (\$50,000) which modify the method or model of operation of the System.

13.1.2 Designation of site(s) for inclusion within the System, provided that such designation shall be consistent with the other provisions of this Agreement and the Comprehensive Solid Waste Management Plan as approved by the Parties and adopted as set forth in this Agreement;

13.1.3 Long-range plans for System expansion and construction. By December 31, 2011 the SWSGB shall produce a long-range plan for the System that encompasses the ensuing twenty (20) year period (the "Long Range Plan"), in accordance with RCW 70.95.090(2). If the SWSGB fails to produce a Long Range Plan by December 31, 2011, the Skagit County Board of Commissioners may adopt a Long Range Plan.

13.1.4 Requests for Proposals for privatization of all or any part of the System, including approval of any System/Operator Agreement (or similar agreement) for private parties (and/or third parties who are not signatories to this Agreement) seeking to become a part of the System;

13.1.5 Changes to tipping rates, which shall be done in a manner consistent with the other terms and conditions of this Agreement;

13.1.6 The annual operating and capital budget (Annual Budget) for the following year. Provided, however, the SWSGB's approval shall be limited to approval of the overall budget based on the adopted level of service ("LOS"), and shall not include the right to disapprove individual line-item budget expenditures. The LOS shall be initially established as the current LOS and may be amended from time to time by the SWSGB. Changes to the LOS shall be made at least 180 days prior to the scheduled adoption of the Annual Budget. The Annual Budget shall be prepared in conformance with the rate structure and LOS established by the SWSBG.

The SWSGB may direct the County to perform and/or commission studies including, but not limited to, rate studies, capital improvement studies, and comprehensive plan update studies as are necessary toward making reasoned and informed Significant Solid Waste Decisions, all costs of which shall be paid as System costs.

13.2 Powers Not Enumerated. Any powers not enumerated herein and assigned to the SWSGB shall be retained by the Skagit County Department of Public Works.

13.3 Regular Members. The SWSGB shall consist of at least one representative of each Party executing this Agreement.

13.4 Meetings. The SWSGB shall meet a minimum of at twice each calendar year, or as often as otherwise needed to adequately deliberate upon and decide Significant Solid Waste Decisions (as defined in Section 13.1, above), or for other purposes (such other purposes including, but not limited to, review of the status of the solid waste disposal system, and review of any recommendations from the Solid Waste Advisory Committee).

13.5 Decisions of SWSGB Initiated by County. The County shall retain responsibility for day-to-day operations of the System. Without diminishing the power afforded the SWSGB pursuant to ¶13.1, supra, the County may request a decision as to a Significant Solid Waste Decision from the SWSGB. After submitting any Significant Solid Waste Decision to the SWSGB that is within the scope set forth in Section 13.1 (above), the SWSGB shall render a

decision within sixty (60) days. Upon a finding by the SWSGB that additional time is needed in which to render a decision, the SWSGB may extend the decision timeline for an additional 60 days. In addition to the foregoing, upon a finding by the County Public Works Director that any Significant Solid Waste Decision constitutes an emergency that threatens the operation of the System, the SWSGB may be convened on an emergency basis three (3) days after notice to each Party to this Agreement. The County shall submit requests for decisions from the SWSGB regarding Significant Solid Waste Decisions in writing. In the event that the County does not receive a final written decision from the SWSGB within sixty (60) days (or 120 days if properly extended as set forth above), the County may take action consistent with the best interests of the System within the scope of the Significant Solid Waste Decision initially sought.

13.6 SWSGB Voting. All decisions of the SWSGB envisioned herein shall be done by majority vote, and immediately reduced to writing and provided to the County. A quorum shall consist of a simple majority of the Municipal members of the SWSGB. Counting of Municipal members present for the purposes of a quorum shall be based on the presence of one Municipal representative. A transcript shall be made of each SWSGB meeting. Each Party shall have one vote weighted as outlined in Section 13.6.1 below.

13.6.1 Based on the 2000 U.S. Census establishing a total County population of 102,979 (and subject to modification after each new census), each Party's vote shall be determined as follows:

The voting structure shall be based two-thirds on the population of each participating municipality with the County's portion equal to the unincorporated population, and one-third equally distributed to each entity. The following table summarizes the overall allocation of votes expressed as percentages.

Anacortes	14,557	13.1	
Burlington	6,757	8.1	
Sedro-Woolley	8,658	9.3	
Mount Vernon	26,232	20.7	
La Conner	761	4.2	
Hamilton	309	3.9	
Lyman	409	4.0	
Concrete	790	4.2	
County	44506	32.5	

Any decision of the SWSGB under this Agreement must obtain a 60% majority.

13.7 Extraordinary Veto by Board of Commissioners. The Skagit County Board of Commissioners (by action of the Skagit County Board of Commissioners) may veto any final decision of the SWSGB within thirty (30) days of any final decision by the SWSGB on the sole grounds that a final decision of the SWSGB will: (a) jeopardize the long-term viability of the System; (b) impair the ability of the county to meet current solid waste contractual obligations (c) be out of compliance with the adopted CSWMP, and adopted LOS, and/or (d) be contrary to State law governing operation of the System. Any final decision of the SWSGB vetoed by the Skagit County Board of Commissioners pursuant to this paragraph shall be returned to the SWSGB for further deliberation. In the event the SWSGB and the Skagit County Board of County Commissioners cannot agree after veto and remand of any final decision within twenty

(20) days, the matter shall be submitted to final, binding arbitration before a single arbitrator to be selected within thirty (30) days by the Presiding Judge, Skagit County Superior Court. The arbitration shall be held at a mutually convenient time and location with Skagit County, not less than forty-five (45) days after the selection of the arbitrator. Any arbitration shall apply the laws of the State of Washington. Each Party shall bear its own costs and fees in the event of any such arbitration. The Parties must each submit a concise statement setting forth a proposed resolution to the dispute, from which the arbitrator shall choose on the basis of its consistency with this Agreement. The arbitrator's decision shall be final and binding on the Parties. All matters arising under this agreement shall be deemed arbitrable including questions of procedural arbitrability. The arbitrator may award the prevailing Party their reasonable attorney fees and costs, including expert and consultant fees. Any arbitrated dispute shall be maintained by individual Parties to this Agreement and not the System, and attorney fees and costs fixed by the arbitrator shall not be assessed as System costs. The arbitrator's decision may be entered by any Party in Skagit County Superior Court.

14. **NO THIRD PARTY BENEFICIARIES:** This Agreement is not entered into with the intent that it shall benefit any Municipality not signing this Agreement and no other person or entity shall be entitled to be treated as a third party beneficiary of this Agreement. This Agreement is not intended to nor does it create any third party beneficiary or other rights in any third person or party, including, but not limited to, any agent, contractor, subcontractor, consultant, volunteer, or other representative of either party. No agent, employee, contractor, subcontractor, consultant, volunteer, or other representative of the Parties shall be deemed an agent, employee, contractor, subcontractor, consultant, volunteer, or other representative of any other party.

15. **SEVERABILITY:** In the event any term or condition of this Agreement or application thereof to any person or circumstances is held invalid, such invalidity shall not affect other terms, conditions or applications of this Agreement which can be given effect without the invalid term, condition, or application. To this extent and end the terms and conditions of this Agreement are declared severable.

16. **ENTIRE AGREEMENT:** This Agreement contains all the terms and conditions agreed upon by the Parties. All items incorporated herein by reference are attached. No other understandings, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or to bind any of the Parties hereto.

17. **COMPLIANCE WITH LAWS:** The Parties to this Agreement shall comply with all applicable federal, state, and local laws, rules, and regulations in carrying out the terms and conditions of this Agreement. The Parties shall obtain and comply with any and all necessary permits and approvals from all applicable jurisdictions prior to commencing any work related to this Agreement.

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

19. **CAPTIONS & COUNTERPARTS:** The captions in this Agreement are for convenience and reference only and do not define, limit, or describe the scope or intent of this Agreement. This Agreement may be executed in any number of counterparts, and each such

counterpart hereof shall be deemed to be an original instrument, but all such counterparts together shall constitute but one agreement.

20. **TIME OF PERFORMANCE:** Time is specifically declared to be of the essence of this Agreement and of all acts required to be done and performed by the Parties hereto.

21. **NO SEPARATE ENTITY:** It is not the intention that a separate legal entity be established to conduct this cooperative undertaking, and no separate legal entity is established by this Agreement.

22. **NEUTRAL AUTHORSHIP:** Each of the terms and provisions of this Agreement have been reviewed and negotiated, and represents the combined work product of the Parties hereto. No presumption or other rules of construction which would interpret the provisions of this Agreement in favor of or against the Party preparing the same shall be applicable in connection with the construction or interpretation of any of the provisions of this Agreement. The Parties represent that they have had a full and fair opportunity to seek legal advice with respect to the terms of this Agreement and have either done so, or have voluntarily chosen not to do so. The Parties represent and warrant that they have fully read this Agreement, that they understand its meaning and effect, and that they enter into this Agreement with full knowledge of its terms. The Parties have entered into this Agreement without duress or undue influence.

IN WITNESS WHEREOF, the Parties have executed this Agreement this 30th day of April, 2008.

APPROVED:

**BOARD OF COUNTY COMMISSIONERS
SKAGIT COUNTY, WASHINGTON**



Don Munks
DON MUNKS, Chairman

Kenneth A. Dahlstedt
KENNETH A. DAHLSTEDT, Commissioner

Sharon D. Dillon
SHARON D. DILLON, Commissioner

Recommended:

By: [Signature]
Department Head

By: [Signature]
Budget & Finance Administrator

Approved as to Indemnification:

By: [Signature]
Risk Manager

Approved as to Form:

By: [Signature]
Deputy Prosecuting Attorney

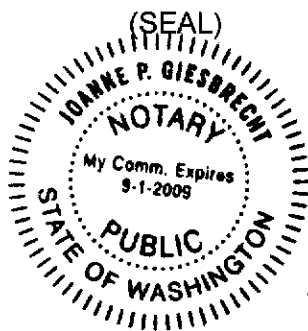
Attest:

[Signature]
Clerk of the Board

STATE OF WASHINGTON }
COUNTY OF SKAGIT } ss.

I certify that I know or have satisfactory evidence that Sharon Dillon, Don Munks, and ~~or~~ Kenneth A. Dahlstedt is/are the person(s) who appeared before me, and said person(s) acknowledged that she/he/they signed this instrument, on oath stated that she/he/they was/were authorized execute the instrument and acknowledged it as Commissioner(s) of Skagit County, to be the free and voluntary act of such Party for the uses and purposes herein mentioned.

DATED this 30th day of April, 2008.



Joanne P. Giesbrecht
Notary Public
print name JOANNE P. GIESBRECHT
Residing at MOUNT VERNON
My commission expires 09-01-09

[Signature]

Mailing Address:

STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

DATED this 22nd day of April, 2008.



APPROVED AS TO FORM

MOUNT VERNON CITY ATTORNEY

Attest

Albert L. Grosse

Contract # C20080306

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CITY OF ANACORTES:

H. Dean Maxwell

DEAN MAXWELL, Mayor

(Date 4/16/08)

Mailing Address:

City of Anacortes

City Hall

P.O. Box 547

Anacortes, WA 98221

STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

I certify that I know or have satisfactory evidence that Dean Maxwell is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was duly authorized execute the instrument and acknowledged it as Mayor of the City of Anacortes, to be the free and voluntary act of such party for the uses and purposes herein mentioned.

DATED this 16 day of April, 2008.

(SEAL)

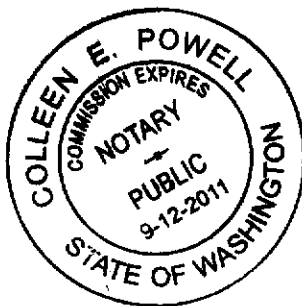
Colleen E. Powell

Notary Public

print name: Colleen E. Powell

Residing at Burlington, WA

My commission expires 9/22/11



SKAGIT COUNTY

Contract # C20080306

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CITY OF BURLINGTON:

Edward J. Brunz
ED BRUNZ, Mayor

(Date 4/14/08)

Attest:

GREG THRAMER
GREG THRAMER, Finance Director

Approved as to form:

SCOTT G. THOMAS
SCOTT G. THOMAS, City Attorney

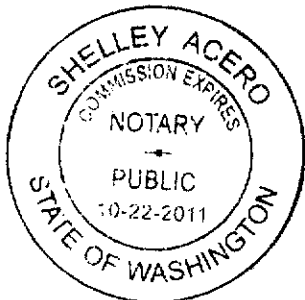
Mailing Address:

City of Burlington
833 South Spruce Street
Burlington, WA 98233

STATE OF WASHINGTON)
COUNTY OF SKAGIT) SS
)

I certify that I know or have satisfactory evidence that Ed Brunz is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was duly authorized to execute the instrument on behalf of the City of Burlington and acknowledged it as Mayor of the City of Burlington, to be the free and voluntary act of such party for the uses and purposes herein mentioned.

DATED this 14th day of April, 2008.



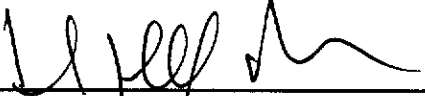
Shelley Acero
Notary Public
print name: Shelley Acero
Residing at mt. Vernon
My commission expires 10-22-2011

SKAGIT COUNTY
Contract # C20080306

Page 16 of 21

Page 16 of 21

CITY OF SEDRO-WOOLLEY:


MIKE ANDERSON, Mayor
(Date _____)

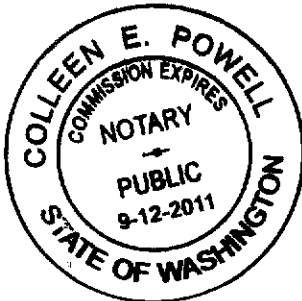
Mailing Address:

Sedro-Woolley City Hall
720 Murdock Street
Sedro-Woolley, WA 98284

STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

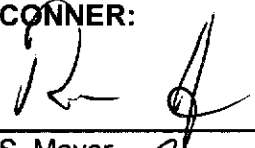
I certify that I know or have satisfactory evidence that Mike Anderson is the person who appeared before me, and said person acknowledged that she/he signed this instrument, on oath stated that she/he was duly authorized execute the instrument and acknowledged it as Mayor of the City of Sedro-Woolley, to be the free and voluntary act of such party for the uses and purposes herein mentioned.

