Skagit County Comprehensive Solid Waste Management Plan

December 2005

SKAGIT COUNTY
COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

December 2005

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, EnviroMech

and Clinton S. Stanovsky

ACKNOWLEDGMENTS

This Skagit County Comprehensive Solid Waste Management Plan (CSWMP) incorporates the modifications put into practice since the previous solid waste plan was published in 1994, while looking forward to the future needs of Skagit County. The Skagit County Department of Public Works recognizes the following organizations, and those individuals who participated, for their assistance in the development of this CSWMP:

- Skagit County's Solid Waste Advisory Committee members, past and present, and the agencies and businesses they represented.
- The cities, Tribes and other local organizations in Skagit County.
- Washington Department of Ecology staff.
- Skagit County's Planning, Health Department and other staff.
- Skagit County's Public Works Department, Solid Waste Division staff.

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.

CONTENTS

CHAPTERS Page

Table of Contents, Continued

Table of Contents, Continued

APPENDICES

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

INTRODUCTION

This Comprehensive Solid Waste Management Plan (CSWMP) was prepared to provide a guide for solid waste activities in Skagit County. This document was developed 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).

This CSWMP addresses solid waste management throughout Skagit County. The cities had the option to develop their own plan but chose to participate in the County's planning process. The various Tribes in Skagit County also have the option to develop their own plans.

The contents of this CSWMP are specified by State law (RCW 70.95.090) and further described in Guidelines for the Development of Local Solid Waste Management Plans and Plan Revisions issued by the Washington Department of Ecology (Ecology 1999). The Solid Waste Management Act specifies that this CSWMP must "be maintained in a current and applicable condition" through periodic review and revisions (RCW 70.95.110).

This CSWMP was prepared through a team effort involving the Skagit County Department of Public Works and the Solid Waste Advisory Committee (SWAC). The SWAC 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.

GOALS AND OBJECTIVES

The goals and objectives for this Comprehensive Solid Waste Management Plan are to:

- consider a range of public and private options for solid waste management that creates a long-term sustainable system.
- lead to the lowest costs and best possible service levels.
- establish level-of-service standards for urban and rural areas.
- meet governmental financial, environmental and public health obligations.
- reflect a common commitment to environmental protection and preservation of quality of life.
- provide a basis for equitable allocation of costs among those receiving 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.
- review current solid waste regulations and policies, giving particular attention to waste stream reduction, recycling and future disposal needs.
- incorporate flexibility to anticipate future needs.

PLAN ORGANIZATION

Chapter 1 of this document describes the purpose and goals of this CSWMP, its relationship to other plans, the recommendations from the previous solid waste plan, and the process and schedule for updating the CSWMP. Chapter 2 provides information about demographics, waste quantities, and other basic information. Chapters 3 through 9 discuss the various elements of the solid waste management system in Skagit County, and provide the information and analysis on which the recommendations are based.

BACKGROUND

The current (2003) amount of solid waste generated in Skagit County is approximately 93,400 tons per year. Of this amount, an estimated 27% is diverted through recycling and composting, with an additional 23% diverted to energy recovery and other beneficial uses, while the remaining 50% is shipped to an out-of-county landfill through the County's waste export system (see also Table 2.5).

The amount of waste generated in the County is expected to increase to 277,100 tons per year in 2020. At the current recycling and composting rate, 88,700 tons per year of that future amount will be diverted by recycling and composting, 60,300 tons per year will go to beneficial uses, and 128,100 tons per year will be disposed in a landfill.

RECOMMENDATIONS

The specific recommendations proposed by this CSWMP are shown below and are numbered for review purposes, using a sequential number and an abbreviation for the topic (for example, Recommendation #WR2 is the second recommendation for Waste Reduction). Additional details about the recommendations can be found in the appropriate chapter of the plan.

Chapter 2: Background

Chapter 2 of the CSWMP provides general background information for the solid waste system and for the county as a whole. The presentation of one aspect of the solid waste system (waste composition data) led to the following recommendation:

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.

Chapter 3: Waste Reduction and Public Education

Chapter 3 discusses two related topics: waste reduction and public education.

Waste Reduction: There are several good programs in Skagit County for waste reduction. This CSWMP begins by recommending continuation of the existing programs, and then recommends refinements or expansions in two areas:

WR1) Existing activities should be continued.

WR2) A measurement method is needed to determine the level of waste reduction, and the County should monitor progress on the development of such measurement methods on the State and Federal levels.

WR3) The County should promote the establishment of a local reusable building materials store.

Public Education: Discussion of public education programs concluded that these are a high priority activity, leading to the following recommendations:

PE1) Public education is an essential element of the solid waste management system, and the current level of effort must be maintained. The County should remain the lead agency for this activity, with assistance by the cities and private sector as appropriate.

PE2) The County, contingent on the hiring of a new Recycling Coordinator (see Recommendation #R3) and with assistance from the cities and private sector as appropriate, should investigate the potential for a local program patterned after the "EnviroStar" program used in other areas, to promote business involvement in waste diversion activities.

PE3) Public education activities discouraging illegal dumping need to be continued.

Chapter 4: Recycling

Chapter 4 of the CSWMP discusses existing programs and provides recommendations for two approaches to recycling: source-separation programs and mixed waste processing.

Source-Separation Programs: Programs that rely on the separate collection of recyclable materials are the typical approach used in Skagit County and other areas. These programs are already used extensively throughout the County, so that only a few refinements are needed at this time:

R1) Skagit County's waste diversion goal (including waste reduction, recycling and composting) should be to show continued improvement each year in programs and

the recycling rate, with an eventual goal of 50% waste diversion (waste reduction, recycling and composting). To reach this goal, the service gaps shown in Section 4.2.5 will need to be addressed.

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 (see Table 6.2).

R3) In order to avoid diverting existing staff from their current responsibilities, the County should hire a Recycling Coordinator, on at least a part-time basis, to assist with the implementation of the recycling and other waste diversion recommendations.

Mixed Waste Processing Systems: Approaches that separate recyclable materials from mixed garbage are not currently in use in the County, so the following is the only recommendation that seemed necessary at this time:

R4) Any proposals for mixed waste processing should be considered cautiously due to the history of problems and failures that have occurred with this technology. Such proposals would be subject to normal permitting requirements and compatibility with the System Policy shown in Section 7.2.3.

Chapter 5: Composting

Several types of composting are examined in Chapter 5, including composting of yard debris, food waste, and mixed solid waste.

Yard Debris Composting: Overall, current programs for yard debris composting are performing well but a more convenient collection option needs to be extended to additional participants (see also Recommendation #WC3):

C1) Curbside yard debris collection should be offered in all UGAs and in the rural areas west of Highway 9.

Food Waste Composting: Discussions about food waste led to two recommendations that essentially support the status quo:

C2) The County Recycling and Waste Reduction Educator should continue offering educational materials about home composting of food waste.

C3) Any proposals for food waste composting should be considered, subject to normal permitting requirements and compatibility with the System Policy shown in Section 7.2.3.

Solid Waste Composting: Discussions about solid waste composting concluded with the following recommendation:

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. Such proposals would be subject to normal permitting requirements and compatibility with the System Policy shown in Section 7.2.3.

Chapter 6: Waste Collection

Chapter 6 of the CSWMP examines the current system for collecting solid waste in Skagit County. In general, the existing solid waste collection system is functioning well, but three recommendations were made for refinements to the current system:

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.

WC2) Incentive rates for residential customers, where the cost of recycling is attached to the base rate for garbage collection and the customers who recycle pay a lower monthly fee, should be added in the Recycling Service Area. Additional incentives and alternative rate structures that promote waste reduction and recycling should also be considered.

WC3) A summary of the preferred service levels for garbage collection, recycling, and yard debris is shown in Table 6.2. These services are adopted as the minimum requirements for these services in the Skagit County.

Chapter 7: Transfer and Disposal

Chapter 7 discusses existing practices and options for transfer and disposal methods. No recommendations are made for incineration, but recommendations were made for the other four elements of the solid waste transfer and disposal system.

System Policy: The new CSWMP includes a system policy that provides better guidance for future private or public waste handling facilities. Adoption of this CSWMP will bring this policy into effect, but one additional recommendation is being made regarding its implementation:

SP1) The Health Department shall modify their solid waste regulations to require ongoing contract compliance as a condition of the annual solid waste facility permit renewal requirements. That provision should also clearly state what facilities are covered under the regulations.

In-County Transfer: Discussion of in-county transfer led to the following recommendation:

T1) More than one transfer station should be allowed to operate in Skagit County, subject to normal permitting requirements and compatibility with the System Policy shown in Section 7.2.3.

Waste Import and Export: Discussion of waste imports and exports led to the following recommendation:

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.

In-County Landfilling: Discussion of in-county landfilling led to this recommendation:

L1) Old landfills that are known to exist throughout the County, and newly discovered dumps as these are discovered, must be further investigated to develop a better assessment of long-term liability, public and environmental health risks. As a result of these investigations, additional remedial actions may be necessary.

Chapter 8: Regulation and Administration

In addition to the recommendation for additional staffing made in Chapter 4, the following recommendation is made for 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.

Chapter 9: Special Wastes

This CSWMP examines the sources and existing programs for 15 special waste streams, and concludes that nine of these pose current or potential disposal problems. For these nine waste streams, options for improved handling were discussed and the following recommendations were developed.

Agricultural Wastes: This CSWMP recognizes that there are current problems with the handling and disposal of some agricultural wastes, but that these problems are largely being addressed by other agencies, leading to the following recommendation:

S1) Ongoing efforts by Ecology (to prevent water quality impacts) and the Conservation District (to promote best management practices) should be encouraged and supported as appropriate.

Biomedical Wastes: Syringes ("sharps") have been found improperly disposed in several locations, causing concerns about exposure to infectious diseases and leading to the following recommendation:

S2) The local solid waste code should be updated to define where and how biomedical wastes can be handled at Skagit County facilities.

Construction and Demolition (C&D) Wastes: C&D wastes are generated in significant quantities but lack adequate recycling or cost-effective disposal options, leading to the following recommendations:

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, including possible measures such as:

- requiring that a "solid waste and recycling plan" be submitted with building permit applications, especially for projects that will cost in excess of $15,000.
- implementing a deposit system, with the deposit refunded upon documentation of proper waste disposal (such as a receipt for disposal costs).

S4) Recognition programs should be considered for contractors with a proven history of proper disposal.

S5) Additional education should be conducted on the need for proper disposal and the problems associated with illegal dumping (see also Recommendation #PE3).

Disaster Debris: The need for improved handling of disaster debris in the future was of concern, leading to the following recommendation:

S6) In the event of a disaster, this CSWMP recommends using public properties for temporary storage/staging areas, and further recommends recycling where feasible. Materials that cannot feasibly be recycled should be disposed of properly.

Grease: Grease is a waste not easily handled by the solid waste disposal system or wastewater treatment systems, and should be managed through a separate collection and recycling program. Specific restaurants and other facilities, however, appear to have problems with proper management of grease. Part of the difficulty in addressing the problems that result from this are the variety of agencies that are involved with addressing various aspects of improper disposal methods, leading to the following recommendation:

S7) This CSWMP recommends improved communications between the Health Department, other municipal agencies and garbage collectors dealing with improper disposal of grease.

Industrial Wastes: Food processing wastes are classified as "industrial wastes" because these wastes are essentially derived from a manufacturing process. Food processing wastes are the only type of industrial waste that was found to be posing a problem currently. In this case there are other organizations (the Washington Department of Ecology and the Skagit Conservation District) that are addressing various aspects of the problem, leading to the following recommendation:

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.

Inert Wastes: New State regulations have created a class of waste called "inert wastes" and allow for less-stringent disposal methods for these wastes. Concern was expressed that these regulations could lead to increased disposal instead of more preferred options such as recycling, so the following recommendation is made:

S9) Recycling of inert wastes should be encouraged.

Moderate Risk Wastes (MRW): This CSWMP discusses various problems with the proper handling and disposal of moderate-risk wastes. Many of these wastes are already addressed by the MRW Plan, but the following two recommendations are made:

S10) This CSWMP recommends in favor of adopting the local MRW code, as previously recommended in the MRW Plan.

S11) A collection program should be developed to handle fluorescent bulbs from residential sources.

Street Sweepings: This CSWMP discusses various problems with the proper handling and disposal of street sweepings, leading to the following recommendation:

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.

IMPLEMENTATION SCHEDULE AND SUMMARY OF COSTS

Table E.1 summarizes the implementation schedule and costs for the recommended activities.

Table E.1. Implementation Schedule and Summary of Costs.

Recommended Activity		Lead Agency [1]	Schedule	Cost	Funding Source
B1)	A local study shall be conducted prior to substantial investments that depend on the composition of the waste.	Varies (w/over-sight by HD)	Ongoing [2]	Up to $40,000	Varies
WR1)	Continue existing waste reduction activities.	County PW	Ongoing	Existing [3]	County/CPG [4]
WR2)	Measurement method needed for waste reduction.	County PW	By Dec. 2005	New staff [5]	County [6]
WR3)	Promote establishment of reusable building material store.	County PW	2005 and ongoing	New staff	County
PE1)	Continue existing public education activities.	County PW	Ongoing	Existing	County/CPG
PE2)	Investigate potential for business recognition program.	County PW	2005	New staff	County/CPG
PE3)	Continue education on illegal dumping.	County PW/HD	Ongoing	$5,000 - $10,000/yr	County/CPG
R1)	Waste diversion goal is 50%.	County PW	Ongoing	Existing	NA [7]
R2)	UGAs are urban service areas, rural certificate (franchise) areas west of Hwy. 9 should get curbside recycling.	County PW, Cities and WM	Gaps filled within one year	Unknown	User fees
R3)	Hire Recycling Coordinator.	County PW	2005	up to $60K	County
R4)	Mixed waste processing proposals to be cautiously considered.	County PW	Ongoing	Staff time	NA
C1)	Curbside yard debris collection for UGAs and rural areas west of Highway 9.	WM/Cities	By December 2005	Unknown	User fees
C2)	Continue education on home composting of food waste.	County PW	Ongoing	Existing	County/CPG
C3)	Consider future proposals for food waste composting.	County PW/HD	Ongoing	Staff time	NA
C4)	Cautiously consider proposals for solid waste composting.	County PW/HD	Ongoing	Staff time	NA
WC1)	Cities to consider adding every-other-week garbage coll.	Cities	Ongoing	Staff time [8]	City
WC2)	Incentive rates to be added in Recycling Service Area.	WM	By Dec. 2005	Staff time	User fees

Notes:
1. For Lead Agency, County PW = Skagit County Public Works, HD = Skagit County Health Department, WM = Waste Management, and Cities may only refer to the cities with municipal collections, depending on the specific recommendation (see appropriate chapter for more details).
2. "Ongoing" = means this activity is expected to continue through the 20-year life of this CSWMP.
3. "Existing" = existing costs consist primarily of staff time and expenses already budgeted.
4. "County/CPG" as a funding source indicates some reliance on typical county funding sources (the tipping fee) but also significant contributions from the Coordinated Prevention Grant (CPG) funds administered by Ecology.
5. "New staff" indicates those recommendations that are contingent on the hiring of a new Recycling Coordinator.
6. "County" as a funding source indicates primarily the tipping fee revenues, and possibly other typical sources (see Chapter 8 and Table 8.1).
7. NA = Not Applicable. In the case of funding source, indicates that there is no specific cost associated with the recommendation.
8. The cost for the cities to consider adding every-other-week garbage collection (Recommendation #WC1) is shown as staff time only, but additional expenses such as a rate study may be necessary.

Table E.1. Implementation Schedule and Summary of Costs, continued.

Recommended Activity		Lead Agency [1]	Schedule	Cost	Funding Source
WC3)	Minimum service levels adopted.	PW, Cities, WM	Ongoing	NA	User fees
SP1)	Health Dept. to modify solid waste regulations.	County HD	By Dec. 2005	Existing [2]	NA [3]
T1)	Allow more than one transfer station.	County	When approved [4]	Existing	NA
WE1)	Waste must be disposed at designated facility.	County	Ongoing [5]	Existing	NA
L1)	Old landfills need further investigation.	County HD	Ongoing	Existing	County [6]
RA1)	Penalty for illegal dumping increased.	County	By Dec. 2005	Staff time [7]	County
S1)	Support for agricultural waste programs.	Ecology/SCD	Ongoing	Existing	NA
S2)	Modify solid waste code to address biomedical wastes	County PW/HD	Will occur in 2004	Staff time plus $3,000	County
S3)	Examine options for greater control over proper disposal of C&D wastes.	County PW/HD and Cities	By Dec. 2005	Staff time [8]	County
S4)	Recognition program for responsible contractors.	County PW	In 2005	New staff [7]	County
S5)	More education on proper disposal of C&D wastes.	County HD/PW	Ongoing	Existing	County
S6)	Disaster debris should be recycled if possible.	County, Cities	Ongoing	Staff time	NA
S7)	Joint efforts and improved communication to address grease disposal problems.	County HD, Cities, and WM	Ongoing	Staff time	NA
S8)	Support for improved handling of food processing wastes.	Ecology/SCD	Ongoing	Existing	NA
S9)	Recycling of inert wastes should be encouraged.	County PW/HD, WM and Others	Ongoing	New staff	Various
S10)	MRW code should be adopted.	County HD	In 2005	Staff time	NA
S11)	Start collection program for residential fluorescent tubes.	County PW	In 2005	Unknown	County
S12)	Improved management of street sweepings.	County, Cities, private sector	Beginning in 2004	Unknown	Various funding sources

Notes:
1. For Lead Agency, County PW = Skagit County Public Works, County HD = Health Department, WM = Waste Management, Cities may only refer to the cities with municipal collections or may refer to all cities (see appropriate chapter for more details), and SCD = Skagit Conservation District.
2. "Existing" = existing costs consist primarily of staff time and expenses already budgeted.
3. NA = Not Applicable. In the case of funding source, indicates that there is no specific cost associated with the recommendation, or no additional cost over funds that have already been budgeted.
4. "When approved" means that this recommendation will become effective only after final approval from Ecology is received for this CSWMP.
5. "Ongoing" = means this activity is expected to continue through the 20-year life of this CSWMP.
6. "County" as a funding source indicates primarily the tipping fee revenues, and possibly other typical sources (see Chapter 8 and Table 8.1).
7. "Staff time" indicates that the only significant costs would be staff time, with only minimal other expenses. "New staff" indicates those recommendations that are contingent on the hiring of a new Recycling Coordinator.
8. The cost for Recommendation #S3 may include some public education and outreach expenses at a later date, depending on the approach chosen.

CHAPTER 1: INTRODUCTION

1.1 ROLE AND PURPOSE

This Comprehensive Solid Waste Management Plan (CSWMP) 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, RCW 70.95 delegates the authority and responsibility for the development of solid waste management plans to the counties. Other governing bodies (cities, Tribes, and Federal agencies) may participate in the County's planning process or conduct their own plans. State law allows cities to fulfill their solid waste management planning responsibilities in one of three ways:

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

The various Tribes in Skagit County generally use the County's waste disposal facilities. Because this CSWMP 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 CSWMP are specified by State law (RCW 70.95.090) and further described in Guidelines for the Development of Local Solid Waste Management Plans and Plan Revisions issued by the Washington Department of Ecology (Ecology 1999). 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 CSWMP 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 CSWMP's 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 Comprehensive Solid Waste Management Plan must function within a framework created by other plans and programs, including policy documents and studies which deal with related matters. One of the more important of these documents is the Skagit County Comprehensive Plan (adopted in 1997 and amended in July 2000). Other important documents that must be taken into consideration for solid waste planning include the Moderate Risk Waste Management Plan (SCS 1992), Shoreline Management Plan 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, and 1994. Table 1.1 shows the recommendations from the most recent plan and the status of these recommendations.

Other relevant solid waste documents include the Skagit County Transfer Station Alternatives Analysis (EM 2002), Report on Skagit County Recycling Center and Transfer Station (URS 1996), Comprehensive Solid Waste Rate Study (EES 1995), Alternatives Assessment Report (RRFAC 1995), Waste Stream Composition Study (Beck 1990), and recent annual reports by the Skagit County Solid Waste Division.

Table 1.1. Status of Recommendations from the Previous Solid Waste Plan.

Waste Reduction	Current Status
4-1. Continue public education activities, consider hiring Public Information Specialist	Ongoing
4-2. Continue to provide school curriculum support.	Ongoing
4-3. Continue Master Composter/Recycling training and activities.	Ongoing
4-4. Continue to promote waste reduction/ recycling in County offices.	Ongoing
4-4 (second part). Require departmental plans for reduction/recycling.	Not accomplished
4-5. Modify policies and specifications to promote waste reduction.	Not accomplished
4-6. Encourage federal and state policy changes.	Not accomplished
4-7. Evaluate taxes, fees, and fines for problem wastes.	Not accomplished
4-8. Encourage rate incentives in unincorporated areas.	Not accomplished
4-9. Consider deposits on specific materials.	Not accomplished
4-10. Consider banning specific materials.	Not accomplished
4-11. Continue providing technical assistance to businesses.	Ongoing
4-12. Consider shelf-labeling program.	Not accomplished
4-13. Encourage the use of waste exchanges.	Limited to Hazardous Waste Facility and County departments
4-14. Provide opportunities to donate reusable items at disposal sites.	Not accomplished
4-15. Support businesses and organizations that reuse products.	Ongoing (but no specific activity)
4-16. County should create separate line item for waste reduction.	Accomplished
Recycling and Composting	
5-1. County continue to provide recycling and take lead in program dev.	Accomplished
5-2. County and collection companies continue curbside and drop-off recycling programs.	Ongoing
5-3. County should continue and possibly expand the multi-family recycling program.	Accomplished in Anacortes, Burlington, Mount Vernon, Sedro Woolley
5-4. Encourage private recyclers to continue and expand commercial recycling programs.	Ongoing (but not actively)
5-5. County take the lead in public education.	Ongoing
5-6. County should implement commercial recycling program.	Not accomplished
5-7. County should facilitate the establishment of one or more composting facilities.	Accomplished by private industry
5-8. County should work with existing composting sites to ensure regulatory compliance.	Ongoing
5-9. County should implement a data collection program.	Not accomplished
5-10. County should encourage variable rate collection structures, and incentives for self-haulers.	Not accomplished
5-11. County should lobby for pro-recycling laws and regulations.	Not accomplished
5-12. County and cities continue or expand in-house WRR.	Ongoing at County level
5-13. Review urban and rural boundaries for next SWMP Update	Accomplished through comprehensive plan
5-14. Review and modify list of designated recyclables annually.	Ongoing (but not yearly)
5-15. Encourage in-county processing for recyclables.	Ongoing
5-16. Encourage joint recycling and marketing efforts by businesses.	Not accomplished
5-17. Mixed waste processing should be used to recover recyclables (see also Recommendations 6-1, 6-2 and 6-3) before incineration.	Not accomplished
5-18. Cost for residential recycling should be included in city utility bills.	Accomplished
Energy Recovery/Incineration	
6-1. Solicit proposals for pre-processing of wastes, prior to processing by Resource Recovery Facility (RRF)	No longer applicable
6-2. Conduct pre-processing to remove problem materials.	No longer applicable
6-3. Implement pre-processing, ash processing and source separation to remove non-combustible recyclables.	No longer applicable
6-4. Conduct feasibility study to provide additional capacity and flexibility for solid waste management system.	No longer applicable
6-5. Consider test burn program for special wastes (see also Recommendations 10.4-4, 10.6-2, 10.8-3, and 10.9-2).	No longer applicable
6-6. Investigate ash utilization and stabilization options.	No longer applicable

Table 1.1, Status of Recommendations from the Previous Plan, continued.

Landfills	**Current Status**
7-1. Investigate in-county landfill for non-recyclable CDL wastes (see also Recommendations 10.5.3 and 10.6.1).	Not accomplished
7-2. Close Inman LF in April 1994 and initiate post-closure monitoring.	Accomplished
7-3. Continue to dispose of CDL at Inman Landfill until closure.	Accomplished
7-4. Continue to export ash, and after 1994, also export non-recoverable CDL and non-processible waste.	No longer applicable
Collection	
8-1. Continue to investigate collection district, and implement by 1995?	Investigated (but not implemented)
8-2. Changes in rural drop boxes and transfer station should be evaluated in terms of service needs.	Accomplished
8-3. Adopt service level standards for recycling collections.	Not accomplished
8-4. Notify WUTC to carry out WRR plans in unincorporated areas.	Accomplished
8-5. Variable rates should be used in cities and unincorporated areas.	Not accomplished
8-6. County should evaluate alternative fees to provide incentive for separation of recyclables.	Accomplished
Transfer	
9-1. If universal collection is adopted, drop box sites should be changed to recycling depots.	Re-evaluated
9-2. Develop long-term transfer plan.	Accomplished
9-3. County to secure proposals for full-service transfer station.	Not accomplished
Special Wastes	
10.2-1. Continue land application of sewage sludge.	No longer applicable, no longer classified as solid waste per Fed. regs, now a liquid waste.
10.2-2. Sewage sludge mgmt. policy should be developed.	No longer applicable
10.2-3. Investigate co-composting of sewage sludge.	No longer applicable
10.2-4. Continue to review new technologies for utilization of sewage sludge.	No longer applicable
10.3-1. Continue to investigate programs for improving ash quality.	No longer applicable
10.3-2. Review ash test results and regulations.	No longer applicable
10.3-3. Consider chemical stabilization of ash.	No longer applicable
10.3-4. Petition Ecology to relax ash regulations to be in line with federal policy.	No longer applicable
10.4-1. Determine capacity of treatment plants for septage.	No longer applicable
10.4-2. Health Department should have authority over septage pumpers.	No longer applicable
10.4-3. Study co-composting of septage.	No longer applicable
10.4-4. Evaluate incineration of septage at RRF.	No longer applicable
10.5-1. Continue to use CDL and non-processibles to accomplish grading plan at Inman Landfill.	Completed
10.5-2. Export non-recoverable CDL after Inman Landfill closes, until other options are available.	Ongoing
10.5-3. County should facilitate development of CDL processing facilities.	Ongoing by private industry
10.5-4. Through permitting process, provide contractors with CDL disposal and recycling information.	Ongoing
10.6-1. Investigate wood waste recycling operation.	Ongoing by private industry
10.6-2. Evaluate interim incineration of wood waste at RRF.	No longer applicable
10.7-1. Continue current disposal practices for industrial wastes.	Ongoing
10.8-1. Continue to encourage private tire collections.	Ongoing
10.8-2. Investigate tire recycling opportunities.	Ongoing
10.8-3. Conduct a test burn for tires at RRF.	No longer applicable
10.9-1. Monitor biomedical waste management, develop management plan if necessary.	Not accomplished
10.9-2. Review and test options for incinerating biomedical wastes at RRF.	No longer applicable

Table 1.1, Status of Recommendations from the Previous Plan, continued.

Special Wastes, continued	Current Status
10.9-3. Encourage small biomedical waste generators to contract with private collection/disposal services.	Ongoing
10.9-4. Health Dept. should expand on Ecology's education program for at-home biomedical waste generators.	Ongoing
10.10-1. Encourage more on-site remediation of petroleum-contaminated soil (PCS).	Ongoing
10.10-2. Continue disposing of PCS at Inman Landfill until closure.	Accomplished
10.10-3. Investigate disposal options for PCS when Inman Landfill is closed.	Not accomplished
10.11-1. Investigate disposal options for asbestos.	Handled by Northwest Air Pollution Authority
10.11-2. County should prepare fact sheet for proper disposal of asbestos.	Handled by Northwest Air Pollution Authority
10.12-1. Continue to offer options and education for proper handling of white goods (large appliances).	Ongoing
10.12-2. Consider annual collection event for white goods.	Considered but not implemented
Marketing for Post-Consumer Materials	
11-1. Funding for market development should be given high priority by Whatcom and Skagit Counties.	Not accomplished
11-2. Establish regional economic development program for post-consumer materials.	Not accomplished
11-3. Target materials should be identified by Whatcom and Skagit Counties for the regional economic development program.	Not accomplished
11-4. Should request funding for demonstration projects for post-consumer materials.	Not accomplished
11-5. Provide technical assistance to cities and districts for developing procurement policies.	Not accomplished
11-6. Continue funding for Third Arrow project until not needed.	Not accomplished
11-7. Expand consumers' buy recycled campaign.	Ongoing
Administration and Enforcement	
12-1. Evaluate solid waste disposal district.	Considered but not implemented
12-2. County should consider hiring a hydrogeologist and a solid waste planner.	Hydrogeologist hired
12-3. County should continue administering solid waste programs and act as lead agency for capital improvements.	Ongoing
12-4. SWAC should play an active role in monitoring and evaluating solid waste programs and budget.	Ongoing
12-5. Beginning in 1994, County should set aside funds for post-closure activities.	No longer applicable
12-6. Ordinance or other mechanism should be used to increase Health Dept. authority on illegal dumping.	Accomplished
12-7. Continue current funding mechanisms for Public Works and Health Dept. solid waste activities.	Ongoing
12-8. Health Dept. should expand public education of illegal dumping problems.	Ongoing
12-9. Waste import should be considered to improve finances of RRF.	No longer applicable

1.6 SOLID WASTE ADVISORY COMMITTEE

This updated CSWMP was prepared with the assistance of the County's Solid Waste Advisory Committee (SWAC), County and City staff, and other interested parties. The formation, membership makeup, and role of the SWAC are specified by State law (RCW 70.95.165 (3)):

> "Each county shall establish a local solid waste advisory committee to assist in the development of programs and policies concerning solid waste handling and disposal and to review and comment upon proposed rules, policies, or ordinances prior to their adoption. Such committees shall consist of a minimum of nine members and shall represent a balance of interests including, but not limited to, citizens, public interest groups, business, the waste management industry, and local elected public officials. The members shall be appointed by the county legislative authority."

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 current membership (as of January 2004) and affiliations of the SWAC members are shown in Table 1.2.

Table 1.2. Membership of the Skagit County SWAC.

Voting Members	Representing
Marc Krueger	City of Anacortes
Ivan Rasmussen	City of Burlington
Scott Sutherland	City of Mount Vernon
Leo Jacobs	City of Sedro Woolley
Britt Pfaff-Dunton	Health Department
Steve Hendrickson	Recyclers
Tim Crosby	Haulers
Bruce Moberg	Environmental
Casey Conrad	Business/Industry
Dean Hendrickson	Demo-Construction Waste
Pete Jepson	District #1 Citizens
Vacant	District #2 Citizens
Vacant	District #3 Citizens
Michele Mead	Upriver Cities
Ken MacKenzie	At Large
Sue Moreno	Swinomish Indian Tribal Community
Vacant	Builders
Ex-Officio Members	
Gary Sorensen	Skagit County Public Works
Peter Christiansen	Department of Ecology

1.7 PROCESS FOR UPDATING THE CSWMP

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

1. a "Stakeholders Workshop" was organized to gather policy input and other comments from the signatories to the existing (1994) solid waste plan.

2. draft chapters were developed and presented to the SWAC, County staff and others for review and comment.

3. the draft chapters were revised based on comments received and then compiled into a "first draft" for review and comment by the SWAC, municipalities and County staff.

4. revisions and updates were made to the first draft to create the Preliminary Draft CSWMP.

5. the Preliminary Draft was reviewed by the public, cities, Tribes, Ecology, WUTC and others.

6. comments on the Preliminary Draft were used to produce the Final Draft CSWMP.

7. the Final Draft was reviewed by the Skagit County Planning Commission (this CSWMP is considered to be one of the "functional plans" integral to the Skagit County Comprehensive Plan), and the SEPA review process was conducted at that same time.

8. the Final Draft was offered for adoption by cities, Tribes, and Skagit County. Some cities have adopted it (see Appendix A2) and the County adopted it on October 3, 2005.

9. the Final Draft, with resolutions of adoption, was submitted to Ecology and final approval granted December 2, 2005 (see Appendix A). This completed the planning process and this CSWMP now replaces the previous plan.

Ecology's Planning Guidelines require that solid waste management plans be reviewed at least every five years, with the five-year period beginning when the current plan has received final approval from Ecology. For the current plan, where final approval from Ecology occurred in 2005, the need for an update should be assessed in 2008 to allow time for the development of the next plan if necessary. The plan should then be reviewed periodically (at least annually) after 2008 to determine if an update is needed. At any point in time, however, it may be necessary to revise this CSWMP 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 CSWMP current for minor changes. Amendments can be used when there are minor changes in programs, financing and operations, and these changes are still within the original scope and goals of the CSWMP. 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 a change in the disposal method, the development of a new transfer station or disposal facility, addition or deletion of curbside recycling programs, other significant changes in service levels, and regionalization of programs. The process for adopting a revision to the CSWMP would be similar to the process for creating the CSWMP in the first place, but amendments can be adopted through a simpler process.

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

1. a proposed amendment to the CSWMP 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 act upon the proposed amendment by forming recommendations in a timely manner. Once a recommendation has been adopted or drafted by the SWAC, it should be submitted to Ecology staff for review and comment.

3. 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 may require a meeting of the Municipalities Committee (as described in the interlocal agreements) or similar activities consistent with agreements and procedures in effect at that time.

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

1.8 GOALS AND OBJECTIVES OF THE CSWMP

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

- consider a range of public and private options for solid waste management that creates a long-term sustainable system.
- lead to the lowest costs and best possible service levels.
- establish level-of-service standards for urban and rural areas.
- meet governmental financial, environmental and public health obligations.
- reflect a common commitment to environmental protection and preservation of quality of life.
- provide a basis for equitable allocation of costs among those receiving 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.
- review current solid waste regulations and policies, giving particular attention to waste stream reduction, recycling and future disposal needs.
- incorporate flexibility to anticipate future needs.

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 CSWMP

The Comprehensive Solid Waste Management Plan is organized into the following chapters:

Chapter 2: Background
Chapter 3: Waste Reduction and Public Education
Chapter 4: Recycling
Chapter 5: Composting
Chapter 6: Waste Collection
Chapter 7: Transfer and Disposal
Chapter 8: Regulation and Administration
Chapter 9: Special Wastes

Chapter 2 provides important information about demographics, waste quantities and other factors common to the remaining chapters. Chapters 3 through 9 address particular 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.
- examine alternatives to meet the identified needs, problems and opportunities.
- 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 WUTC Cost Assessment Questionnaire and the SEPA Checklist. In the final copy of this plan, Appendix A will contain resolutions of adoption by the participating jurisdictions.

1.10 STANDARD NOMENCLATURE USED IN THE CSWMP

This CSWMP 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. 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 CSWMP 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, "containers" can be used for either recycling or waste, and "recycling bin" refers to the smaller boxes used by households for curbside recycling. More information about the definitions for words used in this CSWMP can be found in the Glossary.

CHAPTER 2: BACKGROUND OF THE PLANNING AREA

2.1 INTRODUCTION

This chapter provides background information on the geography, demographics and existing conditions in Skagit County. This information is required by Ecology's guidelines and it is used in several of the following chapters of this Comprehensive Solid Waste Management Plan (CSWMP).

The information in this chapter is organized into three sections:

2.2 Description of the Planning Area
2.3 Evaluation of Potential Sites for Solid Waste Facilities
2.4 Quantity and Composition of Solid Waste

2.2 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.

2.2.1 Natural Environment

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 which 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 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 coniferous forests. 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 red 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.

2.2.2 Human Environment

Current Population/Demographics

According to figures prepared by the Washington State Office of Financial Management (OFM 2002), the population of Skagit County in 2001 was an estimated 104,100 people. The current

figures from OFM include the results of the 2000 census. Data from the Skagit County Planning and Permit Center shows population by Urban Growth Area (UGA), which addresses future growth for specific areas but the currently-available data by UGA has not been updated for the 2000 census. For comparison purposes, Table 2.1 shows the County's population distribution by UGA for 1995 and 2000, and shows figures for the number of housing units for 2003 by existing city limits based on the recent census data. Figure 2.1 shows the incorporated and urban growth areas.

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 previous and projected population figures for Skagit County. As shown in Table 2.2, the population of Skagit County is expected to increase by almost 50,000 people from 2000 to 2020 (i.e., the approximate planning period for this CSWMP).

2.3 EVALUATION OF POTENTIAL SITES FOR SOLID WASTE FACILITIES

This CSWMP 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."

2.3.1 Solid Waste Facility Siting Factors

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.

Table 2.1. Skagit County Population by Area.

City or UGA	Population by Urban Growth Areas (UGA's)[1]			Number of Housing Units by City[2]
	1995[1]	2000[1]	Annual Increase, %	
Anacortes	12,960	14,130	1.8%	6,870
Big Lake	1,000	1,300	6.0%	NA[3]
Burlington	6,995	7,380	1.1%	2,690
Burlington/County	2,000	2,355	3.6%	NA
Concrete	882	961	1.8%	340
Hamilton	282	297	1.1%	160
LaConner	739	772	0.9%	440
Lyman	312	320	0.5%	180
Mount Vernon	23,416	28,531	4.4%	10,140
Sedro Woolley	8,340	9,135	1.9%	3,550
Swinomish	1,500	1,805	4.1%	NA
Subtotal	56,430	66,990	3.7%	24,370
Non-UGA or Unincorporated Areas	36,670	36,490	- 0.1%	20,580
Skagit County, Total	93,100	103,480	2.2%	44,950

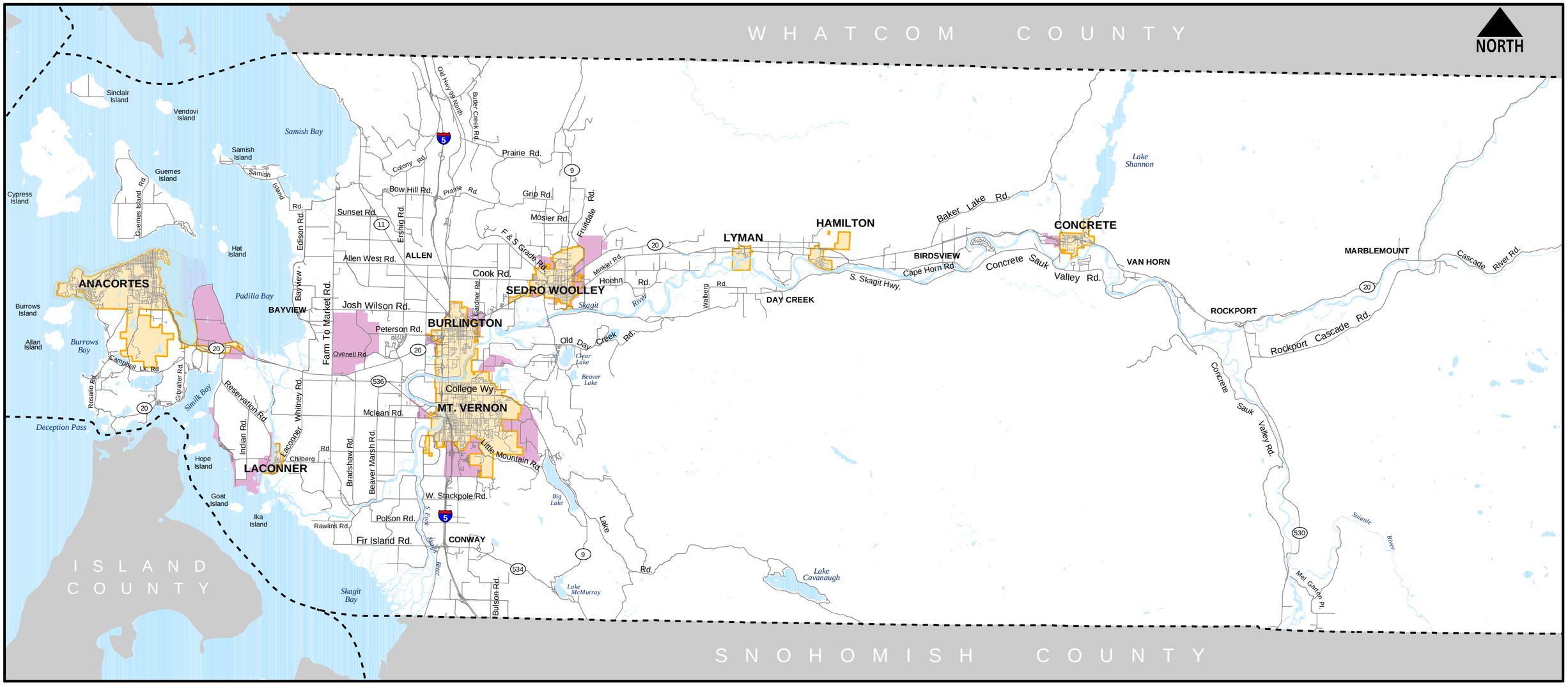
Notes:
1. From the Skagit County Comprehensive Plan (SC 1997), Table 4.
2. Figures for the number of housing units by area are from the Office of Financial Management for the year 2003 (OFM 2003).
3. NA = Not Applicable, OFM shows data by city boundaries only and does not address unincorporated UGA's.

Table 2.2. Skagit County Population Trends.

Year	Total Population[1]	Percent Change[2]
1950	43,270	---
1960	51,350	18.7%
1970	52,380	2.0%
1980	64,140	22.5%
1990	79,550	24.0%
2000	103,475	30.6%
2010	125,510	21.3%
2020	150,450	19.9%

Notes:
1. Population figures for the years 1950 through 2010 are from the Skagit County Comprehensive Plan (SC 1997), Tables 1 and 4. The population figure for 2020 is from the Office of Financial Management (OFM 2002).
2. Percent change is calculated by dividing the increase from the previous year by the amount in the previous year, and then expressed as a percentage.

Skagit County Urban Growth Areas



MAP LEGEND

Incorporated Areas

Urban Growth Areas (UGA)

0 1 2 4 6 8 Miles

Map Print Date: January 22, 2004

* Note: UGA boundaries from Skagit County Comprehensive Plan adopted July 28, 2003.

SKAGIT COUNTY GIS DIVISION

FIGURE 2.1

The uniform building code classifies areas of the United States into seismic zones for the purposes of developing design criteria for building construction which 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. Over 6,000 households, or at least 14% of the County's residents, depend on private wells for water. Agricultural uses (irrigation), which also depend on a relatively clean source of groundwater, 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, 57% 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. The unincorporated areas that are designated as urban growth areas are shown in Figure 2.1 and listed in Table 2.1.

Land uses in the unincorporated area of the County are focused on natural resource use and include timber, agriculture and mining. Approximately 900,000 acres of the County are forested lands with roughly half of this acreage owned by the Federal government. Farmland comprises approximately 95,400 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 (NWAPA 2002). 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.

The major sources of air pollution have shifted from industrial to transportation and burning (NWAPA 2002). Whereas historically industrial processes were the major source of air pollution problems, increasing regulation has reduced industry's contribution to only 14% of the total on a statewide basis. The largest source is now transportation (57%), with wood stoves contributing 10% and outdoor burning contributing another 6%.

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.

2.3.2 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 1997), 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, 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.

2.4 QUANTITY AND COMPOSITION OF SOLID WASTE

An estimate of the composition 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.

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 Recycling & Transfer Station (RTS) and transported to a large regional landfill in Klickitat County, Washington. A small percentage "migrates" out of the County for various reasons, especially construction debris (where recycling or less-expensive disposal facilities may be available in other areas). Waste from commercial sources may end up in other disposal systems, and individuals may also bring their waste to disposal facilities in other counties.

This CSWMP 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.

2.4.1 Past and Present Solid Waste Quantities

Skagit County's waste stream has varied significantly in quantity over the past 15 years. Table 2.3 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 the waste amounts that are exported directly to out-of-county facilities.

Information on the current (2003) municipal solid waste quantities by source (see Table 2.4) was provided by County staff from the records of the Skagit County RTS and rural drop box sites.

The rate at which solid waste is generated varies throughout the year due to seasonal differences in residential and commercial activities. Data from RTS records shows that the amount of solid waste disposed in any one month in 2001 varied from a minimum of 5,759 tons in February to a maximum of 8,488 tons in August.

2.4.2 Current Recycling Levels

It is estimated that at least 27% of Skagit County's waste stream is currently recycled and composted (see Table 2.5). This figure is generally called a "recycling rate," although it includes composting and some reuse as well. The figure is based on a minimum of 48,470 tons reported as being recycled in 2002, versus 180,660 tons of waste generated (i.e., waste that is disposed, recycled, and handled through other methods). Data for some materials is not reported to the Department of Ecology by some companies and hence is not shown in Table 2.5. There is also no estimate available on the current levels of waste diverted by most forms of waste reduction, although a few categories of reuse (especially textiles and building materials) 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 would likely increase to 32% or more. The figures shown for "diverted materials" are those activities that are not counted as recycling (such as incineration), but that still serve to divert material from the waste disposal system.

Table 2.3. Annual Disposal Tonnages in Skagit County.

Year	Total Waste, TPY[1]	Percent Change[2]	Tipping Fee
1984	42,072	--	
1985	43,658	4%	
1986	47,780	9%	
1987	46,399	-3%	$27.50
1988	57,703	24%	$36.25
1989	58,943	2%	$36.25
1990	61,058	4%	$47.00
1991	52,705	-14%[3]	$60.00
1992	59,781	13%	$80.00
1993	63,377	6%	$80.00
1994	65,786	4%	$80.00
1995	65,808	0%	$80.00
1996	65,340	-1%	$100.00
1997	67,056	3%	$100.00
1998	70,705	5%	$100.00
1999	78,901	12%	$90.00
2000	83,249	6%	$82.00
2001	86,498	4%	$82.00
2002	89,891	4%	$82.00
2003	93,357	4%	$82.00

Notes:
1. TPY = tons per year. Figures shown are "revenue tons," or the waste that crosses the scales at the transfer station and rural drop boxes.
2. Percent change calculated by dividing the increase from the previous year by the amount in the previous year, and then expressed as a percentage.
3. Tipping fees shown do not include refuse tax.
4. Reduction in annual tonnage in 1991 can likely be explained by the tipping fee credit provided for diversion of non-combustible materials away from the incinerator, or by the increase in tipping fee, with the increase in 1992 resulting from those tonnages being returned to the system.

Table 2.4. Skagit County Waste Tonnages (2003).

Source	Total Tons, 2003	Percent of Total
City of Anacortes	7,556	8.1%
City of Burlington	5,161	5.5%
City of Mount Vernon	18,479	19.8%
City of Sedro Woolley	4,846	5.2%
Waste Management (rural areas)	31,713	34.0%
Rural Drop Boxes	2,042	2.2%
Self-Haul	23,560	25.2%
TOTAL	93,357*	100.0%

* Total tonnage is based on waste export shipments, data for individual sources is from County records, and the self-haul amount is by remainder.

Table 2.5. Recycled Quantities by Material.

Recycled Materials	Tons Recycled, 2002[1]	
Aluminum Cans	128.8	
Food Waste	525.1	
Fluorescent Light Bulbs	1.1	
Glass	----	
Metals, Ferrous	4,999.8	
Metals, Non-Ferrous	751.2	
Paper, Cardboard	2,632.4	
Paper, High Grade	196.4	
Paper, Mixed Waste Paper	3,672.6	
Paper, Newspaper	----	
Photographic Film	----	
Plastic Bottles	87.6	
Plastic, Other	45.6	
Textiles, Wood, Other Reuse	2,549.8	
Tires	536.7	
Used Oil	464.1	
Vehicle, Household Batteries	362.0	
White Goods (Appliances)	1,249.1	
Wood	979.3	
Yard Debris, Other Compostables	7,732.9	
Tons Recycled	48,466	TPY
Diverted Materials[2]	**Tons Diverted, 2002**	
Antifreeze	78.7	
Asphalt/Concrete	----	
Const./Demo./Landclearing	7,549.5	
Oil Filters	61.3	
Oil for Energy Recovery	----	
Tires for Energy Recovery	----	
Wood for Energy Recovery	----	
Additional Diversion, Tons	42,312	TPY
Tons Disposed (2002)	89,891	TPY
Total Tons Generated	180,670	TPY
Recycling/Composting Rate	26.8%	

Notes:

1. Data on recycled and diverted tonnages is from Ecology's annual recycling survey. To preserve confidentiality for the survey respondents, only those materials with three or more companies reporting are shown above. Data for materials with only one or two respondents, such as concrete/asphalt, cannot be shown but is included in the total amount.
2. "Diverted materials" includes recycling of construction/demolition/landclearing wastes, wastes used for energy recovery, and other activities that do not meet Ecology's definition of recycling but that are leading to wastes being handled in a more productive fashion outside of the disposal system.

2.4.3 Future Solid Waste Quantities

Future solid waste quantities can be projected from the current amount of waste based on factors such as population growth. This approach assumes that the amount of waste will continue to vary in proportion to the population of the County. A more precise forecasting model might look at residential, commercial/industrial, and agricultural wastes separately, correlating those to future predictions for population, employment and the amount of cultivated agricultural lands, but the quality of Skagit County's waste data and the current state of knowledge on waste generation rates in general are not sufficiently precise to allow this type of approach to be applied accurately.

If the amount of recycled materials shown in Table 2.5 is somewhat understated as it is suspected and the actual recycling/composting/reuse rate is around 32%, then the adjusted figure for recycling increases from 48,466 to 62,200 tons in 2002 and total tons generated increases from 180,670 to 194,400 tons. The per capita generation rate can be calculated based on the total tons (194,400) and current population (107,900), which is the equivalent of 1.80 tons per person per year or 9.9 pounds per person per day. Adjusting slightly for actual 2003 disposal quantities (excluding debris from the October 2003 flood), yields a waste generation rate of 10.1 pounds per person per day.

In Table 2.6, waste quantities have been projected using the current per capita generation rate (10.1 pounds per person per day) multiplied by population forecasts for the County. The amount of recycling in future years has been projected assuming that the current rate is 32% and that this rate stays the same throughout the years. The amount of diverted materials has been assumed to stay the same as well, at 21.8% of the total. Disposed tonnages have been calculated by subtracting the recycled and diverted tonnages from the total amount of waste generated.

Table 2.6. Projected Solid Waste Tonnages.

Year	Total Population[1]	Waste Generated, TPY	Recycled, TPY	Additional Diversion, TPY	Amount Disposed, TPY
2002	107,900	194,400	62,200	42,300	89,900
2003	110,200	203,000	65,000	44,200	93,400
2004	112,400	207,100	66,300	45,100	95,700
2005	114,600	211,200	67,600	46,000	97,600
2006	116,800	215,200	68,900	46,800	99,500
2007	119,000	219,200	70,100	47,700	101,400
2008	121,200	223,300	71,500	48,600	103,200
2009	123,300	227,100	72,700	49,400	105,000
2010	125,500	231,200	74,000	50,300	106,900
2015	137,700	253,700	81,200	55,200	117,300
2020	150,500	277,100	88,700	60,300	128,100

Notes:
1. Population data through 2015 is from the Skagit County Comprehensive Plan (SC 1997), interpolated as needed, and for the year 2020 is from OFM (OFM 2002).

TPY = tons per year.

By using the current generation and recycling rates, the projected figures shown in Table 2.6 assume no change in the amount of waste generated or recycled and reduced by each person. 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. In the long run, these assumptions will lead to ever-increasing differences between the predicted and actual amounts of generated waste because these and other factors will in fact change. The amount of recycling and waste reduction will also likely change. Hence, the projections shown in Table 2.6 at best provide a conservative estimate for planning purposes.