DATED this 16 day of April, 2008.
(SEAL)




Notary Public
print name: Colleen E Powell
Residing at Burlington, WA
My commission expires 9/12/2011

TOWN OF LA CONNER:



RAMON HAYES, Mayor

(Date 4.16.08)

Mailing Address:

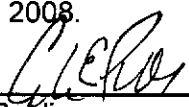
Town of La Conner
P.O. Box 400
La Conner, WA 98257

STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

I certify that I know or have satisfactory evidence that Ramon Hayes is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was duly authorized execute the instrument and acknowledged it as Mayor of the Town of La Conner, to be the free and voluntary act of such party for the uses and purposes herein mentioned.

DATED this 16 day of April, 2008.

(SEAL)

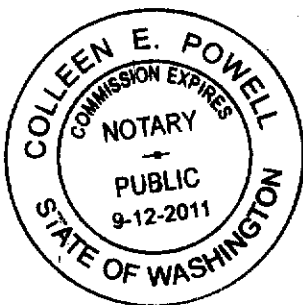


Notary Public

print name: Colleen E Powell

Residing at Burlington, WA

My commission expires 9/12/2011



SKAGIT COUNTY

Contract # C20080306

Judd Wilson, Mayor
(Date 4-18-08)

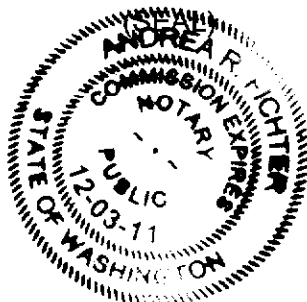
STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

DATED this 18 day of April, 2008.

A circular notary seal for Andrea R. Fichter, Notary Public, State of Michigan. The seal includes the text "ANDREA R. FICHTER", "COMMISSION EXPIRES 12/3/11", and "NOTARY PUBLIC STATE OF MICHIGAN".

A handwritten signature of Andrea R. Fichter in black ink.

Notary Public
print name: Andrea R Fichter
Residing at Stoughton County
My commission expires 12/3/11



Page 19 of 21

DEBRA HEINZMAN, Mayor
(Date 04-08-08)

**Town of Lyman
PO Box 1248
8334 S Main St.
Lyman, WA 98263-9800**

STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

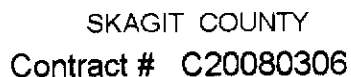
I certify that I know or have satisfactory evidence that Debra Heinzman is the person who appeared before me, and said person acknowledged that she signed this instrument, on oath stated that she was duly authorized execute the instrument and acknowledged it as Mayor of the Town of Lyman, to be the free and voluntary act of such party for the uses and purposes herein mentioned.

DATED this 8 day of April, 2008.

Print name: Debra E Boyd

Residing at Lyman

My commission expires April 27, 2011



TOWN OF HAMILTON:

Timothy Bates
TIMOTHY BATES, Mayor
(Date April 16 2008)

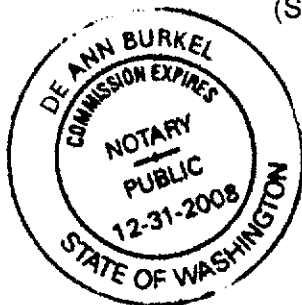
Mailing Address:
Town of Hamilton
584 Maple St.
P.O. Box 528
Hamilton, WA 98255

STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

I certify that I know or have satisfactory evidence that Timothy Bates is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was duly authorized execute the instrument and acknowledged it as Mayor of the Town of Hamilton, to be the free and voluntary act of such party for the uses and purposes herein mentioned.

DATED this 16th day of April, 2008.

(SEAL)



De Ann Burkel
Notary Public
print name: DE Ann Burkel
Residing at Burlington
My commission expires 12-31-08

Page 21 of 21

SKAGIT COUNTY
Contract # C20080306

Page 21 of 21

After Recording Return to:

Skagit County
Public Works Department
Attn: Kevin Renz,
Solid Waste Division Manager
1800 Continental Place
Mount Vernon, WA 98273

SKAGIT COUNTY
Amendment # A20100124
Page 1 of 12

**AMENDMENT TO
INTERLOCAL COOPERATIVE AGREEMENT BETWEEN SKAGIT COUNTY AND
CITIES AND TOWNS IN SKAGIT COUNTY FOR SOLID WASTE MANAGEMENT
(SKAGIT COUNTY CONTRACT No. 20080306)**

THIS AMENDMENT (herein "Amendment") to that certain interlocal cooperative agreement (herein the "Agreement" [defined herein below]) is made and entered into by and between the CITY OF MOUNT VERNON, a Washington Municipal Corporation; the CITY OF ANACORTES, a Washington Municipal Corporation; the CITY OF BURLINGTON, a Washington Municipal Corporation; the CITY OF SEDRO-WOOLLEY, a Washington Municipal Corporation; the TOWN OF LA CONNER, a Washington Municipal Corporation; the TOWN OF CONCRETE, a Washington Municipal Corporation; the TOWN OF LYMAN, a Washington Municipal Corporation; and the TOWN OF HAMILTON, a Washington Municipal Corporation (hereinafter collectively referred to as the "Municipalities"), and Skagit County, a political subdivision of the State of Washington ("County") pursuant to the authority granted by Chapter 39.34 RCW, INTERLOCAL COOPERATION ACT. The Municipalities and the County may be individually referred to herein as a "party", and may be collectively referred to herein as the "parties."

WHEREAS, the parties have entered into an interlocal cooperative agreement (herein the "Agreement") dated April 30, 2008 (Skagit County Contract #: C20080306) establishing the Solid Waste System Governance Board ("SWSGB"), and for purposes of solid waste management pursuant to the terms therein; and

WHEREAS, the SWSGB has authorized the construction of the new Skagit County Transfer and Recycling Station; and

WHEREAS, the construction of the new Skagit County Transfer and Recycling Station will require bond funding; and

WHEREAS, in order to facilitate bond funding for the new Skagit County Transfer and Recycling Station, the parties mutually desire to modify the terms of the Agreement pursuant to the terms of this Amendment herein.

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

A. TERMS OF AMENDMENT: The terms of the Agreement are amended as follows:

A.1. The following terms shall be included within Section 10. of the Agreement (DURATION; TERM OF AGREEMENT), and are amended, revised, modified, and/or supplemented to read as follows:

10.1 Subject to the terms of Section 10.2, the Parties agree to be bound by this Agreement until December 31, 2030, or until such time as the bonding obligations associated with the construction of the new Skagit County Transfer and Recycling Station have been fully satisfied and retired (whichever is sooner), or unless this Agreement is subsequently modified in accordance with the terms of this Agreement. This Agreement shall not sunset or expire, but shall continue in full force and effect. Individual Parties to this Agreement may, after December 31, 2030, or at such time as the bonding obligations associated with the construction of the new Skagit County Transfer and Recycling Station have been fully satisfied and retired (whichever is sooner), withdraw from this Agreement by giving sixty (60) days' notice to all other Parties to this Agreement.

10.2 Any Party to this Agreement may withdraw from this Agreement prior to the term of this Agreement as specified in Section 10.1, upon the full and complete satisfaction of all of the following conditions, and upon the following terms. (a.) The Party proposing early withdrawal from this Agreement must provide all other Parties with at least ninety (90) days written notice of intent to withdraw from this Agreement in accordance with the terms of this Section 10.2.; and (b.) The bonding obligations associated with the construction of the new Skagit County Transfer and Recycling Station must be eligible (according to the terms and conditions of the bonding obligations) for early payment (by the Party requesting withdrawal from this Agreement) at the time the request for early payment is made, and any such early payment must be expressly made in full accordance and compliance with the terms, restrictions, and conditions of said bonding obligations (as determined by the County); (c.) Any Party proposing early withdrawal from this Agreement must pay and satisfy in full its proportionate pro-rata share of the remaining bonding obligations associated with the construction of the new Skagit County Transfer and Recycling Station (including, but not limited to, principal and all past and future interest, and any fees, penalties, expenses, and/or charges arising from and/or related to the early payment in any way). The calculation of any Party's individual proportionate pro-rata share of the remaining bonding obligations associated with the construction of the new Skagit County Transfer and Recycling Station shall be made and provided only by the County, and shall be based upon the projected tonnage to be delivered to the System as per the respective Parties' waste deliveries for the preceding five (5) years, and shall be adjusted for future inflation and for projected population growth; and (d.) The SWSGB must approve any Party's request for early withdrawal from this Agreement by a simple majority vote; and (e.) Any Party who withdraws from this Agreement shall only be relieved of its future obligations for such Party's pro-rata share of the remaining bonding obligations associated with the construction of the new Skagit County Transfer and Recycling Station, and such withdrawal from this Agreement does not relieve any Party of such Party's obligation for other System Costs or liabilities.

A.2. Section 4. of the Agreement (COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN) is hereby amended, revised, modified, and/or supplemented to read as follows:

4. **COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN.** For the duration of their participation in this Agreement, each Party shall participate in the Comprehensive Solid Waste Management Plan prepared and periodically reviewed and revised pursuant to Chapter 70.95 RCW. For the duration of their participation in this Agreement, each Party authorizes the County to include in the Comprehensive Solid Waste Management Plan (CSWMP) provisions for the management of solid waste generated in each Party's jurisdiction. Parties executing this Agreement hereby agree to respectively adopt any CSWMP updates properly adopted by the SWSGB within 30 days of approval by the Department of Ecology. No party may veto, reject, or fail to adopt and CSWMP Amendments or Revisions as recommended by the SWSGB pursuant to this agreement. Until such time as the CSWMP is updated by the SWSGB consistent with this Agreement, the Parties understand and agree that this Agreement shall control with respect to any inconsistency between the CSWMP and this Agreement. The parties to this Agreement further understand and agree that the County shall promptly amend the CSWMP after execution of this Agreement solely as necessary to incorporate and reflect the terms of this Agreement in the CSWMP, which amendment shall be applicable to and deemed adopted by all Parties to this Agreement by virtue of their execution of this Agreement. The County shall take steps to explore the potential implementation of mandatory curbside solid waste collection in all unincorporated areas of Skagit County, and also to explore the possible revision of County solid waste regulations (as per the Skagit County Code) to expressly include more detailed flow control terms.

A.3. Section 13.1.1 of the Agreement is hereby amended, revised, modified, and/or supplemented to read as follows:

13.1.1 Major capital improvements to the System and the issuance of major system debt. "Major capital improvements" shall be defined as any capital expenditures in excess of Fifty Thousand Dollars (\$50,000) which modify the method or model of operation of the System. "Major system debt" shall mean debt securities, including bonds, debentures, or promissory notes in excess of Fifty Thousand Dollars (\$50,000) issued to fund capital improvements or operations, and repaid by System revenues or other System financial resources.

B. All other terms and conditions of the Agreement shall remain unchanged, unmodified, and in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Agreement this 23rd day of August, 2010.

APPROVED:
**BOARD OF COUNTY COMMISSIONERS
SKAGIT COUNTY, WASHINGTON**

Sharon D. Dillon
Sharon D. Dillon, Chair

Ron Wesen
Ron Wesen, Commissioner

Kenneth A. Dahlstedt
Kenneth A. Dahlstedt, Commissioner

Recommended:

By: [Signature]
Department Head

By: Lusta Lyne
Budget & Finance Director

Approved as to Indemnification:

By: Brenee Kadzmas 8/10/2010
Risk Manager

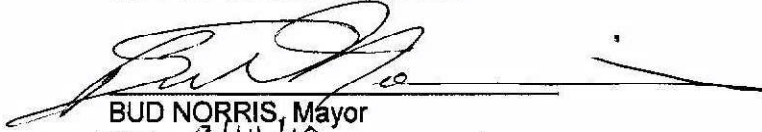
Approved as to Form:

By: [Signature]
Deputy Prosecuting Attorney

Attest:

Amber Kloepfer, Assistant
Clerk of the Board

CITY OF MOUNT VERNON:


BUD NORRIS, Mayor
(Date 9/14/10)

Mailing Address:
City of Mount Vernon
910 Cleveland Avenue
P.O. Box 809
Mount Vernon WA, 98273

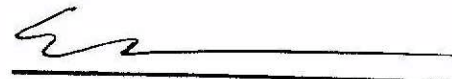
STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

I certify that I know or have satisfactory evidence that Bud Norris is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was duly authorized execute the instrument and acknowledged it as Mayor of the City of Mount Vernon, to be the free and voluntary act of such party for the uses and purposes herein mentioned.

DATED this 14th day of September, 2010.




Notary Public
print name: Kerri A. Grechishkin
Residing at Mount Vernon
My commission expires 7/3/11


Kevin Rogerson
City Attorney
City of Mount Vernon

CITY OF ANACORTES:

A. Dean Maxwell
DEAN MAXWELL, Mayor
(Date 8/21/10)

Mailing Address:
City of Anacortes
City Hall
P.O. Box 547
Anacortes, WA 98221

STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

I certify that I know or have satisfactory evidence that Dean Maxwell is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was duly authorized execute the instrument and acknowledged it as Mayor of the City of Anacortes, to be the free and voluntary act of such party for the uses and purposes herein mentioned.

DATED this 31st day of August, 2010.



Cheri L. Kahns
Notary Public
print name: Cheri L. Kahns
Residing at Mount Vernon
My commission expires 10-19-10

CITY OF BURLINGTON:

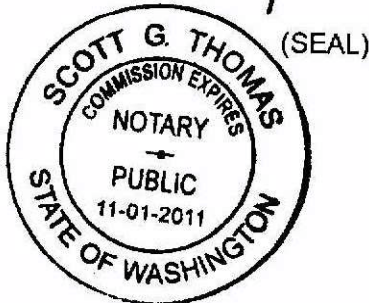
Edward J Brunz
ED BRUNZ, Mayor
(Date 9/1/2010)

Mailing Address:
City of Burlington
833 South Spruce Street
Burlington, WA 98233

STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

I certify that I know or have satisfactory evidence that Ed Brunz is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was duly authorized execute the instrument and acknowledged it as Mayor of the City of Burlington, to be the free and voluntary act of such party for the uses and purposes herein mentioned.

DATED this 1st day of SEPT, 2010.



Scott G Thomas
Notary Public
print name: Scott G Thomas
Residing at MOUNT VERNON
My commission expires 11-1-2011

MIKE ANDERSON, Mayor
(Date 8/3/10)

STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

DATED this 31st day of August, 2010.

Christine A. Salsena
Notary Public
print name: Christine A. Salsena
Residing at Skagit Co.
My commission expires 7-22-2013



TOWN OF LA CONNER:



RAMON HAYES, Mayor

(Date 8.27.2010)

Mailing Address:

Town of La Conner

P.O. Box 400

La Conner, WA 98257

STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

I certify that I know or have satisfactory evidence that Ramon Hayes is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was duly authorized to execute the instrument and acknowledged it as Mayor of the Town of La Conner, to be the free and voluntary act of such party for the uses and purposes herein mentioned.

DATED this 27th day of August, 2010.

(SEAL)



Notary Public

Print name: CYNTHIA S. ROWE

Residing at La Conner

My commission expires 6-30-2011



JUDD WILSON, Mayor
(Date 8-23-2011)

Town of Concrete
P.O. Box 39
Concrete, WA 98237

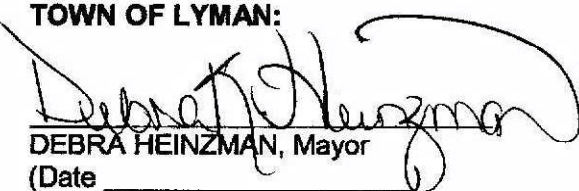
STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

DATED this 23 day of August, 2016



print name: Andrea R Fichter
Residing at Concrete, WA
My commission expires 12/03/11

TOWN OF LYMAN:


DEBRA HEINZMAN, Mayor

(Date _____)

Mailing Address:

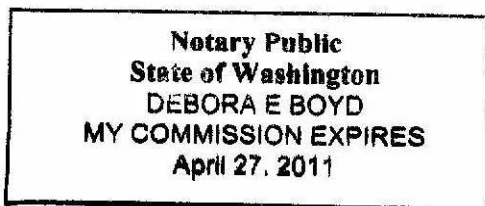
Town of Lyman
8334 S Main St
Lyman, WA 98263-9800

STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

I certify that I know or have satisfactory evidence that Debra Heinzman is the person who appeared before me, and said person acknowledged that she signed this instrument, on oath stated that she was duly authorized execute the instrument and acknowledged it as Mayor of the Town of Lyman, to be the free and voluntary act of such party for the uses and purposes herein mentioned.

DATED this 14 day of September, 2010.

(SEAL)




Notary Public
print name: Debora E Boyd
Residing at Lyman
My commission expires April 27, 2011

TOWN OF HAMILTON:

Timothy Bates
TIMOTHY BATES, Mayor
(Date 9/2/2010)

Mailing Address:
Town of Hamilton
584 Maple St.
P.O. Box 528
Hamilton, WA 98255

STATE OF WASHINGTON)
) SS
COUNTY OF SKAGIT)

I certify that I know or have satisfactory evidence that Timothy Bates is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was duly authorized execute the instrument and acknowledged it as Mayor of the Town of Hamilton, to be the free and voluntary act of such party for the uses and purposes herein mentioned.

DATED this 2nd day of September, 2010.

(SEAL)



Margaret S. Fleck
Notary Public
print name: Margaret S. Fleck
Residing at Lyman
My commission expires 8/1/2012

APPENDIX B

SITING FACTORS

INTRODUCTION

This SWMP is required to contain the following information to provide guidance for siting new solid waste disposal facilities (RCW 70.95.165).

DESCRIPTION OF THE PLANNING AREA

An understanding of the environmental, demographic and land use conditions in Skagit County is important because it provides a frame of reference for discussions of existing solid waste practices and future solid waste handling needs. To address these conditions in Skagit County, this section is divided into two parts: the natural environment and the human environment. The description of the natural environment includes a review of topography, geology, soils and climate. The description of the human environment includes the demographic and land use characteristics of the County.

Overview

Skagit County is situated in the northwestern part of Western Washington and constitutes a land area of 1,735 square miles. The County is characterized by mountains in the central and eastern parts, and by floodplains and rolling hills in the western part. It includes parts of the Mount Baker National Forest, North Cascades National Park, and Glacier Peak Wilderness area, as well as several islands in the San Juan archipelago.

Topography

The topography of Skagit County ranges from sea level along the western shores of the County to 8,966 feet above mean sea level at Mount Logan in the extreme eastern portion of the County. The County can be characterized into four general areas based on its topography: the Skagit Flats, the western islands, the upper Skagit and Sauk River Valleys, and the Cascades.

The Skagit Flats is a broad, fairly level valley extending west from Mount Vernon and Sedro-Woolley out to LaConner, Fir Island, Bow and Edison. The Flats contain the deltas of the Skagit and Samish Rivers and several prominent ridges that rise up from the valley floor. These ridges include Pleasant Ridge near LaConner, Burlington and Sterling Hill near Burlington, and Bay View Ridge near the Skagit County Regional airport. The Skagit Flats are bounded to the east by foothills, to the north by the

beginning of the Chuckanut Mountain Formation, and to the south and west by Samish, Skagit, and Padilla Bays.

The second topographic area of the County is located to the extreme west and includes all the islands of the County. The largest of these is Fidalgo Island, which is 165 square miles. These islands are generally hilly with outcroppings of bedrock that form steep cliffs throughout the area. Many of the islands rise up several hundred feet, including the Vendovi, Hat and Guemes Islands. The greatest elevation in this area is Mount Erie on Fidalgo Island, which is 1,275 feet high.

The upper Skagit River Valley east of Sedro-Woolley and the Sauk River Valley are generally the only non-mountainous areas in the central part of the County. The floodplains of these rivers have created valleys that are one to two miles wide between the mountains.

The most prominent topographic area of the County consists of the Cascade foothills and mountains. These formations dominate the eastern two-thirds of the County.

Geology and Soils

The geology of the County was largely influenced by two factors: periods of volcanic action and mountain building (uplifting and folding), and episodes of glacial activity. The most recent glacial activity occurred during the Pleistocene ice age roughly 11,000 years ago. The Cascade Mountains were formed during the episodes of volcanic activity and uplifting. At that time, the Puget Sound was a wide, deep trough without the present-day lowlands. The advance and retreat of the continental glacier from Canada resulted in vast deposits of sediments by glacial streams onto the lower slopes and valley bottoms, subsequently building up the present lowlands of the Skagit Flats. Local alpine glaciers have continued to carve the Cascades into a series of sharp peaks, ridges and deep valleys.

Sediments deposited from glacial meltwater and the Skagit and Samish Rivers created the delta of the Skagit Flats. As the delta expanded outward from the mountains, it engulfed several low landmasses that were former islands. These include Bay View and Pleasant Ridge, which are composed of unconsolidated deposits similar to those found on the terraces of the Cascade foothills.

One of the main geologic features in the County is that bedrock is at or near the surface throughout the region except in the river valleys and Skagit Flats area that have extensive deposits of alluvial and glacial deposits. Generally, bedrock consists of metamorphic and granitic rocks, although some volcanic and sedimentary rocks also exist.

There are three main types of glacial deposits: outwash, till, and lacustrine deposits. Outwash deposits were formed as the continental glacier advanced and receded. As it

moved forward, the glacier scoured the earth's surface and deposited large quantities of sand and gravel in the meltwater at the head and sides of the glacier. Likewise, when the glacier receded, it formed meltwater streams that deposited sand and gravel. Outwash deposits consist of medium to coarse-grain sand and gravel with some cobbles and boulders. These deposits are moderately permeable and thus are often a source of groundwater. This material may be unstable when found on steep hillsides.

Till is made up of clay, silt, sand, pebbles, and boulders and was deposited as a sheet at the base of the ice. As the glacier overrode this material, it was compressed into a concrete-like mixture. Till generally has low permeability due to the predominance of silt.

Lacustrine deposits are made up of fine-grained sand and silt deposited by glacial meltwater. These fine sediments may be found in lakes or river valleys that were dammed by glaciers. Some of these deposits may be perennially wet and unstable.

Nine categories of soil types have been identified and mapped in Skagit County by the U.S. Department of Agriculture's Soil Conservation Service (SC 1994). These categories provide a generalized sense of soil type, characteristics, and suitability for various land uses. Approximately, 25% of the County is made up of soil types that are characteristic of flood plains and deltas and 75% are characteristic of soils on upland and mountain areas. The nine categories are:

Skagit-Sumas-Field: These soil types are very deep, poor to moderately well-drained with a high water table, and are located mainly on the flood plains and delta of the Skagit Flats. Comprising 16% of the County, these soils are made up of silt loam to 12 inches deep, silty-clay loam to 24 inches deep, and very fine sandy-loam to 60 inches deep.

Larush-Pilchuck: Larush-Pilchuck soils are found in the floodplains of the Skagit and Sauk River Valleys east of Sedro-Woolley. These are very deep soils that are moderately well-drained. Typically the upper layers of these soil types are silt loam and sandy loam with underlying areas of gravel that in some areas is very gravelly. These soil units make up 9% of the County.

Barneston-Dystric-Xerorthents-Indianola: Located along the terraces of the Skagit, Sauk, and Samish Rivers, these soils are very deep and well-drained. Generally underlain by glacial till and making up 9% of the County, this soil is characterized by high to very high gravel content where it is located on or near escarpments.

Tokul-Skipopa-Dystric-Xerochrepts: These soil types are located mainly on glaciated uplands and lakebed terraces in the northwestern and southwestern parts of the County. They make up 6% of the soil types and consist of soils that are

moderately to poorly-drained. Surface layers range from gravelly loam to silt loam. Under this layer, the soil is made up of gravelly, fine sandy-loam and silt loam. Glacial till forms a lower layer at a depth from 20 to 40 inches deep.

Vanzandt-Mountborne-Squires: Approximately 21% of the County contains these soil types. They are characterized by moderately deep and well-drained soils that are found anywhere from level to very steep slopes. They are generally located above the terraces of the Skagit and Sauk Rivers. A dense glacial till layer is located 20 to 40 inches below the surface and the soils over this layer consist of gravelly to very gravelly loam.

Chuckanut-Cathcart: These deep and well-drained soil units are only found in 3% of the County and are located south of Mount Vernon to the Snohomish border. A sandstone layer is located from 40 to 60 inches below the surface. Surface layers are typically made up of loam and gravelly loam.

Bow-Coveland-Swinomish: These soils are located exclusively in the western part of the County, including the area around Mount Vernon, the airport, and all the western islands. Making up 5% of the area, these soil units are somewhat poorly to moderately well-drained and moderately deep to very deep. These soil units are indistinguishable and usually are made up of gravelly loam with a clay content that increases with depth particularly for the Bow soil series and there is low permeability, with a perched water table on a seasonal basis.

Skykomish-Jug-Saxon: Found on terraces and hills in the south-central and north-central part of the County, these soil units are very deep and moderate to excessively well-drained and make up 6% of the area. These soils are associated with glacial outwash deposits. They have a high to very high gravel/cobble content with occasional inclusions of silty, clay loam.

Wollard-Kindy-Diobsud: The central and eastern parts of the County contain these soil units, which make up 25% of the area. These soils are moderately deep and well-drained. They formed from volcanic ash and glacial till. They are comprised of gravelly silty loam underlain by glacial till approximately 35 inches below the surface.

Land uses can be affected by the characteristics and placement of the nine soil categories. For instance, farmland is largely concentrated in the Skagit-Sumas Field and Larush-Pilchuck soils due to their fertility and location in level areas. Wetness is a limiting factor for crop production in the Skagit-Sumas Field soils and flooding occurs in both types of soils. Timber production can accommodate a wider variety of the soil types. In particular, timber production is high for the first six soil types listed above and moderate for the other three types. The main restriction on commercial forest

production areas is not so much the soil unit as the steepness of slopes and use of land for other purposes such as agriculture.

Climate

Skagit County has a marine climate that is affected by air currents originating from the Pacific Ocean. These currents moderate temperatures resulting in mild, wet winters and comfortably warm, drier summers. There are few hot days, and snow and freezing weather are not common except at higher altitudes. Prevailing winds generally blow from the southwest averaging nine miles per hour, but during the summer winds are light and blow out of the north and northwest. Sunshine hits Skagit County approximately 65% of the time in summer and 25% in winter. Precipitation in the County increases as one moves towards the Cascades.

Two major meteorological patterns dominate local weather. In the late spring, a Pacific high-pressure ridge forms off the Washington coast forcing storms north of Washington, creating dry stable weather conditions. During winter, a stationary low-pressure ridge develops in the Aleutian Islands and sends storms throughout the Puget Sound. These storms occasionally produce damaging winds and are accompanied by heavy rains and flooding.

Temperature inversions can form during periods of stable weather, particularly during the winter at night. These inversions often last until late in the day and may sometimes persist for several days. Temperature inversions cause pollutants emitted at ground level to collect in high concentrations and can cause health problems for people with respiratory or heart ailments. Carbon monoxide from cars and particulate matter from wood stoves are the main pollutants of concern during temperature inversions.

Vegetation

Skagit County has a diverse array of vegetation that is greatly influenced by topography, soil conditions, rainfall, and people. Plant communities can be characterized into several major areas based on the conditions listed above including: urban and agricultural, lowland valleys and forest, subalpine zones, and the alpine zone. Native vegetation has largely been altered or disturbed in the urbanized and agricultural lowland areas. Vegetation in farm areas consists of a variety of agricultural and flower crops while ornamental vegetation and grass dominate urban areas.

In well-drained lowlands, coniferous and deciduous trees compete for dominance and include such species as western hemlock, vine maple, western yew and Pacific dogwood. In the understory, sword fern, salal, Oregon grape and salmonberry thrive. Swampy lowland areas find western red cedar, devils club, skunk cabbage, and lady fern while bigleaf maples are found on moist foothill terraces. Mushrooms are also common, particularly along the Skagit River north of Sedro-Woolley.