2.4.4 Solid Waste Composition

Composition data for Skagit County's waste stream is needed to assist in designing solid waste handling and disposal programs. The most recent composition study performed in Skagit County was conducted in 1990. This study, the Waste Stream Composition Study (Beck 1990), divided the County's waste stream into three types of waste generators. The three types of waste generators were residential, commercial and self-haul/rural compactor. Waste composition data is shown in Table 2.7 for the County overall and for the three specific types of waste generators. This data was collected prior to the implementation of curbside recycling in several cities and prior to the diversion of organic materials through private efforts, so it very likely that significant changes have occurred since the data was gathered.

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

2.4.5 Conclusions and Recommendations

Based on the projections shown in Table 2.6, the capacity of existing facilities and disposal systems is adequate to handle the needs of Skagit County through the planning period.

The quality of the recycling data could be improved, but collecting this data at the local level would be a time-consuming effort with only minimal benefits. Ecology staff undertake a serious effort each year to collect this data, and it would be more effective to support or supplement those efforts.

As mentioned above, the composition data for Skagit County has been outdated by changes that have taken place in recent years (more recycling programs, yard waste bans, etc.). Performing a waste composition study or similar analysis of Skagit County's waste stream would be helpful, especially if programs or facilities are proposed that depend on the composition of the waste stream. In that case, a detailed local study would be very important to conduct, thus the following recommendation:

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.

This recommendation should apply to any new facilities or programs that will invest an excess of $500,000, and should include an analysis of seasonal variations and other relevant factors. In order

Table 2.7. Estimated Solid Waste Composition in Skagit County.

Material	Entire Waste Stream		Typical Composition of Select Waste Streams, % by Wt.[1]		
	Percent by Weight[1]	Tons of Material[2]	Residential	Commercial	Self-Haul
Paper	**31.1%**	**26,900**	**31.9%**	**35.2%**	**17.4%**
Newspaper	3.6	3,114	4.8	2.7	3.2
Cardboard	8.1	7,006	5.0	11.8	5.0
Office, Computer Paper	0.9	778	0.5	1.3	0.2
Mixed Recyclable Paper	7.6	6,574	11.0	6.0	3.5
Other Paper	11.0	9,515	10.6	13.3	5.5
Plastic	**10.4**	**8,996**	**9.0**	**13.3**	**5.8**
PET Bottles	0.2	173	0.2	0.1	0.3
HDPE Bottles	0.5	432	0.4	0.6	0.3
Polystyrene	0.7	605	0.6	0.9	0.2
Other Plastics	9.1	7,871	7.7	11.7	5.1
Glass	**7.1**	**6,141**	**8.0**	**5.8**	**8.8**
Nonrefillable Beer	1.1	951	1.0	1.1	1.2
Refillable Beer	0.2	173	0.2	0.2	0.2
Nonrefillable Pop	1.0	865	1.4	0.8	0.7
Refillable Pop	0.1	86	0.0	0.2	0.0
Container Glass	4.4	3,806	5.1	3.3	5.8
Nonrecyclable Glass	0.3	259	0.3	0.2	0.8
Metals	**10.8**	**9,342**	**9.3**	**7.2**	**24.1**
Aluminum Cans	0.7	605	0.7	0.7	0.8
Tin Cans	2.5	2,162	2.9	2.3	1.9
Ferrous Metals	2.5	2,162	1.0	0.5	11.8
Non-Ferrous Metals	1.4	1,211	2.1	0.8	1.7
Mixed Metals	3.7	3,200	2.6	3.1	8.0
Organics, Other	**29.5**	**25,517**	**33.7**	**26.2**	**27.7**
Food Waste	12.5	10,812	11.4	15.3	7.5
Yard Debris	6.9	5,968	12.7	2.5	4.9
Disposable Diapers	1.9	1,643	3.0	1.6	0.4
Textiles/Leather	2.7	2,335	2.3	1.7	6.1
Tires and Rubber Products	1.0	865	0.5	1.5	1.1
Hazardous/Special Wastes	0.7	605	0.8	0.5	0.6
Other Materials	3.8	3,287	3.0	3.1	7.1
Construction Debris	**11.1**	**9,601**	**8.0**	**12.5**	**16.0**
Wood Waste	3.6	3,114	1.9	4.2	6.2
Construction Debris	7.5	6,487	6.1	8.3	9.8
TOTAL TONS =		86,498			

Notes: These figures are not precise and should only be taken as an indication of the relative amounts of materials that may be present in Skagit County's waste stream. Furthermore, under no circumstances would 100% of the recyclable materials be recoverable.

1. From "Waste Stream Composition Study" (Beck 1990).
2. Based on the 2001 tonnage for Skagit County (86,498 tons) and percentages shown in the column to the left.

to ensure that the appropriate data is collected, the study parameters should be reviewed and approved by the Skagit County Health Department prior to embarking on such a study. The cost of this study could be up to $40,000, depending on the number of materials to be examined and the desired level of precision in the results. The party responsible for funding this study should be the proponent of the program or facility that triggered this need.

CHAPTER 3: WASTE REDUCTION AND PUBLIC EDUCATION

3.1 INTRODUCTION

The solid waste management activities discussed in this chapter are organized into three sections:

3.2 Preface to the Waste Reduction, Recycling and Composting Chapters
3.3 Waste Reduction
3.4 Public Education

The preface to this and the next two chapters is provided here because there are several issues and a significant amount of background information that is common to all three of the waste diversion techniques (waste reduction, recycling and composting). Public education is also common to the three techniques, and so general public education methods are discussed in this chapter as well.

3.2 PREFACE TO THE WASTE REDUCTION, RECYCLING AND COMPOSTING CHAPTERS

3.2.1 Introduction

This chapter, together with the following two chapters on recycling and composting, 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. Collectively, these approaches (waste reduction, recycling and composting) are known as "waste diversion" (although Ecology has recently begun using the term "diverted materials" in a broader sense to include energy recovery and other activities).

3.2.2 Purpose

Chapters 3, 4 and 5 provide an update of the County's waste diversion methods as well as fulfill State requirements regarding waste reduction and recycling programs. The State requirements are based on the "Waste Not Washington" Act (ESHB 1671), which are in turn reflected in various sections of the Revised Codes of Washington (RCW) and the Washington Administrative Codes (WAC). RCW 70.95 requires that local solid waste management plans demonstrate how the following goals (among others) will be met:

- Washington State's goal is to achieve a statewide recycling and composting rate of 50% by 2007.
- there is also a statewide goal to eliminate yard debris from landfills by 2012 in those areas where alternatives exist.
- source separation of waste (at a minimum, separation into recyclable and non-recyclable fractions) must be a fundamental strategy of solid waste management.
- steps should be taken to make recycling at least as affordable and convenient to the ratepayer as mixed waste disposal.
- RCW 70.95 requires that county and city governments assume the primary responsibility for solid waste management and implement effective waste reduction and recycling strategies.

3.2.3 Waste Diversion Goals

The State's goal is to reach 50% recycling and composting by 2007. RCW 70.95 does not mandate that each county or city achieve 50% waste diversion, however, since it is recognized that less-populated areas have greater barriers to cost-effective collection and marketing of recyclable materials. Each community is required to set a goal that suits its situation, provided that the goal is based on justified and sound reasoning. RCW 70.95.090 explicitly recognizes that different levels of collection service will be appropriate for urban and rural areas. The current (2002) statewide rate is 35%.

In May 2000, the Skagit County SWAC discussed the local goal for waste diversion, and agreed that the County's primary goal should be to show improvement each year. The eventual goal is to reach 50% waste diversion, but the primary focus should be on improving the quality of programs and steadily improving the waste diversion results each year (see also Recommendation #R1, Section 4.2.7).

3.3 WASTE REDUCTION

3.3.1 Definition of Waste Reduction

Activities and practices that reduce the amount of wastes that are created are classified as "waste reduction." Waste reduction differs from the other two waste diversion techniques (recycling and composting) because the other methods deal with wastes after the wastes have been generated. By definition (RCW 70.95.030), waste reduction also includes activities and practices that reduce the toxicity of wastes that are created, but these methods are discussed in other parts of this plan (see Section 9.12) and in the Skagit County Moderate Risk Waste Management Plan (SCS 1992).

Waste reduction is the highest priority for solid waste management according to RCW 70.95, and is preferred over recycling and composting because social, environmental and economic costs are typically lower for waste reduction methods. 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.

3.3.2 Background for Waste Reduction

The previous solid waste plan made a number of recommendations for waste reduction, and these are shown in Table 1.1 (see Recommendations #4-4 through 4-10 and 4-13 through 4-16).

3.3.3 Existing Waste Reduction Programs and Facilities

Several waste reduction activities and programs are currently conducted in Skagit County. These include a variety of public programs as well as personal and commercial efforts, with the latter two including a broad range of activities that are not well documented. Waste reduction could be shown to be handling significantly more waste if the personal and commercial efforts could be measured more completely. On the other hand, many of these activities are considered to be part of a "baseline" amount that may not count towards meeting future goals for additional waste diversion.

The public disposal facilities provide opportunities for reuse. At the Skagit County Recycling & Transfer Station (RTS), bikes, lawnmowers, and other functional items are set aside for one or two days for people to take, although these items are set aside only as time allows. A similar practice is conducted at the Sauk and Clear Lake drop box sites. No estimate is available as to the amount of products that are reused through these practices.

Reusable materials, including paints, garden chemicals, auto products, and other materials brought to the Household Hazardous Waste Collection Center are also set aside for people to take. In 2002, approximately 700 gallons of paint and about 225 gallons of other materials were reused this way.

Skagit River Steel & Recycling actively pursues reuse opportunities for the materials they receive for recycling. In addition to selling a wide range of metal parts and supplies, they sell fish net and other materials for reuse.

For construction and demolition (C&D) materials, there is a Waste Exchange attached to the County's website where people can post or search for items that are available or desired. There is also the Industrial Material Exchange (IMEX), and used goods stores in Ferndale and Bellingham (GR Plume, RE Store, and Robinson Recycled Building Materials). The SWAC and the County publish a brochure annually providing current information about these opportunities, and a copy of this is distributed with building permits.

Most of the shipping services in Skagit County accept styrofoam "peanuts," "bubble wrap" and other materials for reuse (see the current County brochure for information about these services).

Waste reduction through reuse is also accomplished by second-hand and thrift shops, garage sales, used bookstores, and through similar activities. Some of the charitable organizations provide collection services. Recently, various internet auction websites have grown in popularity. No estimates are available for the amount of goods handled through these methods.

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 electronic mail (email), increased double-sided copying and the replacement of old copiers that did not allow for this option, increased use of recycled paper, and avoiding non-recyclable packaging. The use of email further assists with waste reduction in some offices by providing a fast and convenient mechanism for an internal exchange of used furniture and other items.

An effective method of waste reduction is the composting of yard debris on the property where it was generated (typically called "backyard" or "on-site" composting). In Skagit County, this is addressed through demonstration gardens, workshops and other efforts (see also Section 3.4.2).

3.3.4 Service Gaps, Other Needs, and Opportunities in Waste Reduction

Reuse of building material (including both new opportunities and more publicity for existing opportunities) could be practiced more widely. The Waste Exchange attached to the County's website could be used more.

A significant need is to be able to measure the results of waste reduction activities. This would be desirable to demonstrate progress and monitor waste reduction results. Quantitative measurement of waste reduction is very difficult, however, and for most or all activities it is necessary to use other measures of success.

Additional opportunities exist to reduce the waste stream through rate structure changes, commercial education and assistance programs, public agency procurement policies, on-site composting programs, manufacturer responsibility requirements, and waste exchanges.

3.3.5 Waste Reduction Alternatives

Rate structures could be changed to increase the effectiveness of "volume-based rates," where households are charged significantly more for producing more garbage. This approach helps to encourage waste reduction as well as recycling. Businesses are generally 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. Although volume-based rates are already used throughout Skagit County, the use of a linear rate structure, with the cost of each additional can of garbage set at the same amount as the first can, has been shown to provide more incentive for waste reduction and recycling (SRM 1999).

The cities and Waste Management already use volume-based rates, however, and a linear rate structure would be difficult to implement. For Waste Management, the rates in the rural areas are controlled by the Washington Utilities and Transportation Commission (WUTC). State law and WUTC rules require that rates be based on cost-of-service calculations that prevent the use of a linear rate structure. An approach based on cost of service takes into account that part of the expense of providing service to each household is fixed and so is independent of the amount of waste set out. For the cities, several have attempted a linear rate structure in the past but had to cease this approach due to public opposition.

Additional waste reduction can be accomplished by encouraging the reuse of materials and products through barter/borrow boards, "reuse ranches," private efforts such as retail outlets, and other activities. The barter/borrow board involves residents and businesses offering items for barter or requesting to borrow infrequently used items. If the County provided space and forms for this, the initial cost would be about $5,000 (primarily for promotion) and annual operating expenses would be about $500. The idea of reuse ranches is already being practiced to some extent at the RTS and rural drop boxes, but this activity could be expanded. One option for expansion would be through a cooperative effort with Goodwill or other charities. Several counties in Washington are working with a charity to divert reusable materials through staffed trailers located prior to the entrance of a landfill or transfer station.

The idea of private retail outlets for reusable C&D materials, such as exist in Whatcom County, could be explored. Lumber and other wood products are materials that could be reused more. Additional efforts could also be made to promote the use of reused and recycled building products by homeowners and builders, such as the Used Building Materials Home Tour conducted in June 2000 in Whatcom County. This tour was sponsored by RE Store, a used building material store in Bellingham, with assistance from Ecology. The three-hour tour visited five homes to see many examples of reused building materials.

Measuring the overall results of waste reduction may not be possible, but quantities of a specific material could be monitored to test for waste prevention. Reductions in a material can also be estimated based on other measurements (such as the number of compost bins distributed and anticipated pounds of yard debris composted per household). Evaluating a waste prevention program could be based on whether planned activities are actually conducted and appear to be reaching the target number of people.

In addition to surveys, waste composition studies could be helpful in determining waste prevention results. Accomplishing this with any accuracy would require an extensive analysis of current (baseline) waste composition and then a similar effort to determine future waste composition to test for reductions in specific materials. A final possibility is that the US Environmental Protection Agency and some states are working to develop better waste prevention measurement methods, which may provide improved methods in the future.

3.3.6 Recommendations for Waste Reduction

The recommendations for waste reduction are:

WR1) Existing activities should be continued.

WR2) A measurement method is needed to determine the level of waste reduction, and the County should monitor progress on the development of such measurement methods on the State and Federal levels.

WR3) The County should promote the establishment of a local reusable building materials store.

3.3.7 Implementation Schedule/Costs and Monitoring/Evaluation Methods for Waste Reduction

The implementation of Recommendations #WR2 and #WR3 are contingent upon the hiring of a new Recycling Coordinator (see Recommendation #R3).

The County should attempt to develop a measurement method for waste reduction by December 2005. The measurement method should be employed annually thereafter, and periodically evaluated through comparison to State and other methodologies (if and when these become available).

Promoting the establishment of a local building materials reuse store will require some research by County staff as to the best methods for accomplishing this, but one activity that could help is to arrange a half-day seminar or meeting. This meeting should involve representatives of other reuse stores (in Whatcom County or the Seattle area), local builders, and other interested parties. This meeting would help explore the local potential for a reusable materials store and possibly generate interest. This meeting should be held in 2005 (i.e., shortly after the anticipated adoption of this CSWMP and the hiring of the new Recycling Coordinator). This meeting could be held jointly with a related event, or could be held at an event open to the general public and an educational component (promoting the use of recycled and reused building materials) could be included.

3.4 PUBLIC EDUCATION

3.4.1 Background for Public Education

The previous solid waste plan made a number of recommendations for public education, and these are shown in Table 1.1 (see Recommendations #4-1 through 4-3, 4-11, 4-12, 5-5, 11-6 and 11-7).

3.4.2 Existing Public Education Programs and Facilities

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 SWAC annually produces a brochure on C&D recycling opportunities.

The Recycling and Waste Reduction 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 and administers the Master Composter/Recycler and the Adopt-a-Road programs. A monthly column in the Skagit Valley Herald teaches readers about recycling, waste reduction, composting, and household hazardous waste.

In 2002, the Recycling and Waste Reduction Educator made 66 presentations to approximately 1,595 students at 19 different schools. These presentations were in addition to presentations given by two Master Composter/Recyclers at various schools where they have personal connections. A booth was staffed at 14 fairs and events where 1,673 contacts with the public were made. A total of six composting workshops were conducted in 2002, at which 66 participants learned how to turn waste into soil amendments. These workshops are advertised in all of the local newspapers.

The Master Composter/Recycler program provides an excellent opportunity for citizens to assist with waste diversion projects and help spread the word. Twenty-four Master Composter/Recyclers volunteered 424 hours in 2002. There was a training class for ten new Master Composter/Recyclers, who helped staff the Master Composter/Recyclers' booth at fairs and festivals, gave workshops, and maintained the four compost demonstration sites and worm recycling boxes. Most importantly, the Master Composter/Recyclers network within their communities and set an example for others.

The informational kiosks at the RTS and rural drop boxes were built in 1998 by the Public Works Special Operations crew. These kiosks were partially funded (60%) with Department of Ecology grant funds. They are decorated with colorful posters and informational bulletins on waste reduction topics. There are pamphlet holders on each board and these are kept stocked with pamphlets on recycling, composting and household hazardous waste. These kiosks continue to be a very useful way to offer waste reduction and other information to the public. Pamphlets and flyers for household hazardous waste are also distributed at city offices, and newspaper ads are occasionally run as well.

The compost demonstration sites are located at Discovery Garden and Padilla Bay Interpretive Center. These sites provide an excellent educational opportunity for backyard composting and related topics.

A library of books and videos about waste reduction and recycling has been gathered as a community resource. The materials are checked out to Master Composters/Recyclers, community groups, area schools, school children, college students, other individuals and the Padilla Bay Interpretive Center.

Waste Management includes recycling information in appropriate new customer packets, publishes annual calendars and provides other educational materials. In 1999, as part of regional effort involving NWAPA and haulers in Whatcom County, Waste Management spent $5,000 for printed materials and for radio and movie theatre ads supporting curbside programs. In addition, they hired a person in mid-2000 to promote C&D recycling services. The regional effort was designed to promote alternatives to burning of yard debris and construction wastes.

Activities conducted by the cities include an annual mailing by Mount Vernon, monthly tips by Burlington in the utilities newsletter, and quarterly and annual informational mailings by Anacortes.

In 2000 and 2001, a significant effort was put into a campaign against illegal dumping, including radio and other ads. Supplemental CPG funds (about $40,000) were used for this. In 2002, a significant effort was again put into a campaign against illegal dumping, including roadside pickup and media ads. Litter Grant funds (about $65,000) from Ecology were used for this.

3.4.3 Service Gaps, Other Needs, and Opportunities in Public Education

Public education is viewed as a high priority activity, and is an integral part of the solid waste system.

More publicity for existing waste diversion activities would improve the results of those programs. Education is critical to the success of any waste diversion program. To be effective, public education methods need to be tailored to specific groups and programs. More comprehensive education about waste diversion options for residents and businesses, including the availability and requirements for curbside recycling, is needed.

Several opportunities exist for public education activities (some of these are already in use), including:

- cooperative arrangements with the certificate hauler, cities and others to distribute information.
- educational materials on how waste diversion activities fit into broader issues, such as sustainability, global warming and preservation of salmon habitat.
- educational materials on costs/benefits of various waste reduction activities or methods.
- information on the fate of recycled materials and the benefits of purchasing recycled products.
- use of public access television.
- targeting special groups, such as businesses or legislators.
- efforts to address illegal dumping problems, including possible fines.

Garbage haulers are required by State law to distribute public education materials annually (Ch. 480-70-361(7) WAC). 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.

State law requires a program for monitoring commercial activities, although Federal law prevents any control over these activities. In Skagit County, monitoring commercial recycling activities is being accomplished 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.

3.4.4 Public Education Alternatives

City residents and businesses are required to subscribe to garbage collection in the four largest cities and can continue to be reached through utility bill messages and other mailings. Residents and businesses in other areas of Skagit County can also be kept informed through bill inserts, but this approach is less effective. Many residents in the unincorporated areas do not subscribe to garbage collection, and instead choose to self-haul their waste to the RTS or rural drop boxes. This group could be reached through materials posted and distributed at the waste disposal sites, or by direct mailings that go to everyone.

The cost-effectiveness of education programs is difficult to measure and evaluate. Indirect evaluation can be achieved through observations of waste and recycling volumes. Performance-based evaluations can be conducted based on the numbers of students, businesses, and service groups that receive information.

One of the special needs that can be addressed through public education is waste diversion programs in businesses. For businesses, a two-pronged approach could be used, by informing them of the options for reducing and recycling wastes, and to motivate them to begin these activities. Approaches that have worked well in other areas for motivating the businesses include special awards or other recognition programs (such as the EnviroStar program used by other counties).

3.4.5 Recommendations for Public Education

The recommendations for Public Education are:

PE1) Public education is an essential element of the solid waste management system, and the current level of effort must be maintained. The County should remain the lead agency for this activity, with assistance by the cities and private sector as appropriate.

PE2) The County, contingent on the hiring of a new Recycling Coordinator (see Recommendation #R3) and with assistance from the cities and private sector as appropriate, should investigate the potential for a local program patterned after the "EnviroStar" program used in other areas, to promote business involvement in waste diversion activities.

PE3) Public education activities discouraging illegal dumping need to be continued.

3.4.6 Implementation Schedule/Costs and Monitoring/Evaluation Methods for Public Education

The implementation of an EnviroStar-type program should be targeted for 2005, contingent on the timing for the hiring of a new Recycling Coordinator. Future monitoring and evaluation methods for this approach should include the number of businesses involved and other factors as appropriate to specific activities (for example, tonnages recycled or types of materials reused).

Education activities for illegal dumping need to be continued, including brochures, posters and other materials, at a cost of $5,000 to $10,000 per year. This campaign should be conducted annually. Should illegal dumping problems grow worse, and contingent upon the availability of funds, a stronger campaign could be conducted at some point in the future.

CHAPTER 4: RECYCLING

4.1 INTRODUCTION

The solid waste management activities discussed in this chapter are organized into two sections based on the method of collecting and processing the recyclable materials:

4.2 Source-Separation Recycling Programs
4.3 Mixed Waste Processing Options

Section 4.2 discusses recycling programs that are based on the separate collection of recyclable materials (i.e., separate from garbage), which is the method primarily used currently in Skagit County. Section 4.3 discusses alternative recycling programs that are based on processing garbage to remove the recyclable materials after collection.

4.2 SOURCE-SEPARATION RECYCLING PROGRAMS

4.2.1 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" (Ch. 173-350 WAC).

4.2.2 Background for Recycling

The previous solid waste plan made a number of recommendations for recycling, and these are shown in Table 1.1 (see Recommendations #5-1 through 5-4, 5-6, 5-9 through 5-18, and 11-1 through 11-7).

4.2.3 Existing Recycling Programs and Facilities

<u>Overview</u>

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

<u>Drop-Off and Buy-Back Programs</u>

The three public 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, motor oil, antifreeze, and car batteries. Appliances are accepted for

recycling for a fee of $10, or $25 if the appliance contains or ever contained freon (charges current as of 2003). The Skagit County Recycling and Transfer Station (RTS) also recovers metals from the tipping floor, as time allows and as needed for oversized materials.

Skagit River Steel and Recycling accepts the traditional recyclable materials (paper, glass, and plastic bottles) and appliances, and is currently charging a small handling fee for these materials. Skagit River Steel also purchases metals, and accepts drywall and several special or industrial materials for recycling.

Larry's Auto and Truck Parts accepts appliances and other metals, tires, and batteries for recycling. Other companies also accept appliances for recycling, and the County regularly publishes a list of the current companies that accept appliances and other metals for recycling.

Drop-off facilities for construction and demolition (C&D) wastes include several locations that accept drywall, concrete, asphalt and other C&D wastes. Facilities nearby (in Snohomish and Whatcom Counties) also recycle drywall and other C&D wastes. The SWAC and the County regularly publish a list of the companies that currently recycle C&D wastes.

Other drop-off opportunities include small household batteries and motor oil. In the City of Burlington, there is also a public drop-off site for newspaper and aluminum cans (at the high school).

Curbside Programs

The Cities of Burlington, Mount Vernon, and Sedro Woolley have curbside recycling programs through a contract with Waste Management. These cities pay Waste Management by the ton for materials collected. The City of Anacortes has a contract with Rabanco for curbside recycling service. In Anacortes, the definition used for residential accounts includes nursing homes, churches and non-profit organizations, and so these customers receive curbside recycling services too. The cost for the recycling services in these four cities is paid by fees collected by the cities through utility billings.

In the other towns and in the unincorporated areas west of Highway 9, residents and businesses have the option of subscribing to recycling services provided by Waste Management, whether they are garbage collection customers or not. The cost for this service was $2.50 per month through 2001, but was increased to $6.50 per month in 2002 based on a new financial analysis for the cost of this service.

The curbside programs in Skagit County collect newspaper, cardboard, mixed waste paper, aluminum and tin cans, glass containers, #1 plastic bottles, and #2 ("natural" HDPE only) plastic bottles. Materials were previously collected in two containers, with cans and bottles placed in one bin and the paper materials in another bin, but the municipal programs in Skagit County have recently switched to "single-stream" collection. Single-stream collection is where all materials are placed into one container, and processing facilities perform the separation. 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 (communication, incentive, tenant turnover, etc.).

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 and others. 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.

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.

As noted in Section 3.4.3, 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, especially Chinook Enterprises, endeavor to recycle a portion of the materials they pick up, as time and the condition of the materials (bottles, cans and metals) permits.

Electronics have been getting increased attention as a material that should be recycled due to disposal problems. Cathode ray tubes (or CRT's, such as found in televisions and computer monitors) contain a significant amount of lead in the glass. The circuit boards in computer base units and other products contain other heavy metals and possible contaminants. There is a growing concern that these toxic materials may leach from electronics placed in landfills and cause groundwater pollution, and as of mid-2003 four states (California, Maine, Massachusetts and Minnesota) have banned CRT's from landfills. In response to these issues, several options have been developed to promote recycling of electronics instead. One of these options includes a local company, Oasys, Inc (Mount Vernon) that will accept computers, televisions and other electronics for a fee. The intrinsic value of these products is not great enough to cover the cost of recycling, so most places do charge for accepting these products. Other options for electronics include various

drop-off programs by several other private companies in Western Washington; occasional collection events subsidized by municipalities (none in Skagit County as of yet); and efforts to develop a system for manufacturers to take back old equipment.

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 the State's information hotline (1-800-RECYCLE).

Processing

Skagit River Steel and Recycling is the primary processing facility for recyclable materials collected in the County, including materials collected through their own efforts, at the County's disposal facilities and brought in by a variety of customers. The materials collected by Waste Management are transported to a material processing facility (MRF) in Woodinville. The materials collected by Rabanco are transported to a MRF in Seattle. Other processing facilities in the County include Larry's Auto, Concrete Nor'West, and Meridian Aggregates. Other processing facilities that handle a portion of the materials collected in Skagit County but that are located outside of the County include NW Recycling in Bellingham, Quilceda and others in Snohomish County, and metals processing facilities in Canada, Seattle, Tacoma, Portland and other places.

4.2.4 Market Analysis and Designation of Recyclable Materials

State guidelines require that solid waste management plans contain a market analysis and a list of materials designated for all basic recycling programs.

Market Analysis

The current and future markets for recyclable materials is a key consideration in evaluating the need for additional recycling activities and their cost-effectiveness, but these are difficult to address in a long-range planning document such as this CSWMP. Markets for most recyclable materials constantly fluctuate, thus quickly rendering any market analysis obsolete. These fluctuations are caused by many different factors, including the economy in general, prices of virgin and other competing feedstocks, supply and demand locally and abroad, and other factors.

Two current market trends that are noteworthy are China's demand for several materials and the switch to single-stream collection. China is currently building up the country's infrastructure and also gearing up consumer products manufacturing capabilities. Paper and steel mills have recently been purchased and moved to China, although it will take a few years to install and make these operational. In the meantime, Chinese demand for steel, paper and plastics has already become a huge market force, and this demand is expected to continue to grow.

Single-stream collection has affected the markets differently for fiber and non-fiber materials. For non-fiber materials (glass, plastic bottles and cans), the processing plants for mixed materials in the Pacific Northwest are not able to separate these as effectively as previous collection and processing systems, and so there appears to have been a net reduction in the amount of glass, plastic and cans that are being recycled. In other words, there is a growing body of evidence that the increase in participation that may be resulting from increased convenience is being more than offset by losses of recyclables in the processing system. These losses are typically caused by the materials being

carried along with the fiber products, and paper mills are reporting that they are receiving more glass and other materials with the paper. Single-stream collection and processing is also not able to separate the fiber products (cardboard, newspaper and mixed paper) as effectively, and so more paper is being marketed as mixed or lower grades. At paper mills, the wrong grades of paper (paper of a different type than what the mill is designed for) are only partially recycled, with the remainder becoming a waste (along with any glass, cans and plastic mixed in the paper).

Additional information about markets is provided below by commodity type, although "markets" should not be confused with the "commodities." A variety of existing and potential markets are possible for each commodity and in some cases recyclable materials can compete with each other for a specific market.

Paper: Market forces for the different grades of paper are similar in many ways, although prices for the various grades fluctuate separately in response to different factors such as market demand for the finished product. All grades of paper are affected by the presence or absence of capacity at paper mills for using recycled paper. This capacity is often dedicated to either recycled paper or virgin wood chips because of the different processing systems required for each of these. Since the capacity of a mill is the result of millions of dollars worth of investments, the capacity to use recycled paper is built or expanded based on cautious projections of supply and demand for the finished product(s). For some paper grades, such as office paper, these projections are the result of anticipated consumer demand. In this way, public and private procurement policies can encourage higher prices for the finer grades of paper collected for recycling. For other paper grades, such as cardboard, consumer demand is less of an issue than broader economic factors that affect demand for new boxes or that affect prices of competing feedstocks.

Plastic Bottles: The market value of recycled plastic is largely influenced by competition with virgin materials. The willingness of plastic manufacturers to use recycled materials in production is also hindered by concerns about product quality, but the price that they are willing to pay for recycled materials is always tightly tied to the fluctuating prices of virgin plastic resins. Recent developments in new markets and a strong global demand for plastics in general benefit plastics recycling, but the recycling rate has decreased in recent years because recycling has not been able to keep up with the growing number of plastic bottles being used for various new products.

Metals: Market prices for metals vary widely, but supply usually matches demand better than for other recyclable materials. This is possible because metals are more easily stockpiled throughout the system (i.e., at the point of generation, processing centers, mills, and brokers' facilities), whereas other materials are more difficult and expensive to store. The supply of other materials is also more difficult to control, because with materials that are being collected through curbside or commercial recycling programs it is much more difficult to "turn off the spigot". For metals, lower prices generally mean significant reductions in the amount being brought to markets. Lower prices are typically a symptom of economic changes, such as reduced construction activity leading to reduced demand for steel.

Glass: The markets for brown and clear glass bottles are stable, although somewhat lackluster. The market demand for green glass is poor, and is influenced by imports from other countries. It is not the import of a raw material that causes a problem for green glass, however, but the import of finished products (the green glass containers that hold imported beverages such as bottled water and beer) that lead to a surplus of green glass. The other half of this problem is the lack of local demand for new green glass bottles. There is little demand in this region for green glass bottles, because few products that are bottled in this area use green glass, hence more green glass is collected for recycling than is needed for new bottles.

Other applications could be used for recycled glass, such as filter and drainage materials, sand substitutes, construction aggregate, and a variety of other products for house and garden (WSRA 2000). Many of these could be manufactured locally and would be immune to color differences. Developing these applications may require an investment in grinders or other equipment.

Tires: Tires are a continuing problem for recycling. Many of the previous collection and processing methods have faded out due to the expiration of a State tax several years ago that helped fund these efforts, although tire distributors and service stations are apparently doing a better job of collecting tires for shipment to the few remaining markets. Illegal disposal is also a continuing problem, and tire piles continue to plague some areas.

A large part of the problem with tire recycling is the technical difficulties in "closing the loop" for this material. Efforts to re-process tires back into a rubber product that could be used to manufacture new tires and other products have generally met with high costs and other problems. Even low-value uses for tires such as incineration (tires contain significant fuel value) are hindered by several factors (such as steel content, air pollution, and supply and processing difficulties).

Designated Materials

The materials commonly collected for recycling are chosen based on the availability of markets, the ability to cost-effectively collect substantial quantities, and other factors. The following materials are commonly collected for recycling in Skagit County:

Newspaper
Cardboard
Office paper, according to current market specifications
Mixed waste paper, according to current market specifications
Magazines and catalogs
Metals, including ferrous and non-ferrous scrap, tin cans and appliances
Aluminum cans and foil
Glass containers
PET soda bottles, HDPE milk bottles, plastic film, and other plastics as markets allow
Wood, drywall, concrete and asphalt
Motor oil, antifreeze and car batteries
Yard debris (see Chapter 5)

The above list is the "designated recyclable materials" required by State planning guidelines, and this list should be used for guidance as to the materials to be recycled in the future when possible. 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.
- other conditions not anticipated at this time.

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, minor changes in the list could be adopted without formally amending the CSWMP. 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 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 CSWMP would be required (a process that could take 120 days or longer to complete).

4.2.5 Service Gaps, Other Needs, and Opportunities in Recycling

Revenue-Sharing Agreements

A recent addition to State law (RCW 81.77.185) allows waste collection companies to retain up to 30% of the market revenues they receive for recyclables collected in the certificate areas. This new provision was adopted to encourage further investments in recycling and to provide motivation for increased recycling, whereas previously all market revenues were required to be used to offset expenses in the calculation of permissible rates and so certificate haulers had less incentive to maximize recycling. To implement this system, a proposal must be developed by the collection company and county, then submitted to the WUTC for approval. The county (or, in rare cases, the city, if the city has their own solid waste plan) must certify that the proposal is consistent with their solid waste management plan. The proposal must demonstrate how the retained revenues will be used to increase recycling. As of late 2003, only one such agreement (between King County and Waste Management) had been approved.

Service Gaps

Through discussions with public and private representatives in the County, and other research on local programs, the following service gaps were identified:

- curbside recycling in the remaining rural areas (especially Alger and upriver areas, but subject to specific criteria).
- recycling of specific materials, including electronics (and reuse), styrenes, textiles, carpet, roofing and other C&D wastes, other plastics (besides #1 and #2 natural bottles, including other #2 bottles and tubs), and food wastes.
- new materials could be added to curbside programs, such as motor oil.
- commercial recycling services are available but businesses could be recycling more.
- apartment recycling programs suffer from lack of incentive for tenants to participate, need bilingual public education materials, and need separation of garbage and recycling containers to avoid contamination of recyclables (but adequate space for this is often a problem).
- participation rates in existing curbside recycling programs could be better, especially in rural areas.
- curbside recycling services could be more easily provided to unincorporated areas near the four large cities if Waste Management could service them with the same trucks/routes as the cities, but they can't mingle materials due to accountability needed for tonnage payments.

For rural areas of the County, there is occasionally some demand for recycling services in areas that currently do not receive this service, but at this time there is no mechanism for determining which areas should receive service. Servicing one or two accounts in an area apart from other routes is a costly endeavor, yet Waste Management is not allowed to charge more than the approved rate (currently $6.50 per month).

Urban-Rural Designation

State planning guidelines (Ecology 1999) 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 important because these 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. The State planning guidelines suggest that the criteria to be used in designating urban and rural areas could include population growth, densities of commercial properties, geographic boundaries, transportation corridors, existing urban growth boundaries determined through comprehensive land use plans, other utilities and services associated with urban areas, and/or other factors.

In this case, Skagit County's Comprehensive Plan provides a good, 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 CSWMP. Recycling and other services may need to be implemented or adjusted based on these changes, and this should be accomplished within 90 days of the adoption of the changes to the Comprehensive Plan.

The responsible party for implementing any changes in recycling or other services will depend on the hauler or city that is responsible for garbage collection in the affected area (for instance, in newly-annexed areas the certificated hauler would be responsible for providing the appropriate level of service for a minimum of seven years, or until the city assumes responsibility for garbage collection in the area).

Other Needs and Opportunities

Long-term market stability may be a problem for some materials. Prices for most materials can be expected to fluctuate in the future due to competition with raw materials and other economic factors. The quantity and quality of recycled material also influences market access and price. Local markets for recyclable materials may provide a better and potentially more stable outlet for collected materials, while also improving the local economy.

Sudden changes in recycling programs have been a problem in Skagit County and other areas. In order to provide an orderly transition and avoid discouraging participation in recycling programs, it is very important to publicize any significant changes in recycling programs well before the change takes place. Significant changes include set-out requirements, cost of service, materials recycled, frequency of collections and other aspects.

4.2.6 Alternatives for Recycling

There are a number of options for collecting increased amounts of recyclable materials, including both new methods and existing methods that could be expanded:

- additional or expanded curbside recycling programs (with mandatory or voluntary provisions).
- a service level ordinance could be adopted to allow recycling costs to be spread over all customers in the rural areas, or adoption of minimum service levels in this CSWMP could achieve the same effect.
- increased financial incentives through volume-based rates and incentive rates (see Chapter 6).
- additional or expanded commercial recycling programs (collections or drop-off centers).
- additional drop-off and buy-back centers (publicly or privately operated, with or without buy-back of some materials).
- material recovery facilities (private or public, with varying degrees of capacity to handle mixed waste or recyclables).
- co-collection of garbage and recycling (see Section 6.2.4).
- various approaches for single-stream, commingled or source-separated programs.
- additional collection of C&D wastes.

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 2.7 indicates that 11.1% of the County's waste stream is wood and construction debris, although more recent data for other counties shows this figure in the range of 16 to 17%. Brochures on recycling opportunities for C&D wastes are currently distributed with building permits when the permit is issued, but it appears that more could be done to promote recycling of this waste.

4.2.7 Recommendations for Recycling

The recommendations for recycling are (see also Recommendation #WC3):

R1) Skagit County's waste diversion goal (including waste reduction, recycling and composting) should be to show continued improvement each year in programs and the recycling rate, with an eventual goal of 50% waste diversion (waste reduction, recycling and composting). To reach this goal, the service gaps shown in Section 4.2.5 will need to be addressed.

R2) Urban service areas for recycling 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 (see Table 6.2).

R3) In order to avoid diverting existing staff from their current responsibilities, the County should hire a Recycling Coordinator, on at least a part-time basis, to assist with the implementation of the recycling and other waste diversion recommendations.

4.2.8 Implementation Schedule/Costs and Monitoring/Evaluation Methods for Recycling

Achieving continuous progress and results in the County's waste diversion programs is an ongoing activity. Progress towards this goal should be monitored using data on recycling and composting

levels from Ecology, supplemented by waste reduction measurements and other local data as needed and available.

Implementing urban levels of service in new UGAs should be conducted on an "as needed" basis, as new UGAs are approved. Actual implementation details will vary depending on existing levels of services, and monitoring and evaluation methods will also vary. Implementation of rural services should also be conducted on an ongoing basis, but certificate areas west of Highway 9 should begin receiving any missing services within one year of the adoption of this CSWMP (see also Table 6.2, Figure 6.1, and other information in Chapter 6).

A new staff person, the Recycling Coordinator, should be hired in 2005. Several of the other recommendations are contingent on the hiring of this person, including:

- WR2 - determining a measurement technique for waste reduction.
- WR3 - promoting the establishment of a reusable building materials store.
- PE2 - investigating the potential for an "EnviroStar" or similar program to promote business waste reduction and recycling.
- S4 - recognition program for contractors with history of proper disposal practices.
- S9 - encouraging recycling of inert wastes.

In addition, the accuracy and timeliness of tracking progress towards meeting the County's waste reduction, recycling and composting goal (Recommendation #R1) could be greatly improved with a dedicated Recycling Coordinator.

4.3 MIXED WASTE PROCESSING OPTIONS

4.3.1 Definition of Mixed Waste Processing

Mixed waste processing systems range in complexity from simple "dump and pick" operations to highly mechanized facilities.

Dump and Pick

With dump and pick operations, recovery is typically limited to larger items that are easily removed (such as cardboard boxes and scrap metal). In this case, the disposal facility must have a tipping floor to allow loads of waste to be dumped out of collection vehicles onto a flat surface, ideally with space to spread out each load to allow access to all sides of it. Other requirements include additional labor to pull out materials plus containers for both temporary and long-term storage of the recovered materials. A forklift and other equipment are also necessary for moving and emptying the containers used for temporary storage. Dump and pick operations may create a situation where workers have extensive contact with raw garbage, with the subsequent risks to their health, and may lead to back injuries due to the poor ergonomic conditions typically present.

Pursuing the idea of a dump and pick operation would require a careful examination of the operational issues for the various options, as well as examining the overall feasibility (particularly on a cost-benefit basis). The results of this examination may be different for a private facility versus a public facility, but in general the operational issues for a dump and pick operation include:

Tipping Floor: Significant remodeling would be needed at the Skagit County Recycling & Transfer Station (RTS) to provide space for a dump and pick operation. If a new private or public

facility is used, the tipping floor will need to be designed and constructed to provide extra space on the tipping floor.

Staffing: The operation would require more staff on-site at the RTS or other facility. Whether at a public or private facility, however, these staff could be employees of a private company.

Proceeds: Materials removed from the waste stream could be given away or sold. Any revenues could be used to offset the costs of this activity. Another option would be to contract the recovery operation to a private entity and allow that entity to keep any profits, in which case some benefit would still be derived from avoided disposal fees.

Liability: Issues of liability, insurance and associated costs would need to be addressed prior to establishing a dump and pick operation. Back injuries and other problems can be an issue for dump and pick operations.

Effectiveness: The ability to recover materials from mixed waste is limited, especially in areas where recyclable materials are already being diverted by source separation programs. Dump-and-pick operations often resort to recovery of only the larger materials (wood, sheetrock and metals) due to the high cost of recovering the smaller materials (bottles and cans) in this way, and also due to the fact that only about one-third of the smaller materials are still marketable after being mixed with garbage.

Mechanized Waste Processing

Mechanized waste processing requires a facility or system that is designed to accept garbage and process it to remove the recyclable materials. Processing typically includes a combination of mechanical systems, which are effective at removing only certain materials, and manual sorting. Mechanized waste processing could be used in place of source separation, although often it is used in addition to traditional recycling programs to remove materials remaining in the waste stream. Mechanized waste processing could also be used with a co-collection program, where recyclables are placed in a special bag that is then recovered at a central facility.

A typical mixed waste processing facility of this type might include a tipping floor for removing bulky and other non-processible materials, trommel screens (a rotating drum with one or more sizes of holes in the side) and/or air classifiers for the initial separation of waste components, a picking line for manually removing materials, magnets for removal of tin cans and ferrous metals, and conveyors to link these elements together. The materials recovered from this type of facility may be lower in quality (dirtier) than source-separated recyclables, and the cost-effectiveness of this approach in other areas has often relied on the availability of a waste-to-energy plant to purchase the light fraction (paper and plastic) as a fuel.

Mixed waste processing can be an expensive and risky approach for recovering recyclable materials, and so it is usually not pursued unless there is a strong mandate for increased recycling or very high disposal fees (i.e., a high potential for avoided disposal costs). If part of the facility or equipment is already available, however, then mixed waste processing may be more feasible.

4.3.2 Existing Mixed Waste Processing Programs and Facilities

Currently the only activity in Skagit County that qualifies as mixed waste processing is the removal of metals from the tipping area of the Skagit County Recycling and Transfer Station (discussed in Section 4.2.3).

4.3.3 Service Gaps, Other Needs, and Opportunities in Mixed Waste Processing

The only significant service gap identified at this time is the possible need for a processing facility for commingled C&D, although a dump and pick or similar waste processing system could also be considered as a possible opportunity to recover more recyclable materials from "regular" garbage.

4.3.4 Alternatives for Mixed Waste Processing

Data from waste composition studies in other areas indicates that between one-third and one-half of the waste stream is recyclable materials, although not all of this material could be recovered by a waste processing system due to contamination. In other words, materials removed from mixed garbage are often too dirty to be marketed as recyclable. Reusable materials could also be recovered from mixed waste. Data from a waste composition study conducted for Snohomish County (GS 1998) shows that the waste stream for that county contains 3.7% (by weight) of reusable materials (materials that could be directly used for their original purpose). Data from a similar study for Thurston County (GS 2000a) shows that the amount of recoverable materials in the waste stream (i.e., the recyclable materials that have not been rendered un-marketable after being mixed with garbage) is only about one-third of the total amount of disposed recyclables, or about 9.1% of the waste stream in the case of Thurston County.

4.3.6 Recommendations for Mixed Waste Processing

R4) Any proposals for mixed waste processing should be considered cautiously due to the history of problems and failures that have occurred with this technology. Such proposals would be subject to normal permitting requirements and compatibility with the System Policy shown in Section 7.2.3.

4.3.7 Implementation Schedule/Costs and Monitoring/Evaluation Methods for Mixed Waste Processing

The recommendation shown above can only be addressed at a later date if and when any proposals are made for mixed waste processing projects.

CHAPTER 5: COMPOSTING

5.1 INTRODUCTION

The solid waste management activities discussed in this chapter are organized into three sections based on the type of material to be composted:

5.3 Yard Debris Composting Programs
5.4 Food Waste Composting Options
5.5 Solid Waste Composting Options

Section 5.2 discusses current activities and potential options for composting yard debris. Sections 5.3 and 5.4 discuss the potential for new programs to divert food waste and to compost mixed garbage, respectively.

5.2 YARD DEBRIS COMPOSTING PROGRAMS

5.2.1 Definition of Composting

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.

In this CSWMP, yard debris is defined to include materials such as lawn clippings, leaves, weeds, vegetable garden debris, branches (under four 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.

5.2.2 Background for Yard Debris Composting

The previous solid waste plan made a number of recommendations for composting, and these are shown in Table 1.1 (see Recommendations #5-7 and 5-8).

5.2.3 Existing Yard Debris Composting Programs and Facilities

Overview

Most of the composting in Skagit County is conducted by private companies, although the County's Recycling and Waste Reduction Educator conducts a substantial amount of education and promotion for backyard and other composting. The following information provides an overview of current activities (current at the time this CSWMP was developed), but brochures and other information available from the County and cities provide a more up-to-date source of information on specific companies and other details.

Several cities in Skagit County have banned yard debris disposal, and encourage the use of other options instead. Burning of yard debris has also been banned by State rules (WAC 173-425 and RCW 70.94), as implemented by the Northwest Air Pollution Authority (NWAPA Section 501.8).

Drop-Off Sites

Drop-off sites serve as a collection point and then transfer yard debris and other materials to another facility for processing (composting). Private drop-off sites currently operate in Mount Vernon and several other locations. Public sites (for residents only) are operated by the Cities of Mount Vernon, Burlington and Sedro Woolley. The Skagit County Recycling and Transfer Station (RTS) also accepts yard debris. These sites accept various materials, depending on the site, such as yard debris, branches, stumps, untreated wood, and sod.

Curbside/Mobile Services

Waste Management conducts curbside collection of yard debris in Anacortes, Mount Vernon, and Sedro Woolley through a contract with those cities, and also offers this service in parts of the rural area. Service is provided with a 96-gallon toter, which is picked up once per week March through November, then once per month in December, January and February. The rates for this service are $8.50 per month for March through November and $3.50 per month for the other three months in Anacortes, $7.25 and $3.50 in Burlington, $7.20 and $3.50 in Mount Vernon, and $8.50 and $3.50 in Sedro Woolley (rates current as of 2003).

A number of private companies conduct collections for pallets and clean wood, although these materials are often used for energy recovery and are not composted, and there are also several services that perform on-site stump grinding and related activities.

Processing Facilities

Processing facilities generally require a permit to operate, although not if the facility is only grinding clean wood. Processing facilities in Skagit County include several private operations and one municipal facility operated by the City of LaConner. These sites process various materials, including yard debris, brush, stumps, pallets, clean wood, agricultural and food wastes (animal manure, dead chickens and crab shells), and, in the case of the LaConner facility, biosolids. In some cases, the wood handled by these facilities is being ground for sale to the co-generation plant in Everett, an activity that does not meet the definition for composting or recycling.

Backyard Composting

Rural residents appear to be disposing of only small amounts of yard debris, and are likely instead using backyard composting or drop-off sites for yard debris.

5.2.4 Service Gaps, Other Needs, and Opportunities in Yard Debris Composting

There is some interest in additional yard debris collection in the remaining cities and in rural areas. Criteria should be established to guide the implementation of these services. The State has adopted

a goal of eliminating "residential or commercial yard debris from landfills by 2012 in those areas where alternatives to disposal are readily available and effective" (RCW 70.95.010 (10)).

The amount of yard debris remaining in the County's waste stream is not precisely known, but it can be assumed that there is more material that could be composted. The available waste composition data (see Table 2.4) indicates that 6.9% of the County's waste stream, or about 6,000 tons per year, is yard debris. This is an area where the waste composition data is especially suspect, however, because it does not address the increases in composting that have occurred since the data was collected ten years ago and the disposal bans that have been enacted in some areas. More recent studies in other counties indicate that a figure of about 3.0% yard debris (or about 2,600 tons per year in Skagit County) is more typical (GS 2000b).

A potential opportunity is the increased amount of yard debris that will become available when a burn ban becomes effective December 31, 2006 for additional areas of the County, including the Cities of Concrete, Hamilton, LaConner, and Lyman, UGAs, and unincorporated areas with population densities in excess of 1,000 people per square mile. Currently, no construction waste, demolition waste or garbage can be burned in any area of the County.

Public education is an ongoing need to maintain the current successes as well as increase the amounts of material diverted to composting. Especially when the burn ban becomes effective in the additional areas, it will be important to educate people on the possible options for yard debris.

Local markets have been proven to exist for compost, but if the amount of compost increases significantly, then market development efforts may be necessary to avoid a surplus.

5.2.5 Alternatives for Yard Debris Composting

The processing capacity in Skagit County is currently adequate, so the alternatives examined in this CSWMP focus on collection. There are three methods for collecting yard debris for composting:

Curbside Collection

Curbside collection is the monthly, biweekly or weekly collection of yard debris from the point of generation (homes and businesses). Businesses may or may not be included, but are often not included because many are not significant generators of yard debris. An option for curbside collection is co-collection of yard debris with garbage (see discussion of co-collection in Section 6.2.4).

Drop-Off Sites

Drop-off sites can be located at public facilities (such as public works facilities), disposal sites, or related private operations (such as garden stores and nurseries). At disposal sites, separate areas or containers can be provided for dumping yard debris. The public is often offered discounted fees as an incentive for dropping off clean yard debris. At other locations, collection equipment varies but 40-yard roll-off boxes can be used. When full, these containers can be hauled to a yard debris composting facility.

Mobile or Temporary Drop Sites

Mobile or temporary drop sites most often take the form of collection days for yard debris at advertised locations (usually on a regular rotation and staffed) where citizens bring their yard debris and are able to drop it off for little or no fee. The collection equipment can again be 40-yard roll-off boxes that are hauled to a yard debris processing facility when full, but some areas have also used garbage trucks for this purpose.

5.2.6 Recommendations for Yard Debris Composting

The recommendations for yard debris composting are (see also Recommendation #WC3):

C1) Curbside yard debris collection should be offered in all UGAs and in the rural areas west of Highway 9.