The subalpine zone is located below the alpine zone and is dominated by conifers. Fir trees are the most common species and include Douglas fir, Pacific silver fir, and noble fir. Understory plants include huckleberry, common beargrass, and rustyleaf.

The alpine zone has the harshest climate and is located above the treeline and beneath the glaciers of the high Cascades. Few plant species survive year-round in the alpine zone because they are covered by snow for 8 to 9 months of the year. However, during the summer, alpine meadows often bloom with lush vegetation. Flower species and shrubby communities coexist with moss and lichen-covered rocks. Plant species include lupine, paintbrush, valerian, lousewort, cassiope, and mountain heath.

Animals

Skagit County contains many different environments including open salt water, rocky and sandy shores, fresh water, wet and dry coniferous forests, riparian woodlands, dry grasslands, wet meadows, shrubby thickets, parks and gardens, and farmland. The diversity of habitats has created environments suitable for a wide variety of birds, fish, reptiles, amphibians, and animals. In some cases, the habitat found in the County is critical for the survival of a species and there are many protected areas such as the North Cascades National Park.

The bird populations in the County include both migratory and non-migratory birds. Migratory birds depend heavily on the Skagit Flats, which are an important component of the Pacific flyway. Many migratory birds use this area to rest and forage as they make their way south in the fall and north in the spring. The tide flats at the mouth of the Skagit River are particularly important. Some of the migratory birds include trumpeter swans, Canadian geese, avocets, songbirds, plovers, terns, and many species of ducks. Other notable birds in the County include eagles, ospreys, blue herons, sparrows, hawks, sea gulls, grouse, quails, doves, pigeons, and owls.

Common animal populations found in the County include smaller species such as the shrew, mole, gopher, bat, marten, skunk, opossum, raccoon, and squirrel and larger species such as black bear, mountain goat, black-tailed deer, coyote, elk, wolf, and fox.

The aquatic environment is equally diverse and includes many species of fish, mammals, crustaceans, and shellfish. Salmon is probably the most well-known fish species in the Puget Sound, however there are many other species that provide commercial as well as recreational opportunities such as starry flounder, ling cod, rockfish, Pacific herring, and hake. Freshwater fish species include rainbow trout, cutthroat, brook trout, Dolly Varden, sculpin, and stickleback, as well as salmon. Other species that live in the marine environment include seals, Orca whales, porpoise, crab, octopus, oysters, clams, scallops, and shrimp.

SOLID WASTE FACILITY SITING FACTORS

This SWMP is required to contain the following information to provide guidance for siting new solid waste disposal facilities. This requirement (RCW 70.95.165) refers specifically to disposal facilities (landfills and incinerators), but these criteria could also be considered in the siting of other solid waste facilities. Furthermore, local code (Skagit County Code, Chapter 12.18) defines disposal sites more broadly, and includes any site “where final treatment, utilization, processing, transfer for long-haul or deposit of Skagit County waste occurs, including but not limited to locations where landfilling, composting or incineration is carried out.”

Soils and Geology

Soils and underlying geology are important considerations for solid waste management facilities. The appropriate type of soil varies somewhat depending on the type of solid waste facility, but any building or other structure must be built upon a stable foundation. With the possible exception of one or two soil types, such as the Skagit-Sumas-Field soils in the flood plains and delta of the Skagit Flats, the soils in Skagit County are generally acceptable for foundations.

Given the complicated nature of the soils in Skagit County, detailed studies will be necessary to evaluate potential sites for any proposed solid waste disposal facilities. Geologic hazards will also need to be evaluated at that time. The major geologic hazards existing in Skagit County include the occurrence of seismic, landslide, and erosion events and processes.

Seismic events are a normal occurrence in the Puget Sound Region and Skagit County has historically experienced many earthquakes. Most earthquakes in the County are shallow, with the quakes being only barely or not all perceptible, but Whatcom and Skagit County have also been the sites of some of the largest earthquakes in the recorded history of the State. The largest known earthquake in the State occurred in 1872 in an area east of Mount Baker. Other earthquakes have occurred in Skagit County with epicenters located just west of Fidalgo Island in the Puget Sound (1896) and in the North Cascades (1915). Earthquakes tend to occur more frequently along the Skagit River Valley below Rockport and in the western third of the County.

The uniform building code classifies areas of the United States into seismic zones for the purposes of developing design criteria for building construction that minimizes the potential for damage from earthquakes. The scale ranges from 1 to 4 with the higher number equated to greater potential damage from earthquakes. For example, a rating of 4 includes those areas likely to have serious damage because of their proximity to major fault systems, such as the San Andreas Fault in California and the Alaska subduction zone. Skagit County and the Puget Sound basin are classified as seismic zone 3 because of the history of earthquakes.

Erosion and landslides are other geologic hazards. Erosion is caused by the actions of wind, rain, and surface water on soils. Landslides can be caused in several ways including earthquakes, erosion, rain-saturated soils, and gravity. Although soil erosion and landslides are naturally occurring processes, they are aggravated when vegetation is removed, topography is modified, and surface water runoff is uncontrolled. These events are more pronounced in areas with steep slopes (over 30%). Landfills and other solid waste facilities could be located in areas that have slopes greater than 30%, however these sites are also more difficult to engineer and more costly to build, in addition to the greater potential for erosion and landslides to occur.

Groundwater

Distance to groundwater, measured in feet or in terms of the time that it takes for water to travel from the surface to the groundwater level, is an important consideration for the siting of solid waste facilities. Shallow bodies of groundwater and/or fast travel times are a problem due to the risks associated with spills and contaminated runoff from waste facilities. Other factors such as the existing and potential beneficial uses of the groundwater are also important factors to consider, especially if the groundwater is or could be used for drinking water. A significant percentage of the population in Skagit County depends on private wells for drinking water. Agricultural uses (irrigation) also depend on a relatively clean source of groundwater and far outweigh the amount used for drinking water.

Groundwater must also be considered when siting or designing solid waste facilities because shallow groundwater can result in higher construction and maintenance costs, interfere with excavation, and require special foundations.

In Skagit County, groundwater can be found in the unconsolidated alluvial and glacial deposits of sand and gravel found in the lowland areas in the major river valleys and Skagit Flats. The igneous and metamorphic rocks that make up the bedrock essentially form the bottom of the groundwater layer, although some fractures and joints in these rocks may yield small localized quantities of water. Aquifers are recharged primarily from local precipitation.

The highest yields of groundwater are found in the Mount Vernon, Burlington, and Sedro-Woolley areas where alluvial deposits of sand and gravel are thickest. These supplies may yield more than 250 gallons of water per minute at depths of 100 feet. Secondary areas of importance include the upper Skagit River valley from Sedro-Woolley to Marblemount, the Baker River Valley, the Sauk River Valley, and areas northwest and southwest of Mount Vernon, but excluding the areas bordering the Puget Sound (which are made up of finer-grained material). Bay View and Pleasant Ridge are composed of older unconsolidated deposits that produce adequate quantities of groundwater from sand and gravel strata at a depth near sea level. The

islands of the County generally have less groundwater supply because of the prominence of bedrock located near the surface.

The County's groundwater is generally suitable for most purposes, although some groundwater contains excessive quantities of minerals such as iron and this water may exhibit extreme hardness. Some water from wells in the delta show small concentrations of chloride and there is the potential for saltwater encroachment in this area. In several of the urban areas, groundwater is relatively near the surface and is overlain with coarse sediments making these aquifers vulnerable to contamination from surface sources.

Flooding

Areas known to have experienced flooding are generally not acceptable sites for solid waste facilities. Solid waste facilities often entail risks not associated with other types of development, such as the potential to create contaminated runoff. Additionally, solid waste facilities must remain operational during and after natural disasters such as floods, in order to handle the large amount of debris that may be created.

Significant flood events in Skagit County have been recorded as early as 1815 and have occurred as recently as October 2003. Because much of the urban development and agricultural land lies in the lowland areas, flooding can cause a significant amount of damage and financial loss.

Floods can occur during most seasons of the year. Winter floods are the result of warm weather and excessive rainfall on a heavy snowpack. These floods cause a rapid increase of the rivers to flood stage and beyond, and may recede just as rapidly. Snowmelt from glaciers can cause summer floods, which have a lower crest but last for a longer duration and have higher volumes. Floods in the fall can be caused by heavy rains, such as the flooding that occurred in October 2003.

Flooding has been somewhat less severe since the 1920's when dams were constructed on the Baker and Skagit Rivers that provide some retention and upstream storage of floodwaters. There has also been an extensive program of levee construction along the Skagit River downstream from Sedro-Woolley. The flood events of 1995 and 2003, however, indicate that flooding is a still a problem, especially for Hamilton, Mount Vernon, Burlington, and low-lying rural areas adjacent to the rivers. The Skagit River has also occasionally overflowed the low divide at Sedro-Woolley and added to flooding in the Samish River basin.

Surface Water

Numerous rivers, creeks and small lakes are present throughout the County. These bodies of water pose a serious constraint for locating solid waste facilities, since the facilities frequently present a possible risk of contamination for surface water.

Regulatory standards (Chapter 173-351-140 WAC) require that new disposal facilities be located more than 200 feet from surface waters, which eliminates a substantial amount of land for a water-rich area such as Skagit County.

The surface waters of the County are made up of two major river systems (the Skagit and Samish), lakes, wetlands, and the Puget Sound. The Skagit watershed basin is the largest drainage system in the Puget Sound and contains a multitude of rivers, streams, and lakes within its boundaries. The main river drainages in the basin include the Skagit and Samish Rivers, Colony Creek, and Indian, Joe Leary, Telegraph and Sullivan Sloughs. In addition, there are approximately 2,990 identified streams associated with the basin that stretch from the Puget Sound to Canada. The Skagit River is the longest river in the Skagit watershed basin and in the Puget Sound region, with 162 miles of mainstem river. The main tributaries to the Skagit River include the Cascade, Sauk and Suiattle Rivers. The Samish River contains 29 miles of mainstem river channel and is the second largest river system in the County.

Other surface waters are made up of numerous lakes and wetland areas, the largest of which include Lake Shannon, Lake Cavanaugh, Lake Campbell, Big Lake, Lake Erie, and Clear Lake. In addition, the western part of the County is surrounded and outlined by the waters of the Puget Sound including the straits of Juan de Fuca and Rosario, and Padilla, Samish, and Skagit Bays.

Slope

Part of Skagit County is mountainous and has steep slopes that pose serious problems for solid waste disposal facilities. Steep slopes pose problems for site development and for future access. The lower valleys and coastal terrace areas have gentler slopes but these areas also have high value for other purposes, such as agriculture and housing.

Cover and Liner Materials

Cover and liner materials are important because their presence on-site at landfills and other disposal facilities will reduce the cost of construction, operation and maintenance. Cover materials are required to ensure that waste materials are securely buried and to prevent gas and odors from being released in an uncontrolled fashion, while liners are needed below the landfill to contain the leachate that is created by landfills. Silt and clay can be used for liners and cover, while coarser materials (sand and gravel) can be used for gas venting, leachate collection and road construction. A variety of materials can be used for intermediate cover. As previously discussed under the “soils and geology” subsection of this chapter, many of these soils are present throughout the County. In the absence of naturally-occurring materials, however, synthetic materials can be used instead.

Capacity

The capacity of a waste disposal facility will obviously affect the number of potential locations that can be used for it. It is generally easier to find an acceptable parcel of land for smaller facilities. Conversely, there are significant economies of scale for all waste disposal facilities, and the base cost per ton for waste brought to a small facility will be much higher than for a larger facility.

Land Use

Skagit County encompasses an area of 1,735 square miles with the western quarter of the County containing almost all of the urban development. In 1970 more than 50% of the people lived in the unincorporated areas of the county. Currently, 41% of the people live in incorporated areas.

Urbanized areas are located generally along two routes: Interstate 5 (I-5) and State Route 20 (SR-20, the North Cascades Highway). Mount Vernon and Burlington are located on I-5 and Anacortes, Concrete, Hamilton, Lyman, and Sedro-Woolley are located on SR-20. LaConner is the only other major urban area and is located on the Swinomish Channel west of I-5 and south of SR-20. There are also urbanized densities (one to five acre lots) in approximately 14 unincorporated communities and residential developments.

Land uses in the unincorporated area of the County are focused on natural resource use and include timber, agriculture and mining. Approximately 877,000 acres of the County are forested lands and parks, with almost half of this acreage owned by the Federal government. Farmland comprises approximately 89,300 acres.

The Skagit County Board of County Commissioners adopted a Comprehensive Plan in 1997 (SC 1997). The Skagit County Comprehensive Plan and subsequent development regulations are the tools for designation of land use. The development regulations ensure that development occurs in a way that protects private property rights and existing land uses while also protecting natural resources, promoting economic growth, and assuring the compatibility of proposed land uses with existing ones. The cities and Tribes also have land use plans, zoning codes and other policies and regulations that may affect land use and development.

Other special considerations may apply to specific sites and/or specific types of facilities. The Federal Aviation Administration has stipulated that landfills cannot be located within 6 miles of an airport unless a waiver is obtained. Because birds that are attracted to landfills pose a hazard to aircraft, the granting of this waiver is dependent upon the magnitude of the anticipated bird population. Areas designated as critical habitat by responsible agencies (i.e., the U.S. Fish and Wildlife Service and Washington State Department of Wildlife) are considered regulatory exclusions for landfill siting. Information concerning such areas is available from the appropriate State and Federal wildlife management agencies.

Air Emissions and Air Quality

Siting and operating a new landfill or other solid waste facility could impact air quality. Dust, gases, odors, particulates and vehicle emissions are all potentially increased by landfills and other disposal operations. In certain cases, however, the centralization of such emissions may be preferable to the impacts caused by other options. Any proposal would need to be examined for the net impact on air quality.

Air quality in the County is considered good and all parts of the County generally meet air quality standards. There are periods when local air quality can deteriorate, however, due to weather patterns and/or large amounts of open burning or wood stove and fireplace usage. These problems usually occur during times of stable weather when there is an absence of wind.