5.2.7 Implementation Schedule/Costs and Monitoring/Evaluation Methods for Yard Debris Composting

Curbside yard debris collection should be available in the UGAs and rural areas west of Highway 9 by December 2005, with monitoring and evaluation as appropriate by Waste Management and SWAC.

5.3 FOOD WASTE COMPOSTING OPTIONS

5.3.1 Definition of Food Waste Composting

Food waste could also be a candidate for composting. There is increasing interest in food waste composting throughout the United States. A national survey found 138 facilities composting food residuals plus over 200 more on-site projects to handle food waste at a generator's site (BioCycle 2000). This survey also found that most of these projects were targeting the heavy concentrations of food waste found at institutional and "industrial" (food processing) sources.

5.3.2 Existing Food Waste Composting Programs and Facilities

There is currently only a limited amount of activity in composting or recycling food waste in Skagit County. Some discards from grocery stores and dairy products (spoiled or otherwise below standards for human consumption) are used for animal feed. A small amount of food wastes from residential sources are being handled through backyard composting and worm bins.

Several new programs for food waste composting have begun in other parts of Puget Sound. The City of Kirkland added food waste to the city's yard debris collections in late 2003, and Redmond and Bellevue are expected to do the same in the spring of 2004. Several commercial and institutional facilities have recently constructed food waste composting operations, including Seattle University and Evergreen State College, or are using "off-the-shelf" systems such as Earth Tub or BioStack. The Washington Department of Corrections has constructed a food waste composting facility at the Olympic Corrections Center in Forks, and is planning to construct

composting facilities at two more facilities. The City of Tacoma has been collecting a small amount of food waste with their yard debris for several years.

5.3.3 Service Gaps, Other Needs, and Opportunities in Food Waste Composting

As other materials are diverted from the waste stream, food waste increasingly becomes one of the most prevalent materials left in the waste stream. As indicated in Table 2.7, approximately 12.5% of Skagit County's waste stream, or 10,800 tons per year, is food waste. More recent data from a statewide study (GS 2003) shows food waste to be 15.5% of the State's waste stream. Composting a portion of this would help the County meet its waste diversion goal.

5.3.4 Alternatives for Food Waste Composting

It is possible that food waste could be included in the mix that is processed at the compost facilities, although the high moisture of this material would lead to a greater demand for bulking agents such as woody yard debris. Other potential problems associated with large-scale food waste could include odors, vectors (insects and other vermin), and end-product marketability issues. Many of these problems would be eliminated by targeting only pre-consumer vegetative wastes, such as vegetables from grocery stores, although there are also many successful programs handling post-consumer materials. A recent waste composition study shows that wastes from grocery stores contain 48% food waste (GS 2000b). Co-collecting food waste with yard debris and/or paper (compostable grades of paper include pizza boxes, napkins and other materials that can't easily be recycled otherwise) helps absorb the moisture and odors from the food waste, and this approach is being used in several areas of King County.

5.3.5 Recommendations for Food Waste Composting

The following recommendations are made for food waste composting:

C2) The County Recycling and Waste Reduction Educator should continue offering educational materials about home composting of food waste.

C3) Any proposals for food waste composting should be considered, subject to normal permitting requirements and compatibility with the System Policy shown in Section 7.2.3.

5.3.6 Implementation Schedule/Costs and Monitoring/Evaluation Methods for Food Waste Composting

The first recommendation shown above is an ongoing activity that has already been incorporated into existing budgets and staff workloads.

The second recommendation shown above can only be addressed at a later date if and when any proposals are made for food waste projects. Any such proposals should address cost, schedule and monitoring methods.

5.4 SOLID WASTE COMPOSTING OPTIONS

5.4.1 Definition of Solid Waste Composting

A third possibility for composting is to process mixed solid waste to remove non-degradable items and compost the remainder. According to a recent report (BioCycle 2003), there are ten solid waste composting facilities currently in operation in the U.S. Evidence of the difficulty in implementing this technology is provided by the lack of growth and numerous plant closures. There were 16 plants in operation in 2000 and 19 plants operating in 1999, versus the ten operating currently. This technology is more widely used in Europe, where there are many more facilities that have operated successfully for several years.

There are various options for solid waste composting. In the simplest case, this method can be used for organic-rich waste streams from specific types of commercial waste generators. In the most capital-intensive option, a solid waste composting facility could handle the County's entire waste stream and would include more shredding or grinding of the incoming waste and more emphasis on removal of physical and chemical contaminants such as plastics and batteries. Screening and other processing after composting is also required, and these processing steps create a residue that requires landfill disposal. The actual composting step may take place in an enclosed system, a trough that is open on top, or a variety of pile configurations.

The success of solid waste composting depends on the markets available for the end product and the cost of alternative disposal methods. Even in the best case, however, the finished compost typically has much more limited applications than yard debris compost. Solid waste compost usually contains small bits of plastic and pieces of glass, since these do not break down in the composting process and even intensive shredding will only reduce them to a degree. These materials detract from the visual appearance of the compost and may cause potential customers to reject it. Concentrations of metals and other contaminants may also be a limiting factor in determining where and how the compost can be used. Hence, applications for solid waste compost are less likely to be found in urban locations, and this approach typically relies on agricultural applications. Forestry applications are also a possibility.

5.4.2 Existing Solid Waste Composting Programs and Facilities

There are no programs for solid waste composting currently active in Skagit County.

5.4.3 Service Gaps, Other Needs, and Opportunities in Solid Waste Composting

There are no service gaps or opportunities that have been specifically identified in support of solid waste composting, although the increased diversion created would help meet the County's goal for recycling. In the case of this technology, however, this increase in diversion would be relatively expensive, as the capital-intensive facility required for this approach causes a relatively high cost per ton for the materials recovered.

5.4.4 Recommendations for Solid Waste Composting

The following recommendation is made for solid waste composting:

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. Such proposals would be subject to normal permitting requirements and compatibility with the System Policy shown in Section 7.2.3.

5.4.5 Implementation Schedule/Costs and Monitoring/Evaluation Methods for Food Waste Composting

The recommendation shown above can only be addressed at a later date if and when any proposals are made for mixed waste processing projects.

CHAPTER 6: WASTE COLLECTION

6.1 INTRODUCTION

The solid waste management activities discussed in this chapter are presented in one section:

6.2 Solid Waste Collection

6.2 SOLID WASTE COLLECTION

6.2.1 Background for Solid Waste Collection

The previous solid waste plan made a number of recommendations regarding waste collection activities, and these are shown in Table 1.1 (see Recommendations #8-1 through 8-6, 4-8, and 5-10). Several of these recommendations have been implemented, but several others, primarily having to do with rates and incentives, have not been implemented.

6.2.2 Existing Conditions for Solid Waste Collection

Two types of waste collection systems exist in Skagit County: municipal programs operated by three of the largest cities, and waste collection services offered by a private hauler 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 rural disposal sites.

Municipal Collection Services

Three of the largest cities (Anacortes, Mount Vernon and Sedro Woolley) provide garbage collection services to their residents and businesses with their own equipment and personnel. The City of Burlington also used to do this but Burlington privatized their system effective April 2004. These four 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 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 by local stores, with the cost of collection included in the bag price. The City of Burlington also sells pre-paid bags.

Sedro Woolley implemented a semi-automated system for their waste collections in mid-2001. This system employs a collection truck with a grappling arm or lifter on the side, and special garbage cans (toters) that are wheeled over to the truck and then mechanically lifted and emptied.

In 2002, the City of Mount Vernon implemented an automated/semi-automated collection system for residential and light commercial customers. Some customers are serviced with a truck that has a grappling arm that grabs and empties a city-issued cart without the driver leaving the truck. Other trucks are outfitted with hydraulic tipping plates, and collectors manually wheel the cart to the truck to be emptied. The carts are available in three different sizes to match the City's current system of volume-based rates.

Table 6.1. Collection Rates in Skagit County.

Area	Population Density[1]	Residential Collection Rates[2]				Commercial Collection Rates[3]		
		Mini-can	1 can (32 gal)	2 cans	Recycling	1 yard/wk	2 yards/wk	4 yards/wk
Municipal Programs:								
Anacortes	1,110	$7.00	$13.00	$23.00	$3.00	$92.00 (1.5 yd.)	$113.00	$155.00 (3 yd)
Mount Vernon	2,320	$7.56	$15.12	$27.24	$2.25	$63.00	$100.80	$174.60
Sedro Woolley	2,405	$6.00	$12.93	$19.53	$2.25	$68.20	$92.40	$184.80
Waste Management Service Area[4]	27.5	$11.40	$13.20	$19.80	$6.50	$50.66	$78.37	$134.66

Notes:

1) Population densities (people per acre) shown here are based on the 2000 Census results (OFM 2002) and land area as of the year 2000:

	2000 Population	Land Area, acres	Density
Anacortes	14,557	8,384	1.74
Mount Vernon	26,232	7,232	3.63
Sedro Woolley	8,658	2,304	3.76
Remainder of County	53,532	1,092,670	0.05
Totals	102,979	1,110,600	0.09

2) 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 (at the customer's request).
3) 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 one pickup per week at the volume shown). Additional charges may apply for container rental, recycling services, access problems, overflow conditions and other factors.
4) Waste Management Service Area includes Concrete, Hamilton, LaConner, Lyman, and the unincorporated areas), plus the City of Burlington by contract. Recycling pickup is available only west of Highway 9.

Private Collection Services

Waste Management provides waste collection services in five towns (Burlington, Concrete, Hamilton, LaConner 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, 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 provide waste collection services to residents and businesses in the unincorporated areas of the County.

Waste Management has several trucks and other pieces of equipment, including rear packer trucks, semi-automated trucks and toters, trucks that can empty containers (dumpsters) that are one to four cubic yards, and tilt frame (roll-off) trucks for hauling drop boxes with capacities of 10, 20, 25, 30, 40 and 53 cubic yards in size. Waste Management also collects solid waste in three neighboring counties (Snohomish, Island 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 every-other-week pickup of one can. The rate for every-other-week collection of garbage 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. For commercial customers, garbage rates range from $11.50 per month for once-weekly pickup of one can of garbage (32 gallons) to $403.99 per month for a 4-yard container collected three times per week. 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 Washington Utilities and Transportation Commission (WUTC).

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.

Existing Rules and Regulations

State Regulations: The WUTC supervises and regulates garbage collection companies for their operations in certificate areas. Their authority (Ch. 81.77 RCW and Ch. 480-70 WAC) is limited to private collection companies and does not extend to municipal collection systems (Anacortes, Mount Vernon and Sedro Woolley) or to private companies operating under contract to a city (such as Waste Management's garbage collections in Burlington and recycling services in other cities). For private haulers under their jurisdiction, WUTC may require reports, fix rates, and regulate service areas and safety practices.

Local Regulations: Garbage collection service fees are mandatory in Anacortes, Burlington, Mount Vernon and Sedro Woolley. Additional provisions for garbage collection are contained within the municipal codes for these four cities.

Other Regulations: Additional regulations on a local, State and Federal level apply to waste collections and collection equipment. One example of this is motor vehicle noise performance standards that apply to trucks transporting solid waste (Ch. 173-62 WAC). There are also weight limits, emissions standards and other regulations regarding motor vehicles that apply to garbage trucks.

6.2.3 Needs and Opportunities for Solid Waste Collection

The current collection system serves the County's and City's residents and businesses adequately. Future waste quantities have been estimated (see Table 2.6), and the existing collection system is anticipated to be able to handle the projected increase.

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

6.2.4 Alternative Methods for Solid Waste Collection

Possible alternatives to the current collection system include changes in the cities' contract and a service ordinance for other areas of the County. Both of these approaches could be used to institute new programs or requirements for collection services in the respective areas that are covered by each. Other possible alternatives could include changes in the collection rate structure, mandatory subscription to garbage collection and co-collection.

Municipal Options

Cities and towns have several options for managing solid waste collection under State laws. None of these options prevent a resident or business from hauling their own waste. These options are:

- a city may operate its own municipal collection system.
- a city may contract with a garbage hauler for collection services in all or part of the city.
- a city may require a certificated collector to secure a license from the city.
- if a city does not wish to be involved in managing garbage collection within its boundaries, collection services can be provided by the waste collector certified by the WUTC. In this case, specific services can still be required by ordinance (see below).

If a city is conducting their own collection system and part of an adjacent area served by the certificate hauler is annexed by that city, the hauler retains the right to service that area for another seven years after annexation. Even after the seven-year period, however, a hauler can claim "measurable damages" and a city may need to pay for the right to include an annexed area in their service area.

Service Ordinances and Minimum Service Levels

Minimum levels of garbage and recycling services can be established by contract (for cities contracting for garbage collection services); by ordinance (by cities or counties, for those areas within their jurisdiction); or though this CSWMP for the certificate areas (see RCW 81.77.030(6)).

Service ordinances can be adopted by a county to set minimum service levels or other requirements. These ordinances can be used to establish minimum service levels in certificate (unincorporated) areas for curbside recycling, yard debris collection, public education, or other services. Once adopted, these requirements can be taken into account by the WUTC when they review a hauler's rates and services. This CSWMP can also achieve the same effect for basic services, however, as the WUTC will take into account any services that are clearly stated in an adopted solid waste management plan.

Collection Rates

There are several options possible for structuring collection rates, but rates that are based on volumes collected are often viewed as the most equitable and are also effective for encouraging waste reduction and recycling (SERA 1996). "Attaching" the cost of recycling and yard debris collections to the base fee for garbage has also been found to be effective for encouraging participation in those waste diversion activities (SRM 1999). The collection programs in Skagit County are already using volume-based rates for both residential and commercial customers.

In the areas served by the municipal waste collection programs, the cost for recycling is already attached to the basic fees for garbage collection (these fees are shown separately but are mandatory). Yard debris cannot be combined with waste collection fees in the larger cities because yard debris is banned from disposal in Mount Vernon, Anacortes and Burlington (Sedro Woolley will ban yard debris in 2004). In addition, Anacortes and Burlington use a system of pre-paid garbage bags that provide for disposal of extra amounts of garbage, which is also a good approach for volume-based fees.

In the certificate areas of the County, fees for recycling are in addition to the garbage collection fee. Although it can be argued that residential (and commercial) customers can reduce garbage collection fees by diverting part of their materials to the less-expensive recycling service, this is still not the best approach for encouraging recycling. Another option is the use of an "incentive rate" or reduced rate to encourage recycling, such as Waste Connections offers in Pierce County, where the combined rate for garbage and recycling services is lower than the rate for the same level (i.e., same number of cans) of garbage service alone. Implementing incentive rates in the certificate areas requires either that the County adopts a service ordinance that provides the foundation for this approach or a clear statement of the same intent in this CSWMP.

Garbage collection rates also provide a good level of incentive for recycling and waste reduction when those rates are "linear" (so that the cost of two-can service is twice the cost of one-can service, etc.), or when the additional cost for higher levels of service is even greater. There are some concerns that such large differences in volume-based rates may tempt residents to illegally dump their waste, but studies have shown this to be only a minor and temporary problem. Even so, any new or additional volume-based rates must be properly designed and publicized to avoid negative public reaction. Another concern is that such rates will lead to people packing too much waste into one can (what was coined the "Seattle Stomp" after that city implemented linear rates years ago). A study in Vancouver, Washington, concluded that there are no substantial differences in waste densities (pounds per can) for one can versus two cans per week service levels (SRM 2001). Local attempts to implement linear rates have been rather discouraging, however, and even short-term problems with overflowing cans and public opposition have proved daunting.

Rates in the cities with municipal collections already approach a linear system, however, and rates in the certificate area served by Waste Management are required by the WUTC to be based on a cost-of-service calculation that doesn't allow a linear rate system.

In either the certificate or municipal collection areas, rates can be reduced by reducing the actual cost of collection. One method to reduce costs is to reduce collection frequency. Several communities, including Olympia and Vancouver, have reduced the frequency of garbage collection to once every two weeks without suffering problems with odors or mess.

Mandatory Garbage Collection

Another alternative to meet collection needs for Skagit County is mandatory garbage collection services in the rural areas. Currently about 55% of the County's residents are in areas where collection service is already mandatory (i.e., the incorporated areas) and the remainder of the residents are in areas that are largely rural and where subscription to collection service is voluntary.

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 actively trying to reduce wastes.

Mandatory collection in unincorporated areas could be provided through a solid waste collection district. State law (Ch. 36.58A RCW) enables a county to establish such a district. The concept of a solid waste district is discussed in greater detail in Chapter 8.

Co-Collection of Waste and Recyclable Materials

Recycling programs in Skagit County could potentially benefit from a co-collection approach. Co-collection is the collection of waste and recyclable materials (or yard debris) at the same time. Co-collection can be accomplished using methods that can be categorized as either bag-based or bin-based systems.

Bin-Based Methods: Bin-based co-collection systems use a truck with two or more compartments to hold the different materials. The compartments are then emptied separately at two different facilities, or at the same location if a facility can process recyclables as well as transfer garbage. If two separate facilities are used to separately process the garbage and recyclables, then these facilities must be adjacent or located closely to each other to avoid transportation inefficiencies.

Bag-Based Methods: This approach uses special bags to hold recyclables (or yard debris), which are then placed in the same compartment as bags of garbage and recovered later after the load is deposited on the floor of a transfer or processing facility.

The advantages of co-collection are that the cost of collection and the amount of truck traffic may be reduced. Potential disadvantages include the inefficiencies that result from incorrectly-sized compartments (for the first approach listed above) or the loss of recyclable materials due to bag breakage (for the second approach). Several co-collection programs have been tried and failed due to such problems.

6.2.5 Recommendations for Solid Waste Collection

Three recommendations are being made at this time for solid 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.

WC2) Incentive rates for residential customers, where the cost of recycling is attached to the base rate for garbage collection and the customers who recycle pay a lower monthly fee, should be added in the Recycling Service Area. Additional incentives and alternative rate structures that promote waste reduction and recycling should also be considered.

WC3) A summary of the preferred service levels for garbage collection, recycling, and yard debris (as discussed in Chapters 4 through 6) is shown in Table 6.2. These services are adopted as the minimum requirements for these services in the Skagit County.

6.2.6 Implementation Schedules and Costs for Solid Waste Collection

The cities with municipal collections should consider instituting every-other-week service, and other changes as necessary to comply with the minimum service levels, with the next revision of their waste collection rates, but no later than one year after the final approval of this plan by Ecology.

The certificate hauler should institute incentive rates, and other changes as necessary to comply with the minimum service levels, with the next change in rates after adoption of this CSWMP, but no later than one year after the final approval of this plan by Ecology. These changes will require a filing with the WUTC to address the mandatory-pay aspects, the incentive rate, the cost of recycling and the commodity credit program. When incentive rates are implemented in the Recycling Service Area (see map in Figure 6.1), residents in that area should be notified about the new rate structure and that recycling is available. The preferred amount of the cost reduction for the incentive rate is at least $1.00 per month per can of service.

Table 6.2. Minimum Service Levels for Skagit County.

	Residential Services[1]		
	Garbage	**Recycling**	**Yard Debris**
Service Area: Cities and UGA's	Full range[2]	Curbside	Curbside
Rural areas, **west** of Hwy. 9, (Recycling Service Area)	Full range	Curbside, with incentive rate	Curbside
Rural areas, **east** of Hwy. 9	Full range	Drop-off, and curbside if feasible[3]	Private drop-off sites
	Commercial Services		
	Garbage	**Recycling**	**Yard Debris**
Service Area: Cities and UGA's	Full range[2]	Collection available[4]	Collection available
Rural areas, **west** of Hwy. 9	Full range	Collection available	Collection available
Rural areas, **east** of Hwy. 9	Full range	Collection available for a limited range of materials	Private drop-off sites

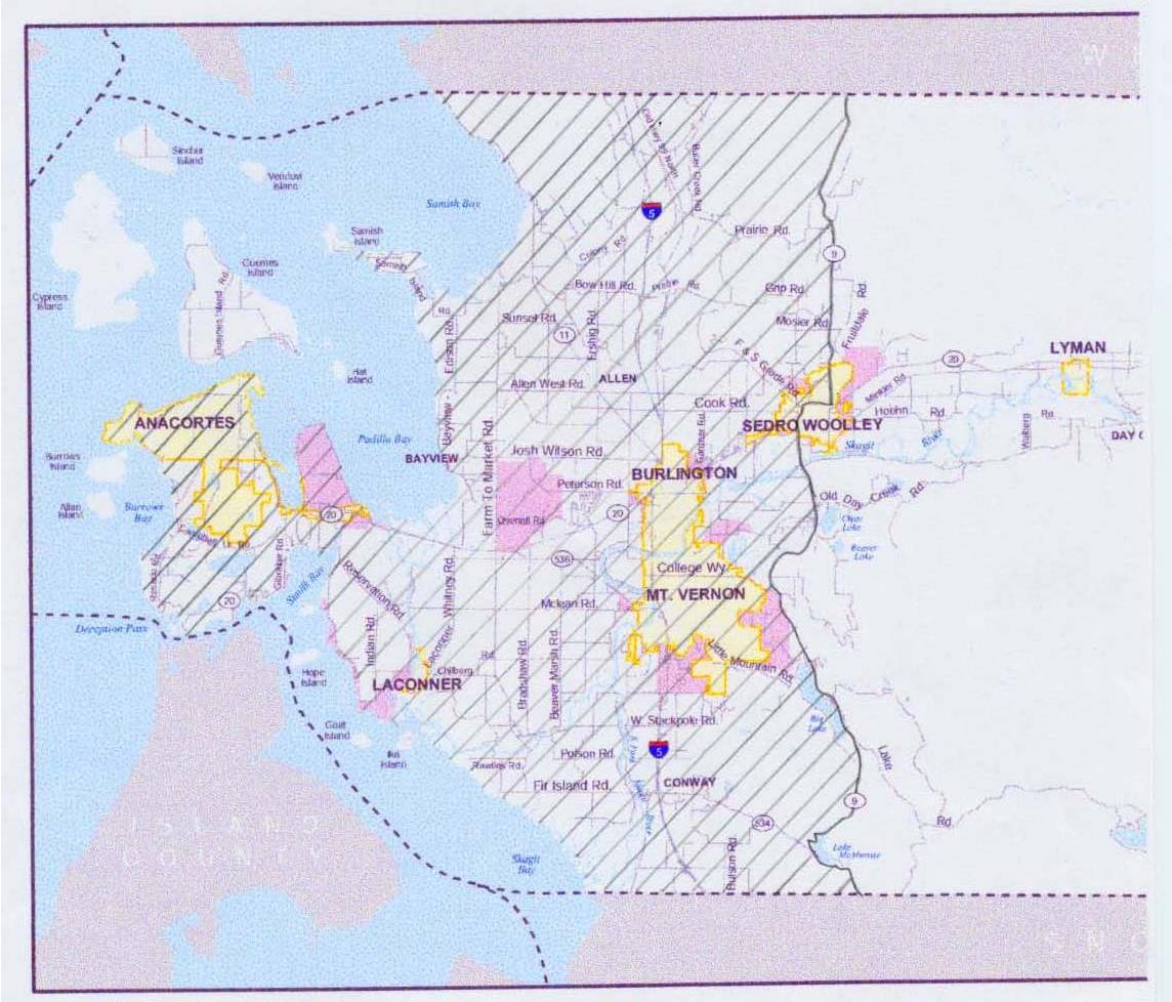
Notes:

The above summary indicates services that must be made available in each of the areas, but does not address factors such as voluntary versus mandatory payment or participation. These and other factors not addressed above should be kept the same as in the current services. Any significant changes in the other factors affecting service levels must be discussed at a SWAC meeting before changes are implemented (see also Section 1.7, concerning amending the solid waste plan). The primary responsible party for providing these services (or ensuring that they are provided by others) are Waste Management in the certificate area and the four largest cities (Anacortes, Mount Vernon, Sedro Woolley, and Burlington by contract) in their respective service areas.

1. Residential services are defined here to include apartment buildings and mobile home parks, although it is recognized that these situations may require adjustments in the services provided.
2. For residential garbage collection services, the "full range" of services is defined to include one or more cans per week and a mini-can option. For commercial customers, the full range of services means a variety of options for container sizes and collection frequencies. Every-other-week collection should also be offered for residential and, as appropriate, commercial customers.
3. For residential recycling services east of Highway 9, the existing drop-off sites at the Sauk Transfer Station and Clear Lake site (as well as private recycling opportunities in Burlington and other areas) are critical opportunities for recycling and must be maintained or replaced if either site is closed.
4. For commercial recycling services, "collection available" means that the appropriate party (Waste Management in the certificate area and the four cities in the municipal collection areas) are ultimately responsible for ensuring that recycling services are available to the businesses in their service area. Collections should include a basic list of recyclable materials (ideally this would include the full list of designated recyclables, see Section 4.2.4) and could be provided by others, possibly for a fee if necessary.

The above does not address, nor is it intended to exclude, other private recycling or composting services.

Figure 6.1. Recycling Service Area for Skagit County



The shaded area shows the Recycling Service Area (RSA), which is all areas of Skagit County west of Highway 9 (excluding islands).

CHAPTER 7: TRANSFER AND DISPOSAL SYSTEM

7.1 INTRODUCTION

This chapter discusses the various components and options for the transfer and disposal system in Skagit County. The solid waste management activities discussed in this chapter are organized into five sections:

7.2 System Overview and Policy
7.3 In-County Transfer
7.4 Waste Import and Export
7.5 Incineration
7.6 In-County Landfilling

7.2 SYSTEM OVERVIEW AND POLICY

7.2.1 Introduction for System Policy

The transfer and disposal system in Skagit County is made up of a combination of programs, activities and agreements that together ensure the proper and effective handling of solid waste. In this sense, the transfer and disposal system (or "the System") is a well-integrated arrangement that is connected to waste collection and recycling programs inside and outside of Skagit County. A substantial investment has been made in the System by Skagit County, which has acted on its responsibility for ensuring proper disposal of solid waste. The cities and many private companies have also made substantial investments in the System, as they have acted to safeguard public health and to provide important services in that regard. It must be recognized that the System will continue to evolve as it adapts to changing needs and priorities, but that this change must be guided by a sensible process that safeguards public health while balancing public and private interests.

Part of the basis for the System can be found in State law, especially RCW 70.95. In Section 70.95.020, the purpose of Chapter 70.95 is stated as being "to establish a comprehensive state-wide program for solid waste handling" and that it "assigns primary responsibility for adequate solid waste handling to local government."

7.2.2 Background for System Policy

The transfer and disposal system in Skagit County has undergone significant change since the previous solid waste plan. The previous plan addressed the closure of the primary landfill in the county (Inman Landfill) and the shift to an in-county incinerator as the primary disposal method. Regulatory and other changes led to the closure of that incinerator and a shift to waste export as the primary disposal method. The old incinerator became the County's primary transfer station, and is now being used to consolidate loads of waste from self-haulers, garbage trucks, and the rural transfer stations. These loads are compacted into large containers, which are trucked to a railhead and then placed on trains to be brought to a large landfill in southern Washington. The necessity and magnitude of these changes could not be anticipated by the previous solid waste plan, but the County has taken the appropriate steps to respond to these changes and to ensure the safe and proper handling of solid waste.

One of the significant issues that has arisen since the last solid waste plan was adopted is the heightened judicial scrutiny regarding "flow control" (the authority of local governments to control the flow of solid waste to designated disposal sites). In May 1994, just one month after the final adoption of the previous plan, the U.S. Supreme Court (Carbone vs. the Town of Clarkston) ruled that a local ordinance requiring the delivery of garbage to a specific facility was unconstitutional because it interfered with interstate commerce. This took many people by surprise across the nation, since flow control had been an accepted practice for ensuring adequate flows of waste to capital-intensive facilities such as incinerators. Flow control was seen as a critical component of the transition from landfills and other facilities to new but expensive facilities such as incinerators and other waste processing facilities. The consequences of this ruling reached far beyond the locality involved in this case.

Since that ruling, various court decisions have resulted in new rules and requirements regarding flow control, including some limitations on the powers of local governments in regulating solid waste activities. Currently, flow control remains available to local governments, but in more prescribed forms and alternatives. This situation is addressed through this new solid waste management plan.

Additional changes since the previous solid waste plan include:

- increased interest in privatizing various activities, including waste collection and disposal.
- consolidation of the garbage collection companies in Skagit County.

Together, these changes underscore the need to recognize that the existing facilities in Skagit County represent a coordinated system that ensures proper handling and disposal of solid waste. In addition, the transfer and disposal part of the system also serves to fund related aspects such as cleanup of illegal dumping, remediation of past disposal problems, and proper management of moderate risk wastes. Unless an alternative funding source(s) can be developed in the future to support these related activities (an unlikely scenario), the transfer and disposal system bears a responsibility to continue to support these activities. With these and the other aspects of the system in mind, there is clearly a need for a policy and process to guide future developments.

7.2.3 Skagit County System Policy

The use of the term "the System" in the following policy is intended to refer to the transfer and disposal system in Skagit County that is used for the disposal of solid waste. As used here, "the System" includes the legislative authority of the County and the other municipalities (as signatories to the solid waste plan). This policy is intended to apply to facilities that handle "traditional" solid wastes. Facilities that only engage in recycling and composting and that do not engage in disposal to a significant degree are not meant to be included in this policy (see Part C, below, for more details). Moderate and hazardous risk waste facilities are also not intended to be included in this policy. The development and operation of facilities in the county that are not addressed by this policy are still potentially limited by other considerations, such as health, safety, environmental, and zoning regulations, ordinances and statutes.

A. Introduction

The intent of this policy is to set out a framework for negotiations and interaction between the parties by defining the reasons the System has developed this policy, and by delineating the requirements that the System will impose upon private parties or other public agencies.

Accordingly, the only obligation and legal duty that this policy creates is for the System and private or public parties to act in good faith.

A basic premise underlying this policy is that proper solid waste management is ultimately a County responsibility, as provided by State law. Therefore, Skagit County has a statutory right and an obligation to act on that responsibility. This policy is also based on the idea that it may be beneficial to county citizens for private or other public parties to help the System fulfill this responsibility. Therefore, all solid waste facilities, whether owned and operated by the System or by another party, should be seen as components of that solid waste management system and, to the extent these components are provided for under this chapter, they are identified as optimal by the System. Privately owned facilities are operationally, but not legally (except as provided for by specific contracts), part of the System.

B. Policy Purposes

The general purposes of this policy (consistent with the County's contractual obligations and in accordance with evolving rules regarding flow control) are to:

1) allow the development of a competitive environment for the provision of solid waste related services that will preserve the System's ability to fulfill its solid waste related financial obligations and legal mandates;

2) preserve the System's ability to make and ensure the implementation of solid waste related ordinances and policy; and

3) encourage the development of an environment that will advance the System's interests and goals (see Part D).

C. Policy Application

The System intends that this policy apply to all private and public facilities where any of those solid wastes destined for disposal and traditionally controlled by the System as part of the solid waste stream are handled, and to rail yards where intermodal transfer of containers of waste occurs. However, this policy is not intended to apply to private facilities that handle only materials intended for recycling, composting, or energy recovery. Materials shall be considered to be "intended" for recycling, composting, or energy recovery when the facility's incoming material has been source-separated for the intended use and when the incoming stream of materials does not contain more than 10% per load, or 5% for an annual average, of material unsuitable for the intended purpose of the facility (i.e., recycling, composting, or energy recovery).

Examples of the types of facilities to which this policy does not apply include medical incinerators, other incinerators that burn only a single material that has been source-separated for energy recovery, waste wood chippers, tire reclamation facilities, and material recovery facilities receiving and handling only source-separated recyclables. In addition, this policy is not intended to address facilities that handle hazardous and moderate risk wastes.

In instances where the applicability of this policy to a proposed facility is open to question, the Skagit County Public Works director shall have the discretion to apply the policy or exempt the

facility from the policy. When a party is aggrieved by the decision of the Director, the party may appeal the decision to the County Board of Commissioners.

D. Policy Goals

This policy is intended to achieve the following goals:

1) ensure environmentally sound solid waste handling and disposal;

2) promote long term rate stability;

3) ensure the opportunity for meaningful public participation in decisions about System changes;

4) preserve the System's solid waste revenue base to meet obligations related to solid waste, and to support programs and policies;

5) ensure the System's recycling, waste prevention, resource conservation, and moderate risk waste goals and policies are met;

6) provide for cost-effective services;

7) provide for and encourage comprehensive and convenient services to customers of the System; and

8) provide for monitoring of contract and permit compliance.

E. Applicable Laws, Regulations and Contracts

Private and public solid waste facilities must comply with all applicable laws and regulations (including land use, health, and environmental requirements) and all applicable contracts (including interlocal agreements and agreements regarding solid waste transportation and disposal services). Such facilities shall be required to obtain necessary land use permits and undergo appropriate review under the State Environmental Policy Act as required.

F. Project Initiation

The System envisions that owners/operators of private solid waste facilities may establish their enterprises either in response to a System procurement for solid waste services, or upon their own initiative to site, permit and operate such facilities in accordance with this policy, and upon completion of a detailed financial analysis by competent professionals that shows how the proposed facility may affect the solid waste revenue base needed to meet obligations related to solid waste, and to support programs and policies.

G. System/Operator Contract

The County (as a representative for the System) and the owner/operator of a proposed private or public solid waste facility shall negotiate a contract (or interlocal agreement for a publicly owned facility) that addresses the following topics at a minimum. The County shall approve the contract if it is substantially in accord with each of Parts B, D and E above, and the owner/operator's proposed activities do not conflict with any provision of this policy. An approved contract will be a requirement prior to issuing a solid waste permit, and continued contract compliance will be a condition of the annual renewal of the solid waste permit. The contract or interlocal agreement shall address:

1) a description of the types of materials to be handled at the facility;

2) an identification of the customer type, geographic source, destination, disposal and/or final disposition of materials handled at the facility;

3) procedures to ensure accurate accounting of materials handled, regardless of whether such materials are generated in or outside the county;

4) a description of the methods for the facility to contribute to meeting the waste reduction and recycling goals of the System;

5) protection for the System in case of disruption of service or default of this contract by the owner/operator;

6) protection for the System from liabilities arising from the negligent acts or omissions of the owner/operator;

7) provision for payments to the County to cover System commitments for past, present and future costs, as a fee based on tonnages handled (a "System fee"), including but not limited to:

   - debt service for past and future facilities;
   - ongoing environmental management programs (such as landfill closure costs) and future programs (such as cleanup of abandoned landfills);
   - ongoing waste reduction and recycling programs, such as recycling services, moderate-risk waste collection programs, and public education activities, to the extent that these are normally paid through surcharges on disposal fees;
   - Health Department enforcement and regulatory programs related to solid waste, to a similar extent that these are also paid through surcharges to disposal fees at other solid waste facilities;
   - a pro-rated share of the fixed costs of the public facilities from which the waste was diverted;
   - legal and professional fees related to solid waste programs;
   - additional administrative costs caused by the facility's operation and not covered by permit fees; and
   - other fees and costs.

8) provisions for complying with System commitments under other contracts it has entered into;

9) provisions for the payment of fees that the System and the private or public operator may owe to each other under the contract, or under local, state, or other applicable law, including adjustments for over-payments or under-payments made in the previous year (or other period); and

10) provisions for periodic adjustments in the System fee and other amendments that may be necessary. This provision shall include the option for either party to request an adjustment in the System fee should tonnages handled by the facility differ significantly from projected amounts.

H. Effect on System Employees

The System and private owners/operators shall make every reasonable effort to arrange for employment of System employees whose jobs may be lost as a direct result of the private facility operations.

I. Contract Compliance

In all instances the facility scalehouse will be operated by or under the direct authority of the System, or the facility will be otherwise monitored to the satisfaction of the System to ensure that all contract provisions are met.

J. Role of System Plans

Private facilities handling waste from outside the county shall do so in compliance with the Skagit County Comprehensive Solid Waste Management Plan, the Moderate Risk Waste Plan, and the Comprehensive Plan, and must also be in compliance with the solid waste management plan and other rules and regulations of the jurisdiction in which the waste is generated, as applicable. Skagit County may collect System fees on behalf of other counties, pursuant to an interlocal agreement with that county, for those waste tonnages from that county.

7.2.4 Recommendations for System Policy

The following recommendation is made concerning the System Policy:

SP1) The Health Department shall modify their solid waste regulations to require ongoing contract compliance as a condition of the annual solid waste facility permit renewal requirements. That provision should also clearly state what facilities are covered under the regulations.

7.2.5 System Policy Implementation Schedules and Costs

Incorporating the requirement for contract compliance as a condition of obtaining a solid waste facility permit should be done within one year of the adoption of this CSWMP. The net cost of this recommendation should be minimal (consisting only of a small amount of staff time to address this change).

7.3 IN-COUNTY TRANSFER

This section discusses the drop boxes that collect waste from rural locations in Skagit County and the central transfer station (the Skagit County Recycling & Transfer Station). The waste from the drop boxes is hauled to the Recycling & Transfer Station (RTS) and consolidated there for shipment out-of-county (waste export).

7.3.1 Background for In-County Transfer

The previous solid waste plan made a number of recommendations regarding transfer activities, and these are shown in Table 1.1 (see Recommendations #9-1 through 9-3, 4-14, and 5-10). Some of these recommendations have been accomplished and some are no longer relevant.

7.3.2 Existing Conditions for In-County Transfer

The Skagit County Recycling & Transfer Station (RTS) is the County's main transfer facility. The County also operates the Sauk Transfer Station and the Clear Lake Recycling Center and Compactor Site, which provide an opportunity for citizens in rural areas of Skagit County to dispose of their waste and to recycle.

<u>The Skagit County Recycling & Transfer Station (RTS)</u>

The RTS is located approximately five miles west of Mount Vernon at the intersection of Farm to Market and Ovenell Roads. The RTS is at the site of the closed incinerator, and is owned and operated by Skagit County. It is open daily, 360 days a year for recycling and waste disposal. The site is open from 6:30 a.m. to 6:00 p.m. Monday through Friday and from 8:30 a.m. to 6:00 p.m. Saturday and Sunday. The station consists of a vehicle scale, scalehouse, recycling drop-off area, Z-wall for self-hauled waste and recyclables, tipping building for commercial and self-haul vehicles, monorail crane, and pre-load compactor.

During 2003, the facility received 93,357 tons of waste, an increase of 3,466 tons or 4.0% over 2002. This figure includes waste brought from the Sauk (1,536 tons) and Clear Lake (507 tons) sites, waste delivered by Waste Management (the certificated collection company in Skagit County) and the cities that conduct municipal collections, and waste brought in by businesses and residents (self-haul). In addition, 2,404 tons were diverted for recycling from all three sites. From the RTS alone, 1,619 tons of recyclable materials were brought in separately by the customers. Rick's Refrigeration picked up 1,103 refrigerant-containing and 3,218 other appliances for recycling from the RTS in 2003.

A total of 115,933 customers (an increase of 6,632 customers or 6% over 2002) disposed of trash at the RTS in 2002. These figures do not include people who used the RTS only to recycle.

The dependability of the RTS and the system overall is very important. An average of 260 tons of waste a day is brought to the Recycling & Transfer Station. During certain times of the year, as much as 700 tons have been received in a single day. If necessary, solid waste can be accumulated for four to five days before all available storage space is used. As the trash arrives, it is imperative that it be shipped out in a timely manner.

The Sauk Transfer Station

The Sauk Transfer Station is located between Concrete and Rockport and is open Thursday, Saturday, and Sunday from 9:00 a.m. to 5:00 p.m. 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. The trailer for the site attendant was replaced with a new trailer in 2001.

A 40-foot long, 40-ton Fairbanks vehicle scale was installed in June 2000. All waste is now weighed and charged the same fee as at the RTS: $83.00/ton tipping fee plus the 3.6% refuse tax for a total of $85.99/ton. There is a minimum charge of $5.00 for up to 116 pounds of waste. Appliances that contain refrigerant are charged at a rate of $25 for disposal, and non-refrigerant appliances have a $10 fee. There is no extra charge for tires, although there is a limit of four tires per customer.

During 2003, the facility collected 1,536 tons of household waste. A total of 10,347 customers used this site, an increase of 1,252 (14%) from 2002. The Sauk Transfer Station also accepts a variety of materials for recycling, including glass, aluminum, cardboard, plastic milk jugs, magazines, and mixed waste paper. Recyclables are hauled by the County to Skagit River Steel & Recycling in Burlington for sorting, processing, and marketing. In 2003, 335 tons of recyclable materials were collected at this site. In addition, Rick's Refrigeration picked up 191 refrigerant-containing and 457 other appliances for recycling in 2003, removing refrigerants in accordance with regulations. Used motor oil and automotive antifreeze were collected from this site by the same contractor that handles these materials from the Skagit County Household Hazardous Waste Collection Center, and the quantity figures for these fluids are included in the totals for the Collection Center.

The Clear Lake Recycling Center and Compactor Site

The Clear Lake compactor site is located near the intersection of State Highway 9 and South Skagit Highway. This site is open Monday, Wednesday, Friday, Saturday and Sunday, from 8:00 a.m. to 6:00 p.m. for the collection of household wastes. The site consists of an attendant's building (a new trailer was installed for this in 2001), two stationary compactors (new, larger ones were installed in 2001), six recycling drop boxes of various sizes, and an appliance receiving area.

During 2003, the facility collected 507 tons of household waste. A total of 6,684 customers used the compactors, an increase of 786 (13%) from 2002. The County owns and operates this transfer station, contracting with Waste Management to haul the full waste containers to the RTS.

Clear Lake customers pay an equivalent of $5 per standard residential trash can. Tires can be compacted along with other household waste, although there is a limit of four tires per customer. Appliances that contain refrigerant are charged at a rate of $25/unit for disposal, and non-refrigerant appliances have a $10/unit fee.

The Clear Lake site also accepts a variety of materials for recycling, including glass, aluminum, cardboard, plastic milk jugs, and magazines. Recyclables are hauled by the County to Skagit River Steel & Recycling in Burlington for sorting, processing, and marketing. In 2003, 450 tons of recyclable materials were collected at this site. In addition, Rick's Refrigeration picked up 146 refrigerant-containing and 457 other appliances for recycling, removing refrigerants in accordance with regulations. Used motor oil and automotive antifreeze were collected from this site by the same

contractor that handles these materials from the Skagit County Household Hazardous Waste Collection Center, and the quantity figures for these fluids are included in the totals for the Collection Center.

Closed Transfer Facilities

The collection sites at Alger, Birdsview and Conway were permanently closed in October 1999 because:

1) the cost of operating each site had increased over the years to the point that it was no longer economically feasible to continue operations. It would have been necessary to triple the per-use fee in order to break even financially.

2) the existing equipment had exceeded its useful life. Upgrading the equipment would have added significantly to the operating cost of each site.

3) a less costly alternative is available for customers that used these sites. The certificated waste hauler can provide collection services to customers in these areas at a lower price.

7.3.3 Needs and Opportunities for In-County Transfer

With the recent closure of the three rural drop boxes, there may be service gaps in parts of the County. This may be true for recycling more than for solid waste, since recycling containers at drop boxes are typically an important opportunity for recycling. The lack of commercial recycling access at the Clear Lake site also represents a service gap for this material in that area of the County.

The rural drop boxes provide an important option for people hauling their own garbage, even though in many cases it may be less expensive for them to subscribe to garbage collection services. Without the rural drop boxes, illegal dumping would increase. Keeping the tipping fee for self-haulers, at the rural sites as well as at RTS, is also helping to prevent illegal dumping according to observations made by Skagit County residents.

7.3.4 Alternative Methods for In-County Transfer

In areas once served by the drop boxes closed in 1999, residents and businesses can either use garbage and recycling services provided by certificate haulers or self-haul to facilities that are still open.

A private company has proposed to construct a new facility near the RTS. In July 2001, Waste Management submitted an unclassified use permit application to the Skagit County Planning and Permit Center for this new facility. The permit application is for a material processing (recycling) facility that would transfer residual waste to a privately owned landfill in Oregon. After reviewing this application, the County Planning and Permit Center recommended denial of the permit in September 2001 based on a number of questions and issues, but the application was put on hold pending the receipt of additional information. In mid-2003, the application was transferred to another organization (Cimarron Trucking and Recycling Co.).

The private company's proposal and other aspects of the collection and transfer system in Skagit County led to extensive discussions by the SWAC. In early 2002, the SWAC identified three main options for the transfer system in the County:

1) allow more than one transfer station.

2) do not allow more than one transfer station, honor the existing long-haul contract through 2013, update and extend interlocal agreements through 2013, conduct an efficiency audit of the current transfer station (RTS) and make cost-effective upgrades not to exceed $500,000, create a Transfer Station Operations Committee to provide oversight and advice on an ongoing basis, and Skagit County to continue to operate facility through 2013.

2A) same as Option 2 except that Skagit County does not continue to operate facility, and instead the operation of the facility would be put out to bid through an RFP. The status or need for the Transfer Station Operations Committee is unclear for this option.

These options were developed and discussed at the request of two mayors and three municipal solid waste managers. After extensive discussion at the February 2002 SWAC meeting, Option 2 was adopted by the SWAC by a 9 to 1 vote. This decision was forwarded to the County Commissioners with a request for their consideration and response. After various meetings and discussions, the County Commissioners requested that the new solid waste management plan reflect Option 1.

In March 2001, a study was begun on additional upgrades to the RTS. This study, the Skagit County Transfer Station Alternatives Analysis (EM 2002), was completed in February 2002 and the results of this study were distributed to the SWAC shortly after the above discussions took place. The Skagit County Transfer Station Alternatives Analysis looked at four alternatives for upgrading the RTS, including a status quo option (the minimum upgrades needed to keep the RTS operational, which includes a new compactor) and three alternatives that included a new compactor and other improvements. The first alternative addressed replacing the existing crane, the second alternative examined a conveyor system to replace the existing crane, and the third alternative examined the most extensive modifications. This study examined the costs and benefits for a 20-year period, although it should be noted that later discussions by the SWAC focused on a shorter time period based on the County's existing contractual obligations (through 2013). The study concluded that the preferred alternative depended on the anticipated waste flow, with the first alternative being favored if the RTS would be receiving a reduced amount of waste (compared to existing conditions) and the third alternative favored if the RTS would continue to receive all of the County's waste. The status quo option was not favored in any case, based on the idea that its cost would still be significant (60-70% of the other options), but without any improvements in customer safety and convenience or in operational reliability and flexibility.

A "rate and efficiency study" is being conducted in late 2004, the results of which were not available at the time this draft was prepared. This study is required by the new interlocal agreement executed in May 2004, and is intended to address questions that have been raised about the efficiency of the existing County facility and calculations of the system cost (see Section 7.2.3.G(7)). Per the interlocal agreement, this study will be managed by the Transfer Station Oversight Subcommittee, and the results will be reviewed by the SWAC and then forwarded with recommendations to the Municipalities Committee.

The potential for changes in the operation or ownership of the two rural sites, the Sauk Transfer Station and the Clear Lake Compactor Site, have not been addressed extensively in the above

discussions, but it can be assumed that any changes in the operation of the main facility (RTS) may necessitate changes in the two rural sites as well.

7.3.5 Recommendations for In-County Transfer

The following recommendation is being made for the transfer system in Skagit County:

T1) More than one transfer station should be allowed to operate in Skagit County, subject to normal permitting requirements and compatibility with the System Policy shown in Section 7.2.3.

7.3.6 In-County Transfer Implementation Schedules and Costs

Additional transfer stations should be allowed as long as those comply with the normal conditions for building, operating and environmental permits and other requirements.

7.4 WASTE IMPORT AND EXPORT

7.4.1 Background for Waste Import/Export

The previous solid waste plan made two recommendations regarding import/export activities, and these are shown in Table 1.1 (see Recommendations #10.5-2 and 12-9). These recommendations were rendered irrelevant with the closure of the incinerator.

7.4.2 Existing Conditions for Waste Import/Export

Existing Waste Import Activities

There are currently no shipments of solid waste to disposal facilities in Skagit County, although wastes are transported through the county to sites in other areas. In addition, various materials flow back and forth across the county line to composting and recycling facilities.

Existing Waste Export Activities

Many counties have adopted the waste export option because of its lower cost and greater reliability. Private companies have responded to this interest by developing large landfills capable of handling wastes from several areas. For many counties, these landfills provide a less expensive and more convenient means of disposal than an in-county landfill.

Skagit County initially began exporting solid waste in 1993, when it was determined that Inman Landfill could not be brought up to new regulatory standards (Subtitle D requirements). Prior to that, the Inman Landfill was being used for disposal of incinerator ash, excess and non-processible wastes, construction and demolition waste (also largely non-processible and non-combustible), and other wastes that could not be handled at the Resource Recovery Facility (RRF). The County requested proposals in March 1993 from private companies for disposal of these wastes at an out-of-county location. Regional Disposal Company (RDC) was chosen as the successful bidder and a

10-year contract was executed with RDC on October 4, 1993. This contract addressed the transportation of wastes from the RRF and disposal at RDC's landfill in Klickitat County, Washington. Then, in 1994 the RRF was closed in response to another regulatory change that required special handling for the ash and other problems in the economics and operation of the incinerator. Once the incinerator was closed, all of Skagit County's waste stream was disposed through the waste export system. The RDC contract has also been amended to provide for a compactor for the waste, thus making the operation more efficient and providing for lower disposal costs. Supplemental Agreement #2 (June 15, 1998) extended the term of the contract through September 30, 2013, with an option for the County to extend it for up to two five-year terms.

When the Resource Recovery Facility was closed, it was converted into a transfer station to serve the waste export system. Currently, the waste export system begins with compaction of the wastes delivered to the Skagit County Recycling and Transfer Station (RTS) into 40-foot containers. The containers are on trailers that are hauled by Skagit County. The trailers were previously taken to Everett, Washington, but in mid-2000 a new railhead was built by RDC less than a mile away from the RTS. The containers are placed on a train and shipped to RDC's Roosevelt Landfill in Klickitat County, Washington. An average of twelve to fifteen containers per day, 5 days a week, weighing 28 to 29 tons each, were shipped from the Skagit County RTS in 2002.

The disposal cost for the waste export contract was reduced in 1999. As a result of renegotiations of the disposal price with RDC, a $5.00 per ton reduction went into effect on January 1, 1999. As a result of this reduction, a rebate of $159,425 was given to the eight cities in Skagit County. This rebate was split among the municipalities, and the individual amounts were based either on the amount of solid waste brought to the RTS by the municipality or based on a projection of waste amounts using the population of the municipality. The current cost of disposal through the waste export contract with RDC varies depending on the weight of load, which provides an incentive to compact the garbage more effectively. These rates are adjusted annually based on 80% of the Consumer Price Index (CPI) in September of the prior year. The rates for 2004 are $46.14 for loads less than 28 tons, $45.51 for loads between 28 and 30 tons (this was the typical weight for Skagit County in 2003), $44.77 for loads from 30 up to 32 tons, and $44.09 for loads that are 32 tons and above.

Small amounts of construction and demolition (C&D) waste 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 9) that are sent to special facilities. Other than special wastes that require handling and disposal outside of the waste export system, the Skagit County Recycling & Transfer Station is currently the designated disposal facility for all municipal solid waste generated in Skagit County.

7.4.3 Needs and Opportunities for Waste Import/Export

Waste Import Needs and Opportunities

There are no significant needs or opportunities for waste import at this time.

Waste Export Needs and Opportunities

Additional improvements and upgrades to the RTS would provide for more efficient loading of containers but would increase capital expenses. Disposal costs could decrease, however, due to

improved compaction of waste into the containers, and other operating expenses might be lower in the long term.