Particulates are occasionally an air pollutant of concern. Particulates are small particles of dust, dirt, smoke, and other debris that are carried up into the atmosphere by air currents, and can be damaging to respiratory systems. This material is generated by many types of sources including combustion sources (wood stoves and forest slash burning), vehicle exhaust, industrial processes, and dust from vehicle traffic and land clearing activities. Particulate matter may be particularly problematic during temperature inversions in urban areas where burning from wood stoves and fireplaces occurs.

Summary of Siting Factors

Based on the above discussion of siting factors, it can be concluded that only limited portions of Skagit County would be available for siting a new solid waste disposal facility such as a landfill or incinerator. A more detailed analysis of siting factors is not being provided at this time due to the unlikely possibility of siting such a disposal facility in the County. The above siting factors and the following brief discussion of the siting process could be used, however, to provide guidance for other types of solid waste handling or treatment facilities, such as transfer stations, composting plants, and recycling facilities.

SOLID WASTE LANDFILL SITING PROCESS

Any new facilities developed in the future will have to meet the State and local standards current at that time. State standards include the Solid Waste Handling Standards (Chapter 173-350 WAC) and the Criteria for Municipal Solid Waste Landfills (Ch. 173-351 WAC). Local standards include the County Code (especially Chapters 12.16 and 12.18), municipal codes, the Skagit County Comprehensive Plan (SC 2016), and zoning codes.

The siting process for disposal facilities could include the following steps:

1. Site Identification: For a public disposal facility, the process of identifying sites may include soliciting nominations from citizens and interested parties, identification of major landholders and City/County properties, and other activities to initially identify as many sites as practical. For a private site, the site selection process may consist primarily of an inventory of sites currently owned or available for purchase.
2. Broad Site Screening: The second step typically involves evaluating potential sites for “fatal flaws”, such as unsuitable neighboring land use, distance from the point of waste generation, site size, steep slopes, floodplain area, wetlands, surface water or shorelines. For a public site, the goal should be to retain up to 12 sites after this step is completed. For a private facility or other cases where there may be only a few sites to begin with, only one or two sites need to survive this evaluation.
3. Detailed Site Ranking: After sites with fatal flaws have been eliminated, the remaining sites should be evaluated against more detailed criteria such as the availability of utilities (water, sewer, and electricity), traffic impacts and road access, and other factors affecting the ability to develop and use the site. For a public effort, no more than four sites should remain after this step is completed.
4. Detailed Site Evaluation: The final step in evaluating potential sites involves a detailed investigation to assess environmental impacts, in accordance with the State Environmental Policy Act (SEPA). This step should result in the recommendation of a preferred site.
5. Siting Decision: Finally, the decision to proceed with a recommended site should be based on environmental, engineering, financial and political factors, and then more detailed plans can be developed and the permitting process can begin.

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APPENDIX C

UTC COST ASSESSMENT QUESTIONNAIRE

INTRODUCTION

By State law (RCW 70.95.090), solid waste management plans are required to include:

“an assessment of the plan’s impact on the costs of solid waste collection. The assessment shall be prepared in conformance with guidelines established by the Utilities and Transportation Commission. The Commission shall cooperate with the Washington state association of counties and the association of Washington cities in establishing such guidelines.”

The following cost assessment has been prepared in accordance with the guidelines developed by the Utilities and Transportation Commission (UTC). The purpose of this cost assessment is not only to allow an assessment of the impact of proposed activities on current garbage collection and disposal rates, but to allow projections of future rate impacts as well. The UTC needs this information to review the potential impact of this Solid Waste Management Plan (SWMP) to the certificated waste haulers that it regulates. For these haulers, UTC is responsible for setting collection rates and approving proposed rate changes. Hence, the UTC will review the following cost assessment to determine if it provides adequate information for rate-setting purposes, and will advise Skagit County as to the possible collection rate impacts of proposed programs. Consistent with this purpose, the cost assessment focuses primarily on those programs with potential rate impacts.

SUMMARY

A significant recommendation in this SWMP is to adopt a minimum service level ordinance that would require all waste collection customers in the certificated areas to also receive recycling service. Due to the current poor state of recycling markets, however, implementation of this recommendation is not being proposed until 2019. Several recommendations, such as the need for a new staff person and increased publicity for specific programs, will lead to an increase in the tipping fee if fully implemented (for an increase as high as \$150,000 per year). Re-bidding the waste export contract in 2021 could either increase or decrease the tipping fee. Operating costs for Waste Management will be increased if they implement this SWMP due to more promotion for the organics collection program. Other recommendations made in the SWMP are primarily refinements to existing programs.

COST ASSESSMENT QUESTIONNAIRE

PLAN PREPARED FOR: Skagit County

PREPARED BY: Rick Hlavka, Green Solutions

CONTACT TELEPHONE: 360-897-9533

DATE: July 7, 2016

DEFINITIONS

These definitions as used in the Solid Waste Management Plan and the Cost Assessment Questionnaire.

Throughout this document:

YR.1 shall refer to 2017.

YR.3 shall refer to 2019.

YR.6 shall refer to 2022.

Year refers to (circle one) calendar (Jan 01 - Dec 31)
fiscal (Jul 01 - Jun 30)

1. DEMOGRAPHICS:

1.1 Population

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

YR.1: 124,270 YR.3: 126,920 YR.6: 131,510

1.1.2 For counties, what is the population of the area **under your jurisdiction?**
(Exclude cities choosing to develop their own solid waste management system.)

YR.1: 124,270 YR.3: 126,920 YR.6: 131,510

1.2 References and Assumptions

Population figures are taken from Table 2-2 of the Skagit County Solid Waste Management Plan, Preliminary Draft, July 2016.

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

2.1 Tonnage Recycled

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

YR.1: 79,980 YR.3: 81,880 YR.6: 84,730

2.2 Tonnage Disposed

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

YR.1: 97,480 YR.3: 99,800 YR.6: 103,270

2.3 References and Assumptions

All recycling and disposal tonnages are projected, and are from Table 2-9 of the Skagit County Solid Waste Management Plan, Preliminary Draft, July 2016.

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

3.1 Waste Reduction Programs

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

IMPLEMENTED

Various existing activities are already being conducted for waste reduction and public education, see Chapters 3 and 9 for details.

PROPOSED

Additional waste reductions activities proposed in the plan include:

- implement a program to educate residents and business about avoiding food waste.
- the availability of volume-based rates will be better publicized.
- options for clothing reuse and recycling will be promoted.
- the County will explore options for a charity to collect reusables at the transfer station.
- the County will distribute videos that provide waste reduction tips.
- a county-wide ban on yard debris disposal will be considered.
- smart shopping will be promoted.
- fix-it workshops will be promoted.
- create a task force to address consistency and accessibility of public education.

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

IMPLEMENTED

YR.1: \$118,400 YR.3: \$130,500 YR.6: \$151,100

PROPOSED

YR.1: \$40,000 YR.3: \$44,000 YR.6: \$51,000+

3.1.3 Please describe the funding mechanism(s) that will pay the cost of the programs in 3.1.2.

Implemented		
Year 1	Year 3	Year 6
Tipping Fees and CPG Funds	Tipping Fees and CPG Funds	Tipping Fees and CPG Funds
Proposed		
Year 1	Year 3	Year 6
Tipping Fees, CPG Funds, and Other Funds as Available	Tipping Fees, CPG Funds, and Other Funds as Available	Tipping Fees, CPG Funds, and Other Funds as Available

3.2 Recycling and Organics Programs

3.2.1 Proposed or implemented recycling and organics programs:

IMPLEMENTED

Existing recycling and organics programs are extensive and are managed by several different parties, see Chapters 4 and 5 for more details.

PROPOSED (see pages 4-14 to 4-15 and 5-9 to 5-10)

- Skagit County's goal for recycling and composting is 65%.
- Skagit County will adopt a minimum service level ordinance requiring all waste collection subscribers to also receive curbside recycling service.
- Skagit County will consider adopting requirements for C&D recycling.
- Skagit County will support product stewardship programs as appropriate.
- Consider increasing curbside recycling frequency to weekly in all areas.
- Disposal bans will be considered for specific materials where alternative handling methods provide improved management of these materials.
- Washington State should enact a bottle bill to divert glass away from curbside recycling programs.
- Mandatory commercial recycling should be examined as a possible program to be implemented county-wide.
- More promotion must be conducted for the mixed organics collection services.
- Contaminated commercial setouts for mixed organics should be rejected by the collection companies.
- Compostable plastics should not be collected with the mixed organics.
- The cities, towns and county will promote the use of compost.

3.2.2 Costs for recycling and organics programs implemented and proposed.

IMPLEMENTED

The costs for existing recycling and organics programs are incurred by a variety of parties. The County's expenses are included in the operating costs for the transfer facilities plus administration expenses (staffing), minus revenues from sales of recyclable materials (see Table 9-1). Other costs are incurred by residential and commercial customers. Residential recycling rates varied from \$2.65 to \$9.00 per month in 2015, depending on the service area (see Table 6-1).

PROPOSED

Proposed changes to the recycling and organics programs will lead to an additional expense for the County for a Recycling Coordinator (see Section 9.6).

Proposed changes to residential and commercial services could lead to additional expenses for those rate-payers, although it is expected that increased costs for recycling will be partially or wholly offset by reduced waste collection costs.

3.2.3 Funding mechanism(s) that will pay the cost of the programs in 3.2.2.

Implemented		
Year 1	Year 3	Year 6
Garbage Rates, Other User Fees, Grants and Tipping Fees	Garbage Rates, Other User Fees, Grants and Tipping Fees	Garbage Rates, Other User Fees, Grants and Tipping Fees
Proposed		
Year 1	Year 3	Year 6
Garbage Rates, Other User Fees, Grants and Tipping Fees	Garbage Rates, Other User Fees, Grants and Tipping Fees	Garbage Rates, Other User Fees, Grants and Tipping Fees

3.3 Solid Waste Collection Programs

3.3.1 Regulated Solid Waste Collection Programs

Fill in the table below for each UTC regulated solid waste collection entity in your jurisdiction.

UTC Regulated Hauler Name Waste Management of Skagit County
G-permit # G-237

	<u>YR. 1</u>	<u>YR. 3</u>	<u>YR. 6</u>
RESIDENTIAL			
- # of Customers	12,140	12,400	12,800
- Tonnage Collected	9,660	9,900	10,200
COMMERCIAL			
- # of Customers	350	360	370
- Tonnage Collected	3,210	3,300	3,400
DROPBOX			
- # of Hauls	2,260	2,310	2,380
- Tonnage Collected	6,180	6,300	6,500

3.3.2 Other (non-regulated) Solid Waste Collection Programs

Fill in the table below for other solid waste collection entities in your jurisdiction.

Hauler Name City of Anacortes

	<u>YR. 1</u>	<u>YR. 3</u>	<u>YR. 6</u>
# of Customers	7,900	8,080	8,350
Tonnage Collected	8,000	8,200	8,400

Hauler Name City of Burlington (Contract with Waste Management)

	<u>YR. 1</u>	<u>YR. 3</u>	<u>YR. 6</u>
# of Customers	3,790	3,870	4,000
Tonnage Collected	11,740	12,000	12,400

Hauler Name City of Mount Vernon

	<u>YR. 1</u>	<u>YR. 3</u>	<u>YR. 6</u>
# of Customers	10,020	10,240	10,580
Tonnage Collected	19,100	19,500	20,200

Hauler Name City of Sedro-Woolley

	<u>YR. 1</u>	<u>YR. 3</u>	<u>YR. 6</u>
# of Customers	4,230	4,320	4,470
Tonnage Collected	5,940	6,100	6,300

3.4 **Energy Recovery & Incineration (ER&I) Programs**

NA, no such facilities.

3.5 **Land Disposal Program**

NA, no such facilities.

3.6 **Administration Program**

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

Budgeted Cost

YR.1: \$1,646,350 YR.3: \$1,782,030 YR.6: \$2,092,920

Funding Source

YR.1: tipping fees YR.3: tipping fees YR.6: tipping fees

3.6.2 Which cost components are included in these estimates?

Expenses that are included under administration costs include staffing (including a new position for a Recycling Coordinator), insurance, B&O tax, roads, consultants, health department support, rate reviews in 2017 and 2022, and other support.

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

Tipping fees.

3.7 Other Programs

For each program in effect or planned which does not readily fall into one of the previously described categories please answer the following questions.

NA, no such programs.

3.8 References and Assumptions (attach additional sheets as necessary)

For 3.1.2, the costs for current waste reduction and public education programs in Skagit County are included in several places in the county's budget for solid waste and the Health Department, and part of these costs are borne by cities and the private sector. Much of the County's cost is shown in the line item for education in the county's solid budget (see Table 9-1, p. 9-4, of the plan). These are the figures shown in Section 3.1.2. Both current costs and new costs for recommended activities are escalated at 5% annually.

For 3.2.1, there are numerous activities conducted by a variety of public agencies and private companies. Activities conducted by the County are funded from tipping fees or are self-financing (from market revenues).

For 3.3, the number of customers and tonnages for waste collection systems have been projected using the same rate of increase as the countywide increases in population (1.1% annually, see Table 2-2), beginning with data for the year 2015. In other words, local differences in population growth, waste diversion

programs, annexations and other factors are ignored for the purpose of these projections.

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

4.1 **Funding Mechanisms (Summary by Facility)**

The following tables provide information on funding sources for programs and activities.