7.4.4 Alternative Methods for Waste Import/Export

Waste Import Alternatives

Possible options for importing solid waste into Skagit County include various sources and types of wastes being brought to proposed or existing in-county facilities. Since Skagit County does not have a landfill or other final disposal facility, any wastes brought into the county would only be for transfer or other interim operations. Hence, for municipal solid wastes (MSW) in general, the only potential scenarios would be importing waste from adjacent counties (Island, San Juan, Whatcom, and Snohomish Counties), or possibly from British Columbia, for consolidation and transfer.

Another possibility for waste import would be for special wastes handled separately from the general waste stream. If a facility were handling a special waste, such that it could provide a less expensive and/or more reliable disposal option for that waste, then the service area could be larger than just the adjacent counties. No facilities in Skagit County are currently designed for this.

Waste Export Alternatives

The economics of waste export and long-hauling to a distant landfill generally require that the waste be compacted before shipment. Therefore, any facility that exports significant quantities of waste is generally equipped with a pre-load compactor or achieves compaction through other means.

Currently, Skagit County operates the only transfer station with a pre-load compactor within the County's borders. The County has a contract with RDC that provides for waste export services through September 30, 2013. At that time, the County could exercise up to two five-year extensions, re-bid the contract, or choose another course of action such as privatizing the entire system.

7.4.5 Policy for Existing Waste Import/Export Contracts

There is one recommendation (policy) being made for waste 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.

7.4.6 Waste Import/Export Implementation Schedules and Costs

The recommendation above requires no specific actions except those activities that may be necessary to oversee the existing contract. A few years before the waste export contract with RDC expires in 2013, efforts should be begun to examine changes to the system and develop an RFP for waste export and/or operation of the transfer station (including the Sauk and Clear Lake facilities).

7.5 INCINERATION

7.5.1 Background for Incineration

The previous solid waste plan made a number of recommendations regarding incineration, and these are shown in Table 1.1 (see Recommendations #6-1 through 6-6, 4-14, 5-10, 5-17, 10.3-1 through 10.3-4, 10.4-4, 10.6-2, 10.8-3, and 10.9-2). The large number of recommendations for this option reflects the fact that, at the time the previous plan was adopted, incineration was anticipated to be the major disposal option for Skagit County. Most of these recommendations are irrelevant now that the incinerator has been closed.

7.5.2 Existing Conditions for Incineration

General Overview

Incineration involves burning solid waste to reduce both its weight and volume. The resulting ash requires significantly less landfill volume than the original waste. When used with an energy recovery system, incineration can also produce steam and/or electricity for sale. Increasingly stringent environmental regulations and adverse public sentiment, however, has made siting and operation of incinerators more difficult and expensive.

Pyrolysis involves heating waste or other materials to elevated temperatures under low-oxygen or no-oxygen conditions. While the lack of oxygen technically distinguishes pyrolysis from traditional incineration, the two technologies are sufficiently similar (both produce heat, air emissions, and ash or other discard materials) that pyrolysis is included in this section of the CSWMP.

Incineration Activities in Skagit County

Skagit County previously operated an incinerator/resource recovery facility (RRF) on Ovenell Road, at the current site of the Recycling and Transfer Station. The RRF included two rotary kiln waste combustors, two heat recovery boilers, an ash handling system, air pollution control equipment, and a 2,500 kW steam turbine/electric generator.

The RRF was operated from 1988 to 1994. In 1993, ash from the RRF could no longer be disposed at Inman Landfill and instead had to be transported to a distant landfill due to changes in disposal regulations. This and other changes in economics and regulations led to the closure of the incinerator in 1994.

In late 1998, after input from local municipalities and a public hearing, the Board of Skagit County Commissioners declared the waste-to-energy equipment at the RTS as surplus to the needs of Skagit County. In March of 1999, a Request for Proposals for the "Sale and Removal of the Waste to Energy Equipment" was issued. Although this request attracted three proposals, none of them resulted in the removal of this equipment during 1999. In 2000, the project was re-bid and the successful bidder salvaged some equipment for resale, demolishing and removing the rest for disposal.

Other Washington State Incinerators

A number of incinerators have operated in other parts of the state. Spokane County and the City of Spokane jointly operate an incinerator using "mass burn" technology. This facility is functioning well although it has experienced occasional problems with air quality, and the cost of operation has not dropped to the lower levels of earlier projections. Until early 1998, the City of Tacoma incinerated part of its solid waste using a Refuse-Derived Fuel (RDF) process and also produced electricity. The RDF process was problematic and was discontinued for a time. The plant currently sits idle because the City has not been able to procure permits needed to use different materials as fuel, however, and may be shut down permanently. Two incinerators in Bellingham experienced several problems and have now been closed, so there are no longer any solid waste incinerators operating in Whatcom County.

7.5.3 Needs and Opportunities for Incineration

There will continue to be a need for disposal of solid waste in the future, although the existing waste export system currently meets this need in a satisfactory manner. Incineration is a technically viable method of reducing waste volumes, and reducing the production of methane (a greenhouse gas) from landfills. It can also use an underutilized renewable resource (solid waste) to produce electricity, for which there is an ever-increasing demand. However, there is considerable technical controversy about the extent and severity of health risks associated with incineration. Siting an incineration facility is a politically sensitive issue, even if there are offsetting benefits such as generating electricity.

7.5.4 Alternative Methods for Incineration

There are several options and variations possible with incineration. These options include a choice of different burning technologies, waste streams, and energy recovery systems. Incineration of solid waste is an effective method of volume reduction, although the greater expense of incineration compared to landfilling is a limiting factor. Incineration is generally considered where there are environmental concerns with other disposal options, where a market exists for energy recovered from waste combustion, and/or other factors. At the present time, there appear to be no factors that would favor incineration in Skagit County over other disposal methods.

7.5.5 Recommendations for Incineration

No recommendations are being made at this time regarding incineration, but any incineration project that may be proposed should be evaluated based on an objective review in accordance with the State Environmental Policy Act and other regulations. Factors that should be considered include the potential impacts on human health and environmental quality, as well as a technical and financial comparison with alternative disposal methods. Most importantly, the consideration of a proposed incineration project should be carried out with full public disclosure, with adequate public notice and with ample opportunity for citizen input.

7.5.6 Implementation Schedules and Costs for Incineration

The potential value of incineration should be reassessed in all future revisions of this CSWMP.

7.6 IN-COUNTY LANDFILLING

7.6.1 Background for In-County Landfilling

The previous solid waste plan made a number of recommendations regarding disposal activities, and these are shown in Table 1.1 (see Recommendations #7-1 through 7-4, and 10.5-1). These recommendations dealt with closure activities at Inman Landfill and disposal methods for C&D wastes, and have largely been accomplished or are no longer applicable.

7.6.2 Existing Conditions for In-County Landfilling

There are no solid waste landfills currently operating in Skagit County. There is one inert waste landfill in Skagit County that has been permitted and that plans to accept waste from the public but has not yet begun operations (see Section 9.11 for more details). There is also an inert landfill operated by a private industry but this site is only for their own wastes.

Landfilling activities have undergone major changes in Skagit County and other parts of the United States over the past few decades. Until environmental regulations were enacted in the 1970's, in response to growing recognition of the impacts of landfills on groundwater, "landfills" in Skagit County and other areas were simply open dumps that were periodically burned. Then garbage began to be buried in these landfills, according to the requirements of WAC 173-301, to reduce rodents and in an effort to reduce the impacts of these dumps on the environment. The open dumps and early landfills were typically free, due in part to the fact that the cost of operating these sites was very low. Once the State adopted WAC 173-304, which further refined landfill requirements, the open dumps and early landfills in Skagit County were closed and replaced with three engineered landfills (the Inman, Sauk, and Gibralter Landfills). Increasing recognition of the impacts of landfills on groundwater, surface water and air quality have led to even more stringent regulations, and shifted the economics and desirability of landfilling activities away from having several local landfills to a few large regional landfills located in drier parts of the state. The Sauk and Gibralter Landfills were operated until 1989 and the Inman Landfill remained in operation until 1994.

Even though the landfills in Skagit County are no longer receiving solid waste, their effects on the environment must still be monitored. There are approximately 30 closed waste disposal sites in Skagit County and only three of these (the Inman, Sauk, and Gibralter Landfills) are required to have environmental monitoring programs. The Inman, Sauk, and Gibralter landfills are required to have environmental monitoring programs for 20 or more years after these landfills were closed (the "post-closure" period). The post-closure period at the Sauk and Gibralter Landfills is through 2008, and at Inman Landfill the post-closure period is through 2024. These periods could be extended if groundwater and gas monitoring result show ongoing contamination or methane generation problems. Although only these three landfills have regulatory requirements for long-term environmental monitoring programs, any of the old waste disposal sites may pose significant environmental concern and potential liability to the County, city, and/or private/public entities that were involved with the landfills.

<u>Inman Landfill</u>

Skagit County operated the Inman Landfill from 1973 until 1994 when it was closed under Chapter 173-304 WAC. The landfill had a phase one section that was closed in 1985, and a phase two

section that was lined and operated from 1985 to 1994. From 1988 to 1994, a portion of the phase two area received ash and bypass waste from the Resource Recovery Facility plus construction and demolition (C&D) waste from a variety of sources (C&D waste was not processed at the incinerator). When Inman Landfill was closed in 1994, both the phase one and phase two sections were completely recapped. The Inman Landfill is the largest of the three landfills that are under the regulatory requirements dictated in Chapter 173-304 WAC. These requirements include general site maintenance, operation of a methane gas extraction system, and a groundwater monitoring program. Upon closure, the landfill was capped with a geomembrane layer and soil, and the post closure monitoring period began. The monitoring period is expected to run for 30 years, or longer if the landfill has not stabilized by then (stability will be indicated by the lack of gas production, leachate contamination and settlement). A landfill gas system has also been installed and the gas is drawn to a flare station to be burned off.

Maintenance at the Inman Landfill includes continued efforts to maintain and improve the general appearance of the landfill, integrity of the liner, and groundwater monitoring and gas extraction systems. All of these efforts are carried out under the direction of Solid Waste Division staff.

The landfill's methane gas extraction system is capturing a few hundred cubic feet per minute of gas in excess of 50% methane. The gas is burned using an on-site flare system. Leachate production has fallen from about 1.8 million gallons in 1994 to about 500,000 gallons in 2000. Future leachate volumes are expected to continue to decrease but at lower rates.

Leachate is disposed at the City of Mount Vernon Wastewater Treatment Plant. A contractor periodically pumps the leachate from the holding pond into a tanker truck and hauls it to the plant. Hauling is generally conducted for one to three days per month. The treatment plant has not experienced any problems from the leachate, and the quality of the leachate is tested and reported monthly as required by the Washington State Waste Discharge Permit for Inman Landfill.

Groundwater sampling and testing for the twelve on-site monitoring wells is conducted quarterly by the Skagit County Hydrogeologist as required by Chapter 173-304 WAC and by the Skagit County Health Department. Quarterly and annual reports of the groundwater test results are submitted to both the County Health Department and the Washington State Department of Ecology.

Due to potentially contaminated groundwater, public water has been provided to several homes in the vicinity of the Inman Landfill. Chemical analysis results from the on-site monitoring wells continue to show that both aquifers underlying the site are impacted by the landfill. There is evidence, however, that groundwater quality is slowly improving. Groundwater quality is expected to continue to show slow improvement over time resulting from specific mitigation measures and the landfill closure design.

The methane gas collection, leachate collection and groundwater monitoring systems generally operate well, but occasional repairs and maintenance will be necessary throughout the monitoring period.

Sauk Landfill

The Sauk Landfill was closed July 1989 under Chapter 173-304 WAC. On-going maintenance of the groundwater monitoring system, landfill cover and general site appearance is conducted by the Skagit County Public Works Department.

Routine groundwater monitoring is conducted quarterly at this landfill as required by Ch. 173-304 WAC. Quarterly and annual monitoring reports are submitted to the Skagit County Health Department and the Washington State Department of Ecology. Groundwater sampling results have been consistent with previous results. The monitored aquifer does show minimal impact from the landfill but not at levels that have raised concern with the regulatory agencies.

Gibralter Landfill

The Gibralter Landfill was closed in January 1989 under Ch. 173-304 WAC. On-going maintenance of the groundwater monitoring system, landfill cover and general site appearance is conducted by the Skagit County Public Works Department. Routine groundwater monitoring at Gibralter is conducted as required by Ch. 173-304 WAC. Required quarterly and annual monitoring reports are submitted to the Skagit County Health Department and the Washington State Department of Ecology.

Recent groundwater samples have shown consistent results. The perched aquifer does show impact from the landfill and the lower regional aquifer has indications of minimal impact.

Abandoned Landfills

There are 33 old landfills ("abandoned landfills") that have been identified in Skagit County. About half of these are the responsibility of the County itself, four or five are on private land, and the remainder are the responsibility of various cities and other public entities. While the abandoned landfills are not required to have routine groundwater monitoring like Inman, Sauk and Gibralter Landfills, they still require periodic monitoring and maintenance. Liability and potential public and environmental health issues associated with the abandoned landfills has become a greater concern as development further encroaches on these sites.

In 1990, the Skagit County Health Department compiled a report on the general locations and historical information for the abandoned landfills in Skagit County. This information has been given to planning jurisdictions and interested parties. Due to the increased risk of liability and potential public and environmental health issues related to these abandoned landfills, an effort is underway to systematically identify and assess these risks. This is a cooperative effort between the County Public Works Department, County Health Department and the State Department of Ecology through the Toxics Cleanup Program.

7.6.3 Needs and Opportunities for In-County Landfilling

The Inman Landfill will need to be monitored through at least 2024, and the Sauk and Gibralter landfills at least through 2008.

The old dumps throughout the county need further assessment and may require remedial actions in some cases. Additional small dumps may be discovered in the future and will need to be investigated.

Current standards for municipal solid waste landfills are primarily contained in the State's Criteria for Municipal Solid Waste Landfills, Chapter 173-351 WAC, which contains standards for planning, siting, operating and closing municipal waste landfills. The recently adopted Ch. 173-

350 contains standards for limited purpose and inert waste landfills. In addition, the County Solid Waste Regulations also address disposal site requirements.

7.6.4 Alternative Methods for In-County Landfilling

Options that include the use of an in-county landfill for municipal solid waste have not been examined in great detail in this CSWMP because an in-county landfill for MSW is not considered to be a viable option at this time. The disposal needs of the County are being satisfied by the waste export system, and siting and operating a landfill in a relatively wet, increasingly-populated and partially-mountainous area such as Skagit County would be a lengthy, expensive, and politically-charged process.

Additional special purpose or inert waste landfills may be desirable in the future. These types of landfills typically provide a cost-effective disposal option for local industries or special wastes without excessive environmental impacts. New regulations have been recently developed for inert landfills that could streamline this approach for specific wastes.

7.6.5 Recommendations for In-County Landfilling

There is only one recommendation being proposed at this time for in-county landfilling:

L1) Old landfills that are known to exist throughout the County, and newly discovered dumps as these are discovered, must be further investigated to develop a better assessment of long-term liability, public and environmental health risks. As a result of these investigations, additional remedial actions may be necessary.

7.6.6 Implementation Schedules and Costs for In-County Landfilling

Documentation and inspection activities for the abandoned dumps are expected to be completed over the next few years. This effort should result in a plan to further assess and, where necessary, remediate these landfills. The cost for this investigation should be minimized by using existing programs and staff in the County Public Works and Health Departments. Costs associated with potential remedial actions are unknown at this time and would need to be addressed later.

CHAPTER 8: REGULATION AND ADMINISTRATION

8.1 INTRODUCTION

The solid waste management activities discussed in this chapter are presented in one section:

8.2 Regulation and Administration

8.2 REGULATION AND ADMINISTRATION

8.2.1 Background and Existing Programs for Regulation and Administration

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 comprehensive 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.

The Minimum Functional Standards for Solid Waste Handling (Chapter 173-304 WAC) were promulgated by Ecology under the authority granted by Chapter 70.95 RCW. This chapter has now been superceded by Ch. 173-351 WAC, Criteria for Municipal Solid Waste Landfills, which

contains the current standards for landfills, and Ch. 173-350, Solid Waste Handling Standards, which addresses recycling and composting facilities as well as inert and special purpose landfills.

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 solid waste *collection* districts is provided in Chapter 36.58A.

Ecology began the process for updating the State Solid Waste Management Plan in 2000. When completed, this plan is expected to provide new guidance to local governments for solid waste management procedures and policies.

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 (see Section 5.2.4 for further details), and the recently-adopted revisions to RCW 70.93.060 that provide stiffer penalties for littering and illegal dumping in rural areas.

Local Level

In Skagit County, the local agencies involved in solid waste management include 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 Department of Public Works: The Public Works Department is the agency primarily responsible for solid waste management activities for Skagit County. The Skagit County Public Works Department operates three solid waste transfer facilities: the Recycling and Transfer Station (at the former incinerator), the Sauk Transfer Station near Rockport and the Clear Lake compactor facility. The Public Works Department also operates the Household Hazardous Waste Collection Center (see Chapter 9 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, part-time transfer station attendants, equipment operators, and assistance as needed from the director, financial manager and support coordinator. Altogether, 20.1 full-time equivalents (FTE's) were funded from the 2002 solid waste budget.

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

2002 were $6,257,249, plus an additional $1,089,088 for debt service on facilities (the closed incinerator and Inman Landfill). The revenues to pay for these expenses came primarily from tipping fees plus some grant and bond funds. Table 8.1 shows more detail on budget and expenditures for 2002, 2003, and 2004. Table 8.2 shows the upcoming payments for the two general obligation bonds that are being paid by tipping fees at the disposal facilities in Skagit County.

County solid waste staff also oversees the Adopt-A-Road Program. In 2001, there were 11 groups keeping 25 miles of roadway clean of trash. There were 14 official clean-up days during which these groups collected approximately 4,850 pounds of trash and litter. Some groups keep their assigned roadways clean during daily walks and other convenient times, and dispose of the trash at their own expense instead. There are no statistics available for these groups.

Illegal dumping on public property is addressed through the Community Litter Cleanup Program, which is a three-way partnership between the Sheriff's Department, the Department of Corrections and the Solid Waste Division. The Solid Waste Division provides a crew supervisor/coordinator, administrative direction, supplies and equipment. The Department of Corrections provides hand tools and a workforce of people sentenced to community service by the court system. The Sheriff's Department provides assistance to the court and Department of Corrections by reviewing criminal records and coordinating the schedule of the offenders. The litter crew has been funded by two-year grants ($64,905 for July 1, 2001 through June 30, 2003) 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. In 2001, the Litter Crew utilized 4,620 hours of community service labor. The crew cleaned and picked up litter on 913 miles of roadway shoulders, cleaned up 449 illegal dumpsites and collected 149.4 tons of garbage and litter.

Additional 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. For the last two-year period (2002 and 2003), $272,641 was available to Skagit County from this program.

Skagit County Health Department: The Health Department is the local enforcement agency for County and State regulations regarding solid waste activities. 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. Fines for illegal dumping were increased in 1999, and typically about eight to ten offenders are caught each year. The Health Department also inspects and monitors all permitted solid waste facilities and closed landfills. The Health Department solid waste activities are funded from several sources, including a grant from Department of Ecology, a Health Department surcharge on the solid waste disposal tip fee, permit fees and fines. In 2000 to 2001, supplemental CPG funds were used for an ad campaign against illegal dumping.

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.

Table 8.1. Skagit County Solid Waste Budget.

	2002	2003 [1]	2004 [1]
Revenues			
Tipping Fees	$7,496,369	$7,551,750	$7,680,400
Recyclables	72,930	79,250	78,250
Hazardous Waste Fees	6,197	8,000	8,000
Grants	178,741	168,772	173,270
Investment Interest	53,338	60,000	45,000
Miscellaneous Revenues	10,581	500	500
Total Revenues	$7,818,156	$7,868,272	$7,985,420
Expenses			
Administration [2]	698,112	749,690	654,519
Litter Crew	NA [2]	NA [2]	76,366
Environmental	126,773	232,807	263,286
Education	77,885	90,281	90,899
Transfer Station [3]	1,070,300	1,330,486	1,353,090
Disposal [4]	3,873,006	4,101,060	4,209,090
Rural Sites (Sauk and Clear Lake) [5]	288,438	277,038	294,467
Training	5,272	21,593	21,278
Hazardous Waste Facility	117,463	118,332	136,166
Subtotal, Operating Expenses	$6,257,249	$6,921,287	$7,099,161
Debt Service on Incinerator			
Principle	600,000	665,000	725,000
Interest	194,118	125,045	57,325
Other Debt Service (LF closure, etc.)			
Principle	30,000	35,000	35,000
Interest	294,970	263,725	262,238
Subtotal, Debt Service	1,089,088	1,088,770	1,079,563
Total Expenses	$7,346,337	$8,010,057	$8,178,724

Notes:
All figures are in dollars.
1. Figures for 2003 and 2004 are budgeted amounts.
2. Administrative costs include litter crew expenses for 2002 and 2003.
3. Transfer station costs include recycling activities and separate management programs for white goods (appliances), tires, and yard debris, in addition to garbage handling costs.
4. Solid waste disposal costs only, for all three facilities (RTS, Sauk Transfer Station and Clear Lake Compactor Site).
5. Operating costs for the two rural sites includes recycling activities.

Table 8.2. Debt Service Payments.

Fiscal	Incinerator Bond, 6,685,000			Landfill Closure Bond, 5,365,000			Total Bonds, 12,050,000		
Year	Principal	Interest	Subtotal	Principal	Interest	Subtotal	Principal	Interest	Subtotal
1993		183,553	183,553					183,553	183,553
1994	110,000	313,170	423,170				110,000	303,170	423,170
1995	115,000	309,988	424,988				115,000	309,988	424,988
1996	120,000	306,223	426,223		213,537	213,537	120,000	519,760	639,760
1997	125,000	301,870	426,870		268,788	268,788	125,000	570,658	695,658
1998	515,000	289,515	804,515	20,000	268,788	268,788	535,000	558,303	1,093,303
1999	530,000	268,608	798,608	25,000	268,008	293,008	555,000	536,616	1,091,616
2000	550,000	245,918	795,918	25,000	267,008	292,008	575,000	512,926	1,087,926
2001	575,000	221,155	796,155	25,000	265,995	290,995	600,000	487,150	1,087,150
2002	600,000	194,118	794,118	30,000	264,970	294,970	630,000	459,088	1,089,088
2003 (1)	665,000	125,045	790,045	35,000	263,725	298,725	700,000	388,770	1,088,770
2004	725,000	57,325	782,325	35,000	262,238	297,238	760,000	319,563	1,079,563
2005	735,000	42,825	777,825	40,000	260,715	300,715	775,000	303,540	1,078,540
2006	745,000	28,125	773,125	45,000	258,935	303,935	790,000	287,060	1,077,060
2007	575,000	13,225	588,225	50,000	256,888	306,888	625,000	270,113	895,113
2008 (2)				525,000	254,563	779,563	525,000	254,563	779,563
2009				550,000	229,625	779,625	550,000	229,625	779,625
2010				580,000	202,950	782,950	580,000	202,950	782,950
2011				610,000	174,240	784,240	610,000	174,240	784,240
2012				640,000	143,435	783,435	640,000	143,435	783,435
2013				675,000	110,795	785,795	675,000	110,795	785,795
2014				710,000	76,033	786,033	710,000	76,033	786,033
2015				745,000	39,113	784,113	745,000	39,113	784,113
Totals	6,685,000	2,900,663	9,585,663	5,365,000	4,350,344	9,715,344	12,050,000	7,251,007	19,301,007
Balance as of 1-1-05	2,055,000	84,175	2,139,175	5,170,000	2,007,290	7,177,290	7,225,000	2,091,465	9,316,465

Notes: All figures are in dollars.
1. The 1993 bond was refinanced in 2003.
2. Payments for the landfill closure bond are increased in 2008 to pay off that bond more quickly.

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 guiding 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.

Skagit County Land Use Plan: The County's Comprehensive Plan, adopted June 1, 1997, and most recently revised on July 24, 2000, 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 10), capital facilities (Chapter 11), and shorelines (Chapter 16). Relevant goals and policies from the County's land use plan are shown in Table 8.3.

Cities: The Public Works or Sanitation Departments for the four larger cities in Skagit County (Anacortes, Burlington, Mount Vernon and Sedro Woolley) are involved in solid waste management in several ways, including operating collection systems for garbage and/or managing contracts for garbage collection and recycling. The four smaller cities (Concrete, Hamilton, LaConner, and Lyman) are not extensively involved in solid waste management activities.

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).

Skagit County 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).

8.2.2 Service Gaps, Other Needs, and Opportunities for Regulation and Administration

Unpermitted and illegal sites are a problem in the County. Private residential dumps have created nuisance problems in some areas. Illegal dumping may be addressed through enforcement of State laws regarding solid waste disposal (Ch. 173-304 WAC) or Skagit County ordinances concerning solid waste disposal and/or littering. The need for illegal dumping enforcement appears to increase as the population increases.

The County faces the potential for financial constraints due to the reliance on tipping fees to fund 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.

Table 8.3. Objectives and Policies from Skagit County's Comprehensive Plan.

Utilities

Objective 8	To practice integrated and efficient management of solid waste in accordance with Washington State waste management priorities to protect and enhance the present and future environmental quality and public health in Skagit County through education, regulations, and economic incentives.
Policies:	
10A-8.1	Solid waste management should be provided with adequate resources to manage solid wastes safely, efficiently, and equitably, and should be consistent with State priorities while recognizing local conditions.
10A-8.2	Reducing per capita waste consumption should be supported through educational and legislative efforts that are directed towards changing consumer and industrial practices.
10A-8.3	Recycling efforts and opportunities in Skagit County should be maintained at a high level to increase the recycling rate annually.
10A-8.4	Environmental and economic impacts shall be considered and balanced when determining disposal practices.
10A-8.5	Individuals should be encouraged to take personal and financial responsibility for the proper management of the wastes he/she generates.