Table 4.1.1 Facility Inventory

Facility Name	Type of Facility	Tip Fee per Ton	Transfer Cost	Transfer Station Location	Final Disposal Location	Total Tons Disposed (2014)	Total Revenue Generated (Tip Fee x Tons)
Skagit County Transfer and Recycling Station (TRS)	Transfer Station	\$88.00/ 89.00	Short haul expense is included in general operating costs	Near intersection of Farm to Market Road and Ovenell Road	Roosevelt Landfill	99,189 (or 97,503 excluding Sauk and Clear Lake sites)	\$8,777,896
Sauk Transfer Station	Drop box	\$89.00	Short haul expense is included in general operating costs	Between Concrete and Rockport	Transferred to Skagit County TRS, then to Roosevelt Landfill	1,550	\$154,216 (includes other revenues such as payments for recyclables)
Clear Lake Site	Drop box	\$6.00 per 32-gallon can	Short haul expense is included in general operating costs	Near intersection of Hwy. 9 and South Skagit Hwy.	Transferred to Skagit County TRS, then to Roosevelt Landfill	136	\$41,025 (includes other revenues such as payments for recyclables)

Table 4.1.2 Tip Fee Components

Tip Fee by Facility		Sur-charge		City Tax		County Tax		Transportation Cost		Operational Cost		Administration Cost		Closure Costs	
Skagit County TRS		0		0		0		see op. cost		\$6,382,846		see below		see below	
Sauk Transfer Station		0		0		0		see op. cost		\$329,573		see below		see below	
Clear Lake Site		0		0		0		see op. cost		\$120,062		see below		see below	
All sites together		0		0		0		see op. cost				\$1,153,781		\$1,010,630	

Table 4.1.3 Funding Mechanism

Name of Program Funding Mechanism will defray costs	Bond Name	Total Bond Debt	Bond Rate	Bond Due Date	Grant Name	Grant Amount	Tip Fee	Taxes	Other	Surcharge
Skagit County RTS	Build America	\$8,765,000	2.53%	6/1/27	CPG	\$222,295	\$8,777,896		\$112,905	
Sauk Transfer Station							\$154,216			
Clear Lake Site							\$41,025			

Table 4.1.4 Tip Fee Forecast

Tip Fee per Ton by Facility	Year One		Year Two		Year Three		Year Four		Year Five	
Skagit County RTS	\$88.00/ 89.00		\$88.00/ 89.00		\$88.00/ 89.00		\$88.00/ 89.00		\$88.00/ 89.00	
Sauk Transfer Station	\$89.00		\$89.00		\$89.00		\$89.00		\$89.00	
Clear Lake Site	\$6.00 per 32- gallon can		\$6.00 per 32-gallon can		\$6.00 per 32-gallon can		\$6.00 per 32-gallon can		\$6.00 per 32- gallon can	

4.2 Funding Mechanisms

The following tables provide information on the anticipated source of funds (by percentage) for various activities for the next six years.

Table 4.2.1 Funding Mechanism by Percentage - Year One

Component	Tip Fee %	Grant %	Bond %	Collection Tax %	Rates and Charges %	Other %	Total
Waste Reduction	50	50					100%
Recycling	4				96		100%
Collection					100		100%
ER&I							NA
Transfer/Export	98		2				100%
Land Disposal	100						100%
Administration	100						100%
Litter Cleanup		100					100%
HHW Facility	25	68			7		100%

Table 4.2.2 Funding Mechanism by Percentage - Year Three

Component	Tip Fee %	Grant %	Bond %	Collection Tax %	Rates and Charges %	Other %	Total
Waste Reduction	50	50					100%
Recycling	4				96		100%
Collection					100		100%
ER&I							NA
Transfer/Export	98		2				100%
Land Disposal	100						100%
Administration	100						100%
Litter Cleanup		100					100%
HHW Facility	25	68			7		100%

Table 4.2.3 Funding Mechanism by Percentage - Year Six

Component	Tip Fee %	Grant %	Bond %	Collection Tax %	Rates and Charges %	Other %	Total
Waste Reduction	50	50					100%
Recycling	4				96		100%
Collection					100		100%
ER&I							NA
Transfer/Export	98		2				100%
Land Disposal	100						100%
Administration	100						100%
Litter Cleanup		100					100%
HHW Facility	25	68			7		100%

4.3 References and Assumptions

In Table 4.1.1, the tip fee is \$88.00 for municipal haulers and \$89.00 for private haulers and self-haul customers. These rates shown are current as of mid-2016. All other figures are for 2014.

Data in Table 4.1.2 is based on the 2014 budget (see Table 9.1 of Skagit County Solid Waste Management Plan). Expenses shown for operational costs include transfer station costs, disposal fees, compactor costs and the hazardous waste facility.

For Table 4.1.3, “other” funds include revenues from the sale of recyclables, MRW fees for SQG’s, and miscellaneous revenues (see Table 9-1).

For Table 4.1.4, information on future tipping fees is not available at this time. It is anticipated that the County will establish new tipping fees for the next five years through a rate review to be conducted in 2017.

For Tables 4.2.1 through 4.2.3, the programs included under waste reduction are primarily the activities conducted by Skagit County, including general public education expenses. For recycling, activities include curbside programs and publicly-supported programs. For land disposal expenses, there are no public facilities currently operating in the county but a small amount of expenses are still being incurred for closure and monitoring of old landfills. Expenses for future years are assumed to remain the same as in the current year.

4.4 Surplus Funds

Not applicable.

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APPENDIX D

SEPA CHECKLIST

INTRODUCTION

This appendix contains the environmental checklist required by the State Environmental Policy Act (SEPA). The purpose of the checklist is to provide information on the environmental impacts of the activities proposed by this Solid Waste Management Plan (SWMP). Much of this checklist addresses only the general concerns related to the County's solid waste system, but specific actions proposed by this SWMP are addressed as appropriate. One or more of the activities discussed in the SWMP may require separate SEPA processes when implementation plans are more fully developed.

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of proposed project, if applicable:

Skagit County Solid Waste Management Plan (SWMP).

2. Name of applicant:

Skagit County.

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

**Margo Gillaspy
Manager, Solid Waste Division
Skagit County Public Works Department
1800 Continental Place
Mount Vernon, WA 98273
Phone: 360-416-1400**

**Rick Hlavka
Consultant
Green Solutions
PO Box 680, South Prairie, WA 98385
Phone: 360-897-9533**

4. Date checklist prepared:

July 6, 2016.

5. Agency requesting checklist:

Skagit County Public Works Department.

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

This checklist is for a non-project proposal intended to update Skagit County's long-range plan for solid waste management and disposal. The proposed Solid Waste Management Plan is undergoing public review and comment. A final copy of the Solid Waste Management Plan is expected to be approved by Ecology in 2017.

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

Ecology's guidelines require solid waste management plans to be reviewed and, if necessary, updated periodically.

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

Does not apply.

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

No, this SEPA Checklist is intended to address only the programs and activities specifically recommended in the SWMP, and it is assumed that any new private or public facilities will need to undergo their own SEPA review as appropriate.

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

State Law (RCW 70.95.094) and guidelines issued by the Department of Ecology (Guidelines for Development of Local Comprehensive Solid Waste Management Plans and Plan Revisions) require the eight cities to adopt the plan (or they must develop their own plans), require a public review period for a minimum of 30 days, require that the plan and a Cost Assessment Questionnaire be reviewed and approved by the Washington Utilities and Transportation Commission, and require Ecology to examine and approve the preliminary draft and final plan. The Board of County Commissioners and all eight cities must also adopt the final draft of the plan. After adoption by the County and cities, Ecology must approve of the plan before it becomes effective.

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

Skagit County is required by State law to maintain a “coordinated, comprehensive solid waste management plan” in a “current and applicable condition.” The existing plan, developed in 2005 and amended in 2007, is out of date in several areas. In addition to updating the discussion of current facilities and programs, the proposed solid waste management plan contains a number of recommendations. Most of these recommendations represent refinements to existing policies and programs, based on the goal of decreasing reliance on landfills (by increasing waste reduction, recycling and composting) and reducing environmental impacts caused by existing activities. The recommendations proposed in the solid waste management plan can be found in the Executive Summary of the SWMP (see also Chapter 10 of the SWMP for more details).

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

The Solid Waste Management Plan addresses activities and programs that occur throughout Skagit County. A few facilities or activities outside of the county are also involved (such as the current use of a landfill in Klickitat County for Skagit County’s waste).

B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

The facilities and programs addressed by the SWMP's recommendations are the occupied areas in the County, which are generally flat or rolling.

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

Does not apply, there is no specific site being addressed by this plan.

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

- e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

2. Air

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

No significant amounts of emissions are anticipated as a result of the recommendations made by the SWMP.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

3. Water

- a. Surface Water:

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

Does not apply, there is no specific site being addressed by this plan.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Does not apply, there is no specific site being addressed by this plan.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

Does not apply, there is no specific site being addressed by this plan.

- b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

Does not apply, there is no specific site being addressed by this plan.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Does not apply, there is no specific site being addressed by this plan.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

4. Plants

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

- ____deciduous tree: alder, maple, aspen, other
____evergreen tree: fir, cedar, pine, other
____shrubs
____grass
____pasture
____crop or grain
____orchards, vineyards or other permanent crops.
____wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
____water plants: water lily, eelgrass, milfoil, other
____other types of vegetation

All of these types of vegetation can be found in Skagit County.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

5. Animals

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

birds: hawk, heron, eagle, songbirds, other:
mammals: deer, bear, elk, beaver, other:
fish: bass, salmon, trout, herring, shellfish, other _____

All of these types of animals can be found in Skagit County.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

6. Energy and natural resources

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

Several of the activities recommended in the SWMP will require small additional amounts of electrical power to support normal, everyday activities.

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

Does not apply, there is no specific site being addressed by this plan.

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Does not apply, there is no specific site being addressed by this plan.

7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

No, although the SWMP recommends expanded technical assistance to business generators of hazardous wastes and increased publicity for the household

hazardous waste collection facility, which should help prevent these types of problem in the future, see Sections 8.5 and 8.7 for more details.

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

Does not apply, there is no specific site being addressed by this plan.

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

Does not apply, there is no specific site being addressed by this plan.

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Does not apply, there is no specific site being addressed by this plan.

- 4) Describe special emergency services that might be required.

Does not apply, there is no specific site being addressed by this plan.

- 5) Proposed measures to reduce or control environmental health hazards, if any:

Does not apply, there is no specific site being addressed by this plan.

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Does not apply, there is no specific site being addressed by this plan.

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Does not apply, there is no specific site being addressed by this plan.

- 3) Proposed measures to reduce or control noise impacts, if any:

Does not apply, there is no specific site being addressed by this plan.

8. Land and shoreline use

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

Does not apply, there is no specific site being addressed by this plan.

- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not

been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

Does not apply, there is no specific site being addressed by this plan.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

Does not apply, there is no specific site being addressed by this plan.

c. Describe any structures on the site.

Does not apply, there is no specific site being addressed by this plan.

d. Will any structures be demolished? If so, what?

Does not apply, there is no specific site being addressed by this plan.

e. What is the current zoning classification of the site?

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

Does not apply, there is no specific site being addressed by this plan.

9. Housing

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

Does not apply.

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

Does not apply.

- c. Proposed measures to reduce or control housing impacts, if any:

Does not apply.

10. Aesthetics

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

Does not apply.

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

Does not apply.

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

Does not apply.

11. Light and glare

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

12. Recreation

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

13. Historic and cultural preservation

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

Does not apply, there is no specific site being addressed by this plan.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

14. Transportation

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

15. Public services

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

Does not apply.

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

Does not apply, there is no specific site being addressed by this plan.

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

Does not apply, there is no specific site being addressed by this plan.

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

Does not apply, there is no specific site being addressed by this plan.

C. SIGNATURE

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

Signature: _____

Name of Signee _____

Position and Agency/Organization _____

Date Submitted: _____

D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

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

By providing for secure disposal of solid wastes and increased recycling activities, the SWMP is expected to decrease impacts and discharges to water and air, and to provide for more secure handling of toxic or hazardous substances that may be part of the solid waste stream. No substantial increases or decreases in noise levels are expected as a result of the SWMP's recommendations.

Proposed measures to avoid or reduce such increases are:

Does not apply.

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

No significant impacts to plant, animal, fish, or marine life are expected.

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

Does not apply.

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

A small amount of energy and materials will be needed to implement the recommendations in the SWMP, but this is expected to be more than offset by the energy and resources conserved as the result of increased waste prevention, recycling and composting recommended by the plan.

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

Does not apply.

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

No substantial impacts, either positive or negative, to environmentally sensitive or other protected areas are expected to result from the recommendations in the SWMP.

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

Does not apply.

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

No substantial impacts, either positive or negative, to land and shoreline use are expected to result from the recommendations in the SWMP.

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

Does not apply.

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

Minor changes are proposed for public services and to several aspects of the waste collection system.

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

None.

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

The SWMP was prepared in response to a State requirement for the proper management of solid waste, and it is intended to comply with all applicable local, state and federal laws and requirements regarding protection of the environment.



Planning & Development Services

1800 Continental Place ▪ Mount Vernon, Washington 98273
office 360-416-1320 ▪ pds@co.skagit.wa.us ▪ www.skagitcounty.net/planning

Memorandum

SEPA Threshold Determination of Non-Significance (DNS): Skagit County Solid Waste Management Plan

To: Margo Gillaspy, LHg / Solid Waste Division Manager (Skagit County Public Works)
From: Stacie Pratschner, AICP / Senior Planner and Team Supervisor (Skagit County PDS)
Re: Public and agency comment concerning the SEPA DNS for updates to the Skagit County Solid Waste Management Plan
Date: May 17, 2016

Skagit County Planning & Development Service issued a SEPA Threshold Determination of Non-Significance (DNS) on August 25, 2016 for the non-project proposal from the Skagit County Public Works Department to update the long-range plan for solid waste management and disposal in Skagit County.¹ The DNS was published in the Skagit Valley Herald with the two week comment period concluding on September 8, 2016. No public or SEPA agency comments were received during the comment period, and the threshold determination was not appealed.

I hope this information meets your needs. Please don't hesitate to contact me at Staciep@co.skagit.wa.us or Extension 1336 if I can provide additional information.

Thank you,

Stacie Pratschner, AICP
Senior Planner / Team Supervisor

¹ <http://sp2010/Planning/Legislative/Projects/Solid%20Waste%20Mgt%20Plan%20-%20PW/SWMP%20Threshold%20Determination.docx>

APPENDIX E

RESOLUTIONS OF ADOPTION

NOTICE:

After the Final Draft of this SWMP has been adopted by the participating jurisdictions (Skagit County and the eight cities and towns), this appendix will document the adoption process by showing the adoption resolutions from the municipalities.

RESOLUTION NO. 2010

REGARDING ADOPTION OF THE 2017 SKAGIT COUNTY COMPREHENSIVE SOLID
WASTE MANAGEMENT PLAN

WHEREAS, the Solid Waste Management Act (Chapter 70.95 RCW) requires each city and county to prepare a comprehensive solid waste management plan (CSWMP); and

WHEREAS, in April of 2008 the cities and towns in Skagit County joined in signing an interlocal agreement with Skagit County that formed the Solid Waste Governance Board, resulting in the development of a joint city-county plan; and

WHEREAS, the Skagit County Solid Waste Advisory Committee (SWAC), an ongoing committee of balanced interests appointed by the Board of Skagit County Commissioners, is responsible for assisting in the development of the plan; and

WHEREAS, the Skagit County Public Works Department has developed an updated joint city-county CSWMP with active involvement from, and under the guidance of the Solid Waste Advisory Committee (SWAC) and the Solid Waste System Governance Board; and

WHEREAS, the City of Anacortes has had ample opportunity to participate in the development of the CSWMP through the process guided by the Solid Waste System Governance Board; and

WHEREAS, the CSWMP sets forth recommendations for an efficient and integrated solid waste management system; and

WHEREAS, the proposed 2017 CSWMP has been presented to and approved by the Skagit County Solid Waste Advisory Committee (on May 3, 2017), the Skagit County Solid Waste System Governance Board (on August 17, 2017), and Washington State Department of Ecology (on March 28, 2017); and

WHEREAS, the City of Anacortes finds this CSWMP acceptable as the Solid Waste Management Plan for the City of Anacortes;

NOW THEREFOR BE IT RESOLVED AND IT IS HEREBY ORDERED by the City Council of Anacortes Washington that the 2017 Skagit County Comprehensive Solid Waste Management Plan be approved and adopted as the Solid Waste Management Plan for the City of Anacortes.

PASSED AND APPROVED this 16th day of April, 2018.

CITY OF ANACORTES

By:

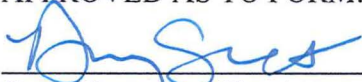

Laurie Gere, Mayor

ATTEST:



Steve Hoglund, City Clerk Treasurer

APPROVED AS TO FORM:



Darcy Swetnam, City Attorney

RESOLUTION NO. _

RESOLUTION ADOPTING THE 2017 COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

WHEREAS, Skagit County desires to proceed with updating the 2008 Skagit County Comprehensive Solid Waste Management Plan (CSWMP); and

WHEREAS, the proposed 2017 CSWMP has been presented to and approved by the Skagit County Solid Waste Advisory Committee (on May 3, 2017), the Skagit County Solid Waste System Governance Board (on August 17, 2017), and Washington State Department of Ecology (on March 28, 2017); and

WHEREAS, the Skagit County Board of Commissioners held a Public Hearing to receive comments on the proposed 2017 CSWMP on November 28, 2017, and

WHEREAS, the Skagit County Board of Commissioners wishes to adopt the 2017 CSWMP as presented.

NOW, THEREFORE, BE IT RESOLVED AND IT IS HEREBY ORDERED, by the Skagit County Board of Commissioners that the 2017 Skagit County CSWMP, as attached hereto and incorporated by reference, is hereby approved and adopted as Skagit County's CSWMP for solid waste management.

PASSED this 11 day of December, 2017.

**BOARD OF COUNTY COMMISSIONERS
SKAGIT COUNTY, WASHINGTON**



Ron Wesen

Ron Wesen, Chair

Kenneth A. Dahlstedt

Kenneth A. Dahlstedt, Commissioner

Lisa Janicki

Lisa Janicki, Commissioner

Attest:

Amber Enps
Clerk of the Board

Approved as to form:

11/1/17
Civil Deputy Prosecuting Attorney

Approved as to Content:

[Signature]
Department Head

RESOLUTION NO. 04 - 2018**A RESOLUTION OF THE CITY OF BURLINGTON APPROVING THE 2017 SKAGIT COUNTY
COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN**

WHEREAS, on December 11, 2017, Skagit County Board of Commissioners adopted the 2017 Skagit County Comprehensive Solid Waste Management Plan; and

WHEREAS, on March 13, 2018 the Department of Ecology has granted conditional approval of the final draft of the Skagit County Solid Waste Management Plan (CSWMP); and

WHEREAS, for final adoption, the SCWMP must be approved by all municipalities in Skagit County; and

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Burlington as follows:

1. Council approves the Skagit County 2017 Comprehensive Solid Waste Management Plan.

INTRODUCED AND PASSED at a regular meeting of the City Council of the City of Burlington on this 10th day of May, 2018.

CITY OF BURLINGTON


Steve Sexton, Mayor

ATTEST:


Renee Sinclair, Director of Budget & Accounting

APPROVED AS TO FORM:


Leif Johnson, City Attorney

**RESOLUTION APPROVING THE ADOPTION OF THE 2017 SKAGIT COUNTY
COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN**

WHEREAS, Washington State enacted RCW 70.95.080 (requiring counties to develop solid waste plans) in 1969, and Skagit County adopted their first plan in 1973. Subsequent plans were adopted in 1981, 1987, 1994, and 2005, with an amendment to the 2005 plan adopted in 2008; and

WHEREAS, State allows cities and towns to fulfill their solid waste management planning responsibilities in one of three ways

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

The towns and cities have agreed to participate through an Interlocal agreement with the County; and

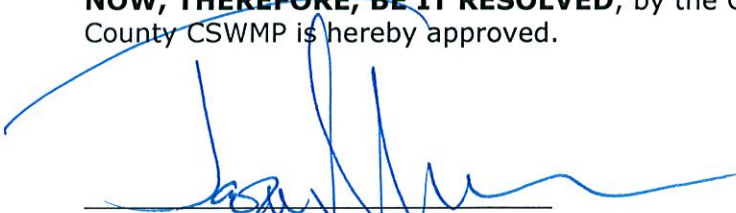
WHEREAS, Skagit County desires to proceed with updating the 2008 Skagit County Comprehensive Solid Waste Management Plan (CSWMP); and

WHEREAS, the proposed 2017 CSWMP has been presented to and approved by the Skagit County Solid Waste Advisory Committee (on May 3, 2017), the Skagit County Solid Waste System Governance Board (on August 17, 2017), and Washington State Department of Ecology (on March 28, 2017) and;

WHEREAS, the Skagit County Board of Commissioners held a Public Hearing to received comments on the proposed 2017 CSWMP on November 28, 2017; and

WHEREAS, the Skagit County Board of Commissioners approved and adopted the CSWMP on December 11, 2017

NOW, THEREFORE, BE IT RESOLVED, by the Concrete Town Council the 2017 Skagit County CSWMP is hereby approved.



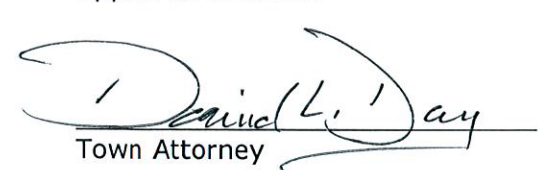
Mayor, Jason Miller

Attest:



Clerk- Treasurer, Andrea Fichter

Approved to Form:



Town Attorney

Resolution #2018-02

**RESOLUTION APPROVING THE ADOPTION OF THE 2017 SKAGIT COUNTY
COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN**

WHEREAS, Washington State enacted RCW 70.95.080 (requiring counties to develop solid waste plans) in 1969, and Skagit County adopted their first plan in 1973. Subsequent plans were adopted in 1981, 1987, 1994, and 2005, with an amendment to the 2005 plan adopted in 2008; and

WHEREAS, State allows cities and towns to fulfill their solid waste management planning responsibilities in one of three ways

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

The towns and cities have agreed to participate through an Interlocal agreement with the County; and

WHEREAS, Skagit County desires to proceed with updating the 2008 Skagit County Comprehensive Solid Waste Management Plan (CSWMP); and

WHEREAS, the proposed 2017 CSWMP has been presented to and approved by the Skagit County Solid Waste Advisory Committee (on May 3, 2017), the Skagit County Solid Waste System Governance Board (on August 17, 2017), and Washington State Department of Ecology (on March 28, 2017) and;

WHEREAS, the Skagit County Board of Commissioners held a Public Hearing to received comments on the proposed 2017 CSWMP on November 28, 2017; and

WHEREAS, the Skagit County Board of Commissioners approved and adopted the CSWMP on December 11, 2017

NOW, THEREFORE, BE IT RESOLVED, by the Hamilton Town Council the 2017 Skagit County CSWMP is hereby approved.



Mayor, Joan Cromley

Attest:



Clerk- Treasurer, Denise DuVarney

Town of La Conner



Resolution No. 551

A RESOLUTION ADOPTING THE SKAGIT COUNTY SOLID WASTE MANAGEMENT PLAN.

WHEREAS, Section 70.95.080 RCW directs each county within the State, in cooperation with the various cities located within the county, to prepare a coordinated, comprehensive solid waste management plan ("SWMP"); and

WHEREAS, the minimum contents of a SWMP are described in RCW 70.95.090, and further described in the Guidelines for Development of Local Comprehensive Solid Waste Management Plans and Plan Revisions issued by the Washington Department of Ecology; and

WHEREAS, Skagit County prepared a solid waste management plan in conjunction with the cities and towns in the County, which plan was adopted and then updated in 2008; and

WHEREAS, RCW 70.95.110 provides that a SWMP must "be maintained in a current and applicable condition" through periodic review and revisions; and

WHEREAS; the Skagit County SWMP has been updated and revised by the County and the various cities and towns of Skagit County, and has been approved by the Skagit County Solid Waste Advisory Committee, the Skagit County Solid Waste System Governance Board, and the State Department of Ecology; and

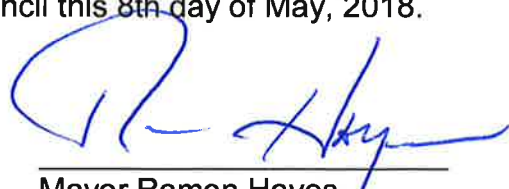
WHEREAS, the Skagit County Board of Commissioners held a public hearing on the proposed plan on November 28, 2017, and adopted the proposed plan on December 11, 2017; and

WHEREAS, The Skagit County SWMP is intended to provide guidance for the solid waste system in Skagit County. The solid waste system includes garbage collection and disposal, and programs for waste reduction, recycling, organics, special wastes and the administration of those programs. The SWMP provides guidance on program development and implementation for these activities for the next five to six years, while also anticipating the needs of the solid waste system up to 20 years from now.

NOW THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF LA CONNER:

That the Skagit County Solid Waste Management Plan is hereby adopted.

Adopted by vote of the La Conner Town Council this 8th day of May, 2018.



Mayor Ramon Hayes

Attest:



Maria De Goede, Finance Director

Approved as to form:



Scott Thomas, Town Attorney

RESOLUTION #2018-06

**A RESOLUTION APPROVING THE ADOPTION OF THE 2017 SKAGIT COUNTY
COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN**

WHEREAS, Washington State enacted RCW 70.95.080 (requiring counties to develop solid waste plans) in 1969, and Skagit County adopted their first plan in 1973. Subsequent plans were adopted in 1981, 1987, 1994, and 2005, with an amendment to the 2005 plan adopted in 2008; and

WHEREAS, State allows cities and towns to fulfill their solid waste management planning responsibilities in one of three ways

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

The towns and cities have agreed to participate through an Interlocal agreement with the County; and

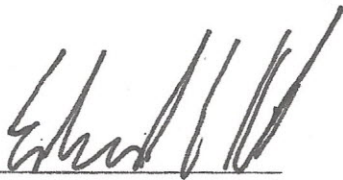
WHEREAS, Skagit County desires to proceed with updating the 2008 Skagit County Comprehensive Solid Waste Management Plan {CSWMP}; and

WHEREAS, the proposed 2017 CSWMP has been presented to and approved by the Skagit County Solid Waste Advisory Committee (on May 3, 2017), the Skagit County Solid Waste System Governance Board (on August 17, 2017), and Washington State Department of Ecology (on March 28, 2017) and;

WHEREAS, the Skagit County Board of Commissioners held a Public Hearing to received comments on the proposed 2017 CSWMP on November 28, 2017; and

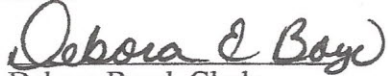
WHEREAS, the Skagit County Board of Commissioners approved and adopted the CSWMP on December 11, 2017

NOW, THEREFORE, BE IT RESOLVED, by the Lyman Town Council the 2017 Skagit County CSWMP is hereby approved.



Edward E Hills, Mayor

Attest:



Debora Boyd, Clerk

RESOLUTION NO. 955

**A RESOLUTION OF THE CITY OF MOUNT VERNON, WASHINGTON, FOR THE ADOPTION OF THE
2017 SKAGIT COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE.**

WHEREAS, the Solid Waste Management Act (Chapter 70.95 RCW) requires each city and county to prepare a comprehensive solid waste management plan; and

WHEREAS, the State allows cities to fulfill their solid waste management planning responsibilities in one of three ways:

- Preparing their own plan for integration into the County's plan,
- Participating with the County in preparing a joint plan, or
- Authorizing the County to prepare a plan that includes the City.

The City has agreed to participate through an interlocal agreement with the County; and

WHEREAS, the proposed 2017 CSWMP has been presented to and approved by the Skagit County Solid Waste Advisory Committee (on May 3, 2017), the Skagit County Solid Waste System Governance Board (on August 17, 2017), and Washington State Department of Ecology (on March 28, 2017); and

WHEREAS, the Skagit County Board of Commissioners held a Public Hearing and received comments on the proposed 2017 CSWMP on November 28, 2017; and

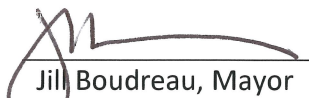
WHEREAS, the Mount Vernon City Council finds this CSWMP acceptable as the Solid Waste Management Plan for the City of Mount Vernon; and

WHEREAS, the Skagit County Board of Commissioners approved and adopted the CSWMP on December 11, 2017;

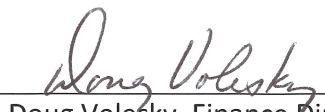
NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Mount Vernon, Washington, that the Skagit County Solid Waste Management Plan Update be approved and adopted as the Solid Waste Management Plan for the City of Mount Vernon.