Notes: Solid waste facilities are mentioned in several locations in the Capital Facilities chapter, but there are no distinct objectives or policies for solid waste facilities that are easily extracted from that chapter. Policies concerning landfills are also shown in the shorelines element of the Comprehensive Plan, but these are not shown here due to lack of consistency with the County ordinance and State regulations.

There are opportunities for regional efforts involving the neighboring counties (primarily Snohomish, Whatcom and Island Counties). Many of these opportunities are in transfer and disposal systems but opportunities exist for other activities as well. Yard debris and other organics coming into Skagit County facilities from Whatcom County is an example of regional activities in solid waste management.

Additional solid waste facilities will increase the permitting and monitoring activities of the Health Department staff.

As discussed in Chapter 4, additional staffing (a Recycling Coordinator) is needed to implement some of the recommendations in this CSWMP.

8.2.3 Alternatives for Regulation and Administration

The following options address the needs and service gaps identified in the areas of enforcement, administration and funding. Solid waste districts are discussed separately below, as districts would simultaneously affect two or more needs.

Enforcement Options

Illegal dumping could be addressed through increased enforcement activities, universal (mandatory) garbage collection, and education. Increased enforcement would require additional funding for personnel and expenses. If needed, additional funding for enforcement activities could be derived from general funds, surcharges on tipping fees, special assessments, increased permit fees, and/or increased fines for solid waste violators. Other methods to address illegal dumping could include approaches such as requiring violators to participate on litter crews and video surveillance of "promiscuous" dump sites.

Implementation of universal garbage collection services could be achieved in several ways, but usually this is accomplished through some form of mandatory collection requirement. One of the more effective means of implementing mandatory garbage collection would be the formation of a collection district (see discussion of solid waste districts later in this section).

Education is an important aspect of addressing illegal dumping and related problems. Additional education efforts could emphasize to residents their responsibilities for proper solid waste management and the options that exist for properly handling garbage. One aspect of this might be to clarify the costs of garbage collection, to dispel the idea that it is significantly more expensive than self-hauling waste to disposal sites. To the extent that people are encouraged to sign up for garbage collection services, this approach could help prevent the accumulation of large amounts of waste in the unincorporated areas of the County.

Administrative Options

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.

Funding Options

Almost all revenue is currently generated through tipping fees, but other options exist. For example, expenses for capital improvements could be funded through internal financing, general obligation bonds, revenue bonds, industrial development bonds, grant funding, and/or private financing. Administration and enforcement expenses could be funded by assessments to collection systems, general funds, and private funding for private operations. Fees and penalties collected through enforcement actions could be retained for solid waste funding.

The more feasible funding options are discussed below.

Internal Financing: This option involves collecting funds from whatever activity is being financed, thus paying for programs directly or from a capital improvements fund established expressly for

this purpose. Funds generated in surplus of the current needs of the system could be placed in a capital improvement fund. As the fund grows, the opportunity for additional capital improvements to the system increases as well. This method is not well suited for financing large capital expenditures because of the long period of time required for the fund to reach the required size. However, the capital improvement fund can be used to finance small-scale projects, planning studies, and pilot programs.

General Obligation Bonds: General obligation bonds are often used for large municipal capital projects but are currently only rarely used for solid waste facilities. Instead, revenue bonds are more commonly used, even though general obligation bonds may pay a lower interest rate because the debt is backed up by the municipality in general rather than by a specific activity (i.e., less risk to investors).

Loans: Various types of loans could be used to finance a new facility or other capital improvements required to implement a new program. The principal and interest for the loans could then be re-paid by service fees or other revenues. In Skagit County, the most common type of loan is an inter-departmental transfer, using surplus funds temporarily available from another department and then re-paying those before the funds are needed by the other department. Other types of loans are also possible, although one of these, low-interest loans from the Public Works Fund, is not available to Skagit County due to compliance problems with the Growth Management Act.

Revenue Bonds: Revenue bonds are similar to general obligation bonds except that repayment is guaranteed through funds collected from a revenue producing activity, such as through a tipping fee or excise tax. Revenue bonds may require additional obligations such as flow control ordinances and higher tipping fees than a general obligation bond because repayment of the bonds is not tied to the County as a whole, but rather to the revenue generated by a specific activity.

Industrial Development Bonds: For joint ventures between private enterprises and the County, industrial development bonds (IDB's) may be used for funding capital improvements. IDB's are particularly common in financing waste-to-energy projects, but other joint ventures may be amenable to this form of joint cooperation. There is a statewide cap for such bonds, so any project would have to compete with other projects throughout the state. This type of funding is often implemented through an Industrial Development Authority.

Grants: The County and the cities have received grant monies in the past for various projects, and more grants from various sources could be used in the future.

Private Funding: Private solid waste projects or private/public ventures can be financed through private sources. This method of funding capital improvements and programs may be more expensive than the previously mentioned programs due to higher interest rates and profit margins. The cost of privately financed projects could be recovered through charges to customers using the facility.

Skagit County programs are generally funded by grants and/or revenues from tipping fees. Capital improvements are generally financed by reserve funds, inter-department loans, and/or general obligation bonds.

Solid Waste Districts

RCW 36.58 and 36.58A allow the establishment of waste *disposal* districts and waste *collection* districts, respectively, within a county. Either district can include the incorporated areas of a city or town only with the city's consent. A solid waste district (for collection or disposal) could centralize functions that are now handled by a variety of county and city agencies, but it may be difficult to develop a consensus on the formation and jurisdiction of either type of district. Either type of district may be able to alleviate illegal dumping and other problems, however, through the institution of mandatory garbage collection (for a collection district only) or different funding structures.

RCW 36.58.040 prohibits counties from operating a solid waste collection system, but the establishment of a solid waste *collection* district that can act in a similar capacity is allowed by Ch. 36.58A RCW. A collection district can be created following the adoption of a solid waste management plan, but a collection district does not appear to possess taxing authority. According to RCW 36.58A.040, the revenue-generating authority of a collection district is limited.

A solid waste *disposal* district is a quasi-municipal corporation with taxing authority set up to provide and fund solid waste disposal services. A disposal district has the usual powers of a corporation for public purposes, but it does not have the power of eminent domain. The county legislative authority (i.e., the Board of County Commissioners) is the governing body of the solid waste disposal district.

RCW 36.58.130 allows a *disposal* district to provide for all aspects of solid waste disposal. This includes the processing and conversion of waste into useful products, but specifically excludes authority for the collection of residential or commercial garbage. A disposal district may enter into contracts with private or public agencies for the operation of disposal facilities, and then levy taxes or issue bonds to cover the disposal costs. Thus, a disposal district established in Skagit County could assess each resident or business (in incorporated areas only with the city's approval) a pro rata share of the cost of disposal at the Skagit County Recycling and Transfer Station. This could help to discourage illegal dumping by covering at least part of the disposal cost through mandatory payments, so that the additional expense for proper disposal would not be as high as it is currently. In other words, the assessment by the disposal district would be paid regardless of where the resident or business dumped the waste or whether it was self-hauled or transported by a commercial hauler, and the latter two options would be less expensive than current fees by the amount of disposal costs paid by the disposal district's assessment.

RCW 36.58.140 states that a *disposal* district "may levy and collect an excise tax on the privilege of living in or operating a business in the solid waste disposal taxing district, provided that any property which is producing commercial garbage shall be exempt if the owner is providing regular collection and disposal." The district has a powerful taxing authority, since it may attach a lien to each parcel of property in the district for delinquent taxes and penalties, and these liens are superior to all other liens and encumbrances except property taxes.

The funds obtained by a *disposal* district may be used "for all aspects of disposing of solid wastes...exclusively for district purposes" (RCW 36.58.130). Potential uses include:

- solid waste planning.
- cleanup of roadside litter and solid wastes illegally disposed of on unoccupied properties within the district.
- public information and education about waste reduction and recycling.

- defraying a portion of the present cost of disposal.
- subsidizing waste reduction/recycling activities.
- subsidizing the Household Hazardous Waste Collection Center and related programs.
- closure and post-closure costs for the old landfill and for other solid waste facilities.

The topic of solid waste districts has been discussed several times in the past, without much progress towards implementing either type of district, but there is still substantial interest in the advantages of this approach. This CSWMP does not provide a recommendation for or against districts, in recognition of the fact that it may or may not be desirable to consider districts in the future as conditions warrant.

8.2.4 Recommendations for Regulation and Administration

As previously recommended (see Chapter 4), staffing at the County should be increased by one FTE to provide for a Recycling Coordinator position. An additional recommendation being made in this chapter of the CSWMP is:

RA1) Penalties for illegal dumping should be increased and should include a requirement for violators to spend time on a litter crew.

8.2.5 Implementation Schedules/Costs and Monitoring/Evaluation Methods for Regulation and Administration

The County Code should be revised soon to increase penalties and include the requirement for illegal dumping violators to spend time cleaning up litter, either in addition to or instead of a monetary fine. The cost for this approach should be minimal, consisting of staff time to draft such a revision and take it through the adoption process. Evaluating this approach should consist of monitoring the numbers of violators who are required to participate in litter cleanup activities as well as anecdotal evidence on the likelihood of repeat offenses.

CHAPTER 9: SPECIAL WASTES

9.1 INTRODUCTION

The purpose of this chapter is to review the generation, handling and disposal methods for several specific wastes in Skagit County. These wastes generally require special handling and disposal due to regulatory requirements or for one or more other reasons, such as toxicity, quantity or other special handling problems. Hence, many of these wastes are currently managed and disposed of separately from the solid waste disposal system, and may not actually be defined as solid waste.

The following special wastes are discussed in this chapter:

9.2 Agricultural Wastes
9.3 Animal Carcasses
9.4 Asbestos
9.5 Biomedical Wastes
9.6 Biosolids
9.7 Construction and Demolition (C&D) Wastes
9.8 Disaster Debris
9.9 Grease
9.10 Industrial Wastes
9.11 Inert Wastes
9.12 Moderate Risk Wastes
9.13 Petroleum-Contaminated Soils (PCS)
9.14 Street Sweepings/Vactor Waste
9.15 Tires
9.16 Wood Wastes

The nature and source(s) for each special waste is described in this chapter, as well as the existing programs and facilities in Skagit County for handling these wastes. All of the wastes are also examined for needs and opportunities, but only those that pose disposal problems were further examined for alternatives and recommendations. A total of twelve recommendations are provided for nine of the special wastes: agricultural wastes, biomedical wastes, construction and demolition wastes (three recommendations), disaster debris, grease, industrial wastes, inert wastes, moderate risk wastes (two recommendations), and street sweepings.

9.2 AGRICULTURAL WASTES

9.2.1 Existing Conditions for Agricultural Wastes

Agricultural wastes result from farming and ranching activities, and consist primarily of crop residues and manure. Other wastes generated on farms, such as regular household trash or moderate risk wastes (pesticides and other chemicals), should be handled as appropriate for that type of waste and so are addressed by other sections of this Comprehensive Solid Waste Management Plan (CSWMP).

The amount of agricultural waste generated in Skagit County was estimated from the County's crop acreage and livestock data using typical waste generation rates. As shown in Table 9.1, the

Table 9.1. Estimated Quantity of Agricultural Wastes in Skagit County.

Crop	Annual Waste Generation Factor[1]		Number of Units[2]		Annual Tonnages (TPY)	
Hay and Pasture	1.5	tons/acre	28,520	acres	42,780	
Grains	1.5	tons/acre	4,520	acres	6,780	
Orchards	2.25	tons/acre	400	acres	900	
Potatoes, Vegetables	3.0	tons/acre	23,690	acres	71,070	
Berries	1.5	tons/acre	3,000	acres	4,500	
	Total Harvested Cropland:		60,130	acres		
			Subtotal, Vegetative Residues:		126,030	TPY
Livestock						
Beef Cows	11.3	tons/head	3,840	head	43,400	
Dairy Cows	14.6	tons/head	20,610	head	300,900	
Other Cattle	11.0	tons/head[3]	30,735	head	338,090	
Hogs and Pigs	2.2	tons/head	480	head	1,060	
Sheep and Goats	0.7	tons/head	640	head	450	
Horses and Mules	9.1	tons/head	1,080	head	9,830	
Chickens	42.0	tons/1,000 birds	450,000[4]	birds	18,900	
			Subtotal, Livestock Residues:		712,630	TPY
	Total Annual Waste Amount				**838,660 tons/year**	

Notes:
1. Waste generation factors for crops are from "Solid Waste Generation Factors in California" (CSWMB 1974), and the generation factors for livestock are from "Agricultural Waste Issue Paper" (KC 1998).
2. Number of units is from the 1997 Census of Agriculture (USDA 2000). Data is not available for some crops due to confidentiality issues.
3. Generation rate for "other cattle" varies from 6.4 tons per year for immature cattle to 15.5 tons per year for replacement heifers. Figure shown here is a mid-range value.
4. Data shown for number of chickens is only for layers because data for pullets is not available (but the number of pullets could be up to a few hundred thousand more chickens).

TPY = tons per year.

An unknown amount of nursery and greenhouse waste is also generated in Skagit County, but data is not available on acreage devoted to this activity or on a typical waste generation rate for this type of crop.

amount of agricultural wastes is significant. Current practices result in some materials that require off-site handling or disposal, but in many cases agricultural wastes are handled on the farm or ranch that generated the wastes. In these cases, the wastes are incorporated into the soil to enhance fertility or handled on-site in other ways. This approach cannot be taken with vegetative residues from bulb growers, however, due to concerns about disease transmission. In this case, a substantial amount of material must be taken off-site and handled in a way that prevents spread of contagious diseases. In the past, this has meant disposal in a landfill, but composting is becoming increasingly popular. For wastes handled off-site, manure and vegetative wastes can be brought to one of several permitted composting operations in Skagit County. Food processing residues are also a concern, but are discussed under industrial wastes (see Section 9.10).

9.2.2 Needs and Opportunities for Agricultural Wastes

A significant issue for manure handling and application is the potential contamination of nearby surface waters. There is growing concern throughout Washington State over the impacts posed by agricultural waste to water quality and salmon habitat. The awareness of this issue has been raised by the listing of several salmon runs as endangered species in March 1999, thus triggering a broad range of remedial activities for farms and urban areas. While on-land application of manures and other agricultural wastes is generally an acceptable practice, the timing for this can be a problem due to wet weather and seasonal fluctuations in nutrient demand by the plants receiving the applications. Improperly-managed land applications have also caused vermin and odor problems.

Chicken manure from the large egg and fryer operations in the County is a major contributor to these problems, due in part to the lack of available land at these operations to absorb the manure. Lack of adequate storage capacity to hold the manure over the winter months is also part of the problem. These factors lead to excess manure being placed on small plots of land ("nutrient overloading") and manure being placed during the winter when the nutrients are prone to be washed away instead of being taken up by plants.

A few complaints are received each year about odors, flies and other pests, and possible water quality impacts (see also the discussion of food processing wastes in Section 9.10). The Washington Department of Ecology (Ecology) investigates complaints about manure and crop residue handling problems that may affect water quality and has the authority to require remedial actions or levy fines. Farmers and ranchers are generally given a chance to avoid fines by developing and implementing a "farm management plan" that addresses proper management of agricultural wastes. Composting of agricultural wastes is addressed by State standards adopted in early 2003 (WAC 173-350-220).

9.2.3 Alternatives for Agricultural Wastes

Alternatives for agricultural wastes include improvements in practices such as land application and incorporation methods, composting, and other processing systems. In addition to improved on-site handling, greater use of licensed composting and other off-site facilities could also be done.

To address concerns about water quality impacts, farms and ranches in Skagit County have started to implement "best management practices" (BMPs) to prevent pollutants from entering surface waters. These practices often involve the use of low-technology approaches such as installing fences to keep livestock away from waterways, rotating use of pastures, and planting cover crops.

Dairy and poultry farms are required to take additional steps to ensure proper management of manure. These farms were required to develop a "nutrient management plan" by 2002. If the

farmers choose to compost the manure and use it on their own property, then no permits are required. If the compost is to be sold or moved off-site, however, then the farm (or other composting operation) must be permitted by the County Health Department. Small agricultural operations or "hobby farms" also have manure handling problems, and the Skagit Conservation District is working with landowners to develop and implement BMPs for hobby farms.

9.2.4 Recommendations for Agricultural Wastes

In recognition that the problems with agricultural wastes are being addressed by others, the following recommendation is made:

S1) Ongoing efforts by Ecology (to prevent water quality impacts) and the Conservation District (to promote best management practices) should be encouraged and supported as appropriate.

9.2.5 Implementation Schedule, Costs and Monitoring/Evaluation Methods for Agricultural Wastes

This is an ongoing activity with no or minimal costs to the solid waste system. The success of the efforts by Ecology and the Conservation District should be evaluated every few years, in terms of their effectiveness in dealing with problem sites and reduction of complaints overall, and additional alternatives explored should there be significant and persistent problems.

9.3 ANIMAL CARCASSES

9.3.1 Existing Conditions for Animal Carcasses

The primary generators of animal carcasses in Skagit County include:

Animal Shelter: The Skagit County Humane Society has animal mortalities picked up by a rendering service.

Roadkill: Dead animals collected from the roadside are buried, picked up by a rendering service or cremated through local veterinary offices, depending on where the animal is found (which determines whether the State, County or Cities have jurisdiction) and the type of animal (rendering companies are prohibited from accepting wild game).

Veterinary Offices: For the occasional animal that may die in their care, local veterinarians generally use a rendering service or the animals are cremated.

Household Pets: As with farm animals (see below), pets are allowed to be buried on private property as long as there is room for this and if safe distances are maintained from surface waters or wells. There is also a privately-owned pet cemetery that accepts household pets for burial.

Farms: The few animals that die on farms are allowed to be buried on-site as long as safe distances are maintained from surface waters or wells. Dairy cows and other animals are usually "retired" when they become non-productive or at a certain age, and are slaughtered for their meat at that time. The animals that die from accidents or disease are handled by rendering companies or buried on the farm.

9.3.2 Needs and Opportunities for Animal Carcasses

Carcasses of bald eagles (or golden eagles or other threatened/endangered species) require special handling. The U.S. Fish and Wildlife Service should be notified of any such animals that are found. Eagle carcasses are sent to the National Eagle Repository in Denver, Colorado and stored there temporarily. Feathers and other parts are made available on a first-come, first-served basis (there is currently about a 2.5-year waiting period) to Tribal members (must be an enrolled member of a federally-recognized Tribe) for ceremonial purposes.

Future needs for disposal of animal carcasses could increase dramatically if local cases of avian flu or BSE ("mad cow disease") happen to occur, but the response actions for these types of incidents would not be within the control of local authorities, and are also beyond the scope and jurisdiction of this CSWMP.

Current methods used for disposal of animal carcasses in Skagit County are effective and no additional options need to be addressed at this time.

9.4 ASBESTOS

9.4.1 Existing Conditions for Asbestos

Asbestos is a fibrous mineral that was previously considered to be useful for many different applications, especially in fireproofing, until it was discovered that it causes lung cancer. The problem is caused by the fact that the fibers are "friable", or crumble easily into very small particles that then become airborne and lodge in the lungs after being inhaled. Because pure asbestos was rarely used, the waste material of actual concern here is any material that contains asbestos in quantities greater than one percent and that is friable.

There are some materials where the asbestos is not friable and so pose less of a health risk. These types of products, such as floor tile (asbestos was used in only a very small percentage of tile) and house shingles (again only a small percentage, most commonly found as an exterior wall covering), are relatively inert as long as these are not sanded, drilled or otherwise disturbed. In other cases, a strategy that was often used in the past was to "encapsulate" asbestos in place, by spraying it with a binder or otherwise sealing it off, rather than disturbing it through removal methods.

One local facility in Burlington will accept small amounts of asbestos for disposal. The fees currently charged (as of mid-2000) for this service are $150 - $180 per cubic yard, with a $50 minimum fee. A facility in Whatcom County will also accept asbestos, again with a minimum fee of $50.

9.4.2 Needs and Opportunities for Asbestos

The use of asbestos was discontinued several years ago, but asbestos-containing materials can still be found in some building materials and other applications. The strategy of encapsulating asbestos is generally effective for preventing human exposure but this practice also has the unfortunate effect of delaying the removal and proper disposal of asbestos-containing materials. In other cases, asbestos-containing materials have simply not been disturbed unnecessarily or even discovered yet. Hence, even though the use of asbestos was discontinued many years ago, disposal capacity for asbestos-containing wastes will be needed for many more years.

Information provided by the Northwest Air Pollution Authority (NWAPA 2000), which regulates handling and disposal of asbestos-containing materials, indicates that the amount of asbestos-containing wastes generated over the past ten years has not changed much. About 25 to 30 notifications are received each month from people or businesses that are removing asbestos (anyone removing asbestos is required to call and notify NWAPA). Good records on the amount of locally-generated asbestos-containing wastes exist for the period 1989 through 1994, when Inman Landfill accepted this material, but accurate records are lacking after 1994. In 1989, 1990 and 1991, the landfill received 511, 267 and 318 tons of asbestos-containing wastes, respectively. Beginning in 1992, asbestos wastes were restricted to only small loads from residential sources, and the annual amount accepted by the landfill dropped to one to two tons, or about 15 to 30 cubic yards, per year.

Skagit County is currently without an inexpensive local disposal option for asbestos. The minimum fees charged by the two available facilities, although justified on the basis of paperwork and other handling requirements, are a problem for small generators. Larger amounts of asbestos-containing wastes generated in the County can be taken to King County's Cedar Hills Landfill or other facilities for disposal. This approach appears to be working adequately for asbestos removal contractors (although it increases the cost of their services), but smaller quantities of asbestos may be improperly disposed as a result of the lack of a convenient and inexpensive disposal option.

9.4.3 Alternatives for Asbestos

Asbestos could be included in the waste export system, as some other counties are currently doing. To include asbestos in the waste export system requires that it be placed in a separate container, frequently a 20-yard container, and be properly manifested and meet other requirements. At the regional landfill, the asbestos is placed in a separate area (or cell) of the landfill. Asbestos is not currently addressed by the County's contract with RDC, but for other counties the cost of exporting asbestos-containing wastes is about twice the cost of "regular" garbage.

Another alternative might be to collect small (residential) quantities of asbestos at the Household Hazardous Waste Collection Center. This would lead to several requirements such as a separate container and disposal contract, additional training for the staff, and other steps that would make this a costly service. Staff of the Collection Center report that this could be done but that there does not appear to be a demand for it.

If necessary in the future, both of the above options could be considered as contingency plans to address any disposal problems that may occur. The actual steps taken to respond to any future disposal problems will depend on the nature and cause of the problem.

9.4.4 Recommendations for Asbestos

No recommendations are being made at this time for asbestos.

9.5 BIOMEDICAL WASTES

9.5.1 Existing Conditions for Biomedical Wastes

Biomedical wastes are the potentially infectious and injurious wastes from medical, veterinary, or intermediate care facilities, as well as "sharps" (syringes) from residential sources. These wastes require special handling and disposal practices to protect the health and safety of both medical and

solid waste disposal personnel. Medical facilities have the responsibility to determine which medical wastes are considered biomedical, and then arrange for the proper handling and disposal of these wastes. All syringes and other "sharps", plus wastes that have had contact with blood and certain other bodily fluids, are generally classified as biomedical wastes. These wastes should be placed in special bags or rigid plastic containers, and then removed by licensed biomedical waste collectors. Body parts are also classified as biomedical wastes, and are labeled as "pathological" for disposal purposes.

The Washington State Utilities and Transportation Commission (WUTC) regulates transporters of infectious wastes. Their regulations also allow regular solid waste haulers to refuse to haul wastes that they observe to contain infectious wastes as defined by WUTC.

There are several medical clinics and similar generators of biomedical waste in Skagit County. These facilities use the services of licensed biomedical waste haulers to transport and dispose of this waste. Body parts are handled by the same haulers, although are typically packaged separately, labeled as pathological, kept frozen until shipment, and then are incinerated without any additional handling at medical waste incineration facilities. Other biomedical waste generators in the County include doctor's offices, dental clinics, and veterinary offices, which generally also use a licensed biomedical waste hauler.

Another source of biomedical wastes is home health care. In the more serious health cases, biomedical wastes from this source are often generated under a nurse's supervision and are taken back to the primary hospital or other facility that employs the nurse. In other cases, however, the sharps from home use may not be disposed of properly. "Residential sharps" have been found improperly disposed in several locations, including showing up in recycled materials and in garbage. These syringes are either found loose or inside PET bottles, the latter being the method of disposal of residential sharps that was previously promoted and is still an acceptable practice if the PET bottles aren't then turned in for recycling.

9.5.2 Needs and Opportunities for Biomedical Wastes

The disposal of residential sharps is an area where improvements are needed. but proposed changes to the local solid waste code (Chapter 12.16 of the Skagit County Code) address proper disposal methods for residential sharps.

9.5.3 Alternatives for Biomedical Wastes

Improved disposal practices for residential sharps could be accomplished through:

- increased education programs for household sharps disposal to promote safe handling and disposal of sharps.
- a collection program could be instituted, although this could be an expensive option. In this case, the collection program might best be accomplished through a manufacturer take-back program or deposit system, or by having local drugstores provide sharps collection and disposal for their own customers.
- increased enforcement activities and larger penalties could be implemented (although in most cases, the source for the sharps cannot easily be determined).

9.5.4 Recommendations for Biomedical Wastes

The following recommendation is made for biomedical wastes:

S2) The local solid waste code should be updated to define where and how biomedical wastes can be handled at Skagit County facilities.

9.5.5 Implementation Schedule, Costs and Monitoring/Evaluation Methods for Biomedical Wastes

Updating the solid waste code is expected to occur in 2004, and should be followed by notices