Dated this 13 day of June, 2018.

By:


Jill Boudreau, Mayor
City of Mount Vernon

Attest:


Doug Volesky, Finance Director

Approved as to form:


Kevin Rogerson, City Attorney

RESOLUTION NO. 987-18

**A RESOLUTION OF THE CITY OF SEDRO-WOOLLEY, WASHINGTON,
APPROVING THE 2017 COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN**

WHEREAS, on December 11, 2017, Skagit County Board of Commissioners adopted the 2017 Skagit County Comprehensive Solid Waste Management Plan; and

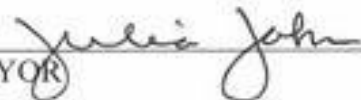
WHEREAS, on March 13, 2018 the Department of Ecology has granted conditional approval of the final draft of the Skagit County Solid Waste Management Plan (CSWMP); and

WHEREAS, for final adoption, the SCWMP must be approved by all municipalities in Skagit County; and

**THE CITY COUNCIL OF THE CITY OF SEDRO-WOOLLEY DOES HEREBY
RESOLVE AS FOLLOWS:**

Section 1: Council approves the Skagit County 2017 Comprehensive Solid Waste Management Plan.

PASSED BY THE CITY COUNCIL AND APPROVED BY THE MAYOR ON THIS
11th day of April, 2018.


MAYOR

ATTEST:


FINANCE DIRECTOR

APPROVED AS TO FORM:


CITY ATTORNEY

RECYCLING CONTAMINATION REDUCTION AND OUTREACH PLAN (CROP)

The goal of the CROP is to reduce contamination of the materials collected in **Skagit County**'s single-family, multi-family, drop box, and commercial recycling programs. This, in turn, helps **Skagit County** more fully realize the economic, environmental, social, and public health benefits of these programs. The CROP does not specifically include strategies to reduce contamination of other material streams such as organics or construction and demolition debris. However, many of the same strategies apply to these streams and may be included in future CROP updates.

The CROP intends to meet the requirement in [RCW 70A.205.045\(10\)](#) that counties with a population of more than 25,000, and cities within these counties with independent Solid Waste Management Plans (SWMP), include a CROP in their SWMP by July 1, 2021.

This CROP includes ten action steps and is a framework for developing a more detailed and customized implementation plan in the future. In addition, it also identifies the need to align the CROP with the SWMP, and secure and allocate funding for ongoing planning and implementation.

Step 1: Inventory current recycling collection services and programs

Skagit County will inventory single-family, multi-family, drop box, and commercial collection programs to identify what is accepted for recycling, where and how it is collected and by whom, and how it should be prepared for recycling.

This inventory may include, but is not limited to the following:

- Designated recyclables list in the SWMP
- Collection methods (single- or multi-stream, carts or stackable bins, etc.)
- Number of tons collected for recycling and customers for each type of program
- Types of materials accepted for recycling in each type of program
- Cart or container colors
- Minimum service-level or other ordinances, resolutions, or interlocal agreements
- Collection or material processing contracts
- Local government and recycling collector websites and social media sites
- Stickers and signs on containers, in businesses, etc.
- Brochures, newsletters, information shared at community events, etc.
- Recent media coverage

Skagit County will identify differences or inconsistencies across contracts and agreements for recycling programs, and in the information provided to residents and businesses about what to recycle and how it should be prepared for collection. **Skagit County** will use this data to identify opportunities for more consistent and aligned programs. The data will also be used to help determine what specific contamination reduction strategies to implement.

Step 2: Develop scope of work with stakeholders

Skagit County will work with key stakeholders to develop a scope of work for the CROP addressing the specific challenges and opportunities associated with local recycling contamination. To begin this scoping process, the information learned in Step 1 will be shared with the Solid Waste Advisory Committee (SWAC).

These stakeholders may include, but are not limited to:

- SWAC members
- Elected officials and key staff from other local governments, including potential regional partners in the same MRF-shed
- Garbage and recycling collection companies and their front-line staff
- Organizations representing homeowners, tenants, and multi-family and business interests
- Material recovery facilities (MRF) and transfer station operators
- End markets for recovered materials
- **Skagit County's** Ecology Regional Planner and grant manager
- Non-governmental organizations and community groups
- Regional, statewide, and national organizations that can provide technical assistance and/or financial support.

Step 3: Prioritize the recycling program(s) to focus on first

Together with key stakeholders, **Skagit County** will identify what recycling collection program(s) to focus on first. Driving this decision could be current knowledge of contamination levels and their estimated impact on costs and material quality, the number of customers, total quantity of material collected, etc.

Step 4: Establish acceptable materials lists

Starting with the highest-priority program(s), **Skagit County** will establish lists of acceptable materials. This effort will be coordinated with the SWAC, MRF operators, collectors, end markets, and other key stakeholders. Criteria for determining the acceptable materials lists may include, but are not limited to:

- Alignment with the SWMP mission and goals, and community values
- Degree of uniformity across local programs, regionally, and statewide
- Diversion potential
- Cost to collect and process relative to other management options
- Strength and long-term viability and stability of end markets
- Environmental, social, and other benefits and costs
- Potential to cross-contaminate or lower the value of other materials
- Potential to cause customer confusion

The Washington State Association of Counties Solid Waste Managers Affiliate, the Washington State Refuse and Recycling Association, and the Department of Ecology have supported the establishment of regional, and if possible, statewide uniformity in what materials are accepted for recycling and how they should be prepared. More harmonization across programs reduces customer confusion and contamination. To that end, they identified these four priority materials for statewide recovery:

1. Paper (including office and notebook paper, newspaper, mail, catalogues, magazines, and cereal or cracker boxes)
2. Cardboard
3. Plastic bottles and jugs (clear, colored, and natural)
4. Steel and aluminum cans

The resources and guidelines developed by these organizations to establish their list of priority materials will help guide the development of **Skagit County**'s acceptable materials list. [Ecology's Resource Library](#) contains this information and, along with [Ecology's Best Management practices \(BMPs\) and Resources document](#), includes other resources to assist in developing an accepted materials list. This includes information on the specific challenges and opportunities associated with collecting glass and aseptic and polycoat containers, which some recycling programs in Washington accept.

Step 5: Define what data to collect to determine baseline levels of recycling contamination

Starting with the highest priority program(s), and based on the review completed in Step 1, **Skagit County** will identify what the acceptable materials are and what is considered contamination for the purposes of establishing a baseline recycling contamination rate. This data will also inform decisions about what, if any, changes to make to the accepted materials list in the future.

Step 6: Gather baseline recycling contamination data

Starting with the highest-priority program(s), **Skagit County** will establish baseline levels and types of recycling contamination. Recycling contamination rates can vary significantly across different programs and communities. Nationally, The Recycling Partnership (TRP) estimated an average contamination rate of about 17% across 197 programs that participated in their 2019 State of Curbside Survey. In Washington State, TRP's 2019 survey of seven MRFs found inbound levels of contamination from commingled recycling collection programs ranging from 5%-20% by weight. Recent drop-off programs and cart lid-lift audits in Washington showed rates as high as 40%. For this reason, it is important to gather data on local recycling contamination levels.

In discussions with stakeholders, and building on the information in the State CROP and [Ecology's Resource Library](#), and on the work completed in Step 5 **Skagit County** will identify and develop ways to track specific contaminants. For example, tracking the number of carts containing plastic bags may be a more useful metric than an estimated overall percentage of contamination by volume.

Data collection methods may include, but are not limited to:

- Recycling stream composition studies
- Survey of transfer stations and MRF operators
- Tracking contamination using on-board truck or container-mounted cameras
- Drop box composition studies or visual audits
- Container lid-lift audits for residential, multi-family and commercial accounts
 - *Legal questions have been raised about lid-lift audits. The Measurement and Reporting section of [Ecology's BMPs](#) provides more details.*

Step 7: Identify key contaminants and their costs and impacts

Based on the data collected in Step 6 and collaborating with key stakeholders, **Skagit County** will identify the most problematic and costly contaminants starting with the highest-priority program(s). Although the types and impacts of contamination don't vary as much as the levels of contamination across different communities and programs, it is still important to gather locally specific data. This data is critical to designing outreach campaigns and other strategies targeting the most problematic materials. It can also be helpful in calculating the economic and other benefits of removing problematic materials from the recycling stream.

In recent surveys, such as the one conducted by the TRP in 2019, MRFs and cities in Washington identified the following recycling contaminants as the most problematic and costly to manage:

- Plastic bags and film
- Tanglers including rope, cords, chains, and hoses
- Food and liquids
- Shredded paper
- Bagged garbage
- Non-program plastics including clamshells and polystyrene foam
- Hypodermic needles

These contaminants can:

- Slow down the sorting and processing of materials.
- Reduce the quality and value of secondary material feedstocks.
- Result in costly shutdowns.
- Damage collection, processing, and remanufacturing equipment.
- Cause serious injuries to collection and processing facility staff.

According to TRP, the greatest costs associated with managing a contaminated recycling stream at MRFs nationally come from the following and represent 80% of total contamination-related costs:

- 40% for disposal of residuals
- 26% in value lost from contaminated recyclables
- 14% in labor to remove contamination from sorting equipment, etc.

Step 8: Develop and implement education and outreach strategies to reduce contamination

Skagit County will develop and implement education and outreach strategies based on best practices. This starts with addressing any inconsistencies in recycling information and messaging identified in Step 1. All new outreach materials and messages will be aligned and consistent across all platforms.

Depending on the type of recycling program, outreach and education strategies may include, but are not limited to:

- Moving toward uniformity in cart and container colors (or at least lids)

- blue for recycling, gray or black for garbage, and green for organics
- Visual, easy-to-understand signage using photos and universal pictures and symbols
- Cart-tagging and cart rejection
- On-route monitoring tools, including apps and cameras
- Pairing right-sized recycling and trash bins
- On-site assistance and outreach at drop-off sites
- Up-to-date, and easy-to-find and access websites with clear, consistent messaging
- Social media posts, campaigns, mailings, brochures, and other communications
- Online apps for residents and businesses to get answers to their recycling questions
- Community presentations, tabling, and activities at community events
- School presentations and activities focused on recycling right
- Translation and transcreation of educational materials and campaigns to ensure recycling information is clearly understood by all audiences
- Social marketing campaigns to effectively promote long-term behavior change

Where possible, free and customizable resources will be utilized, including [Ecology's Recycle Right](#) campaign materials and [The Recycling Partnership's Anti-Contamination Kit](#). [Ecology's Contamination Reduction Best Management Practices & Resources document](#) and [Resource Library](#) have examples of successful anti-contamination programs.

Step 9: Evaluate the effectiveness of anti-contamination strategies and set next steps

Skagit County will conduct periodic assessments on the effectiveness of recycling contamination reduction programs and strategies, and share the results with key stakeholders and the public. These assessments will use, at least in part, the same methodology used in Step 6 to establish baseline contamination levels.

The assessment results inform what is working and what adjustments to make for better results. This includes reducing contamination in other recycling programs that were not a focus during the initial CROP implementation.

Step 10: Explore contamination reduction strategies beyond education and outreach

As part of a statewide effort, **Skagit County** will work with Ecology and other partners to explore strategies and solutions beyond education and outreach. These could address regional planning, operations and collection, contracting, incentives, pricing, policies, mandates, enhanced data collection, etc. Based on this evaluation, **Skagit County** will identify and pursue the most promising initiatives.

These options may include, but are not limited to:

- Regional planning and aligned or joint contracting for services to harmonize messaging, lower program costs, and improve program performance.
- Evaluating the costs and benefits of operational changes, including collection frequency, level of source-separation at the curb, and innovative drop-off container designs on contamination levels and overall program performance.
- Product bans or restrictions.

- Strengthening contracts with haulers and MRFs to include provisions focused on reducing contamination, collecting and reporting data on program performance and ensuring materials on the accepted materials list are responsibly recycled. Consult [The Recycling Partnership's BMPs for MRF contracting](#) and their [supporting materials](#) for guidance.

Ensure alignment of the CROP and SWMP and secure and allocate funding to implement the

CROP: This work will occur throughout the process as needed. Updates to the CROP can occur during SWMP revisions, including the required five-year revision process.

This work includes involving key stakeholders in reviewing, and if necessary, updating related elements in the SWMP to ensure they are aligned and consistent with the contents of the CROP and implementation work.

This information may include, but is not limited to:

- Designated recyclables list
- Recycling facilities including transfer stations, drop-off sites, and MRFs
- Recycling collection services and providers, and collection systems and fees
- Waste reduction and recycling education and outreach strategies
- Funding sources and mechanisms for recycling programs and services

During this process, **Skagit County** will also work with Ecology and other key stakeholders to identify and secure new and/or allocate existing funding, and forge partnerships with agencies and organizations to provide technical and financial assistance.

The State CROP and [Ecology's Resource Library](#) are tools to get started on implementing the CROP. The library includes contamination reduction best management practices, contracting guides, MRF-shed maps, materials from successful programs in Washington State and across the country, and more.

An initial 3-year implementation schedule for all ten steps in the CROP is included below. As **Skagit County** clarifies and defines the scope of work, and identifies the resources to complete the work, a more detailed and refined implementation plan, schedule and budget will be developed.

CROP Implementation Schedule

Year 1 2021

- Step 1: Inventory current recycling collection services and programs
- Step 2: Develop scope of work with stakeholders
- Step 3: Prioritize the recycling program(s) to focus on first
- Step 4: Establish acceptable materials list

Year 2 2022

- Step 5: Define what data to collect to determine baseline levels of recycling contamination
- Step 6: Gather baseline recycling contamination data
- Step 7: Identify key contaminants and their costs and impacts

Year 3 2023

Step 8: Develop and implement education and outreach strategies to reduce contamination

Step 9: Evaluate the effectiveness of anti-contamination strategies and set next steps

Step 10: Explore contamination reduction strategies beyond education and outreach

Ensure alignment of the CROP and SWMP and identify and secure or allocate funding to implement the CROP – These are steps that will be addressed throughout the process as needed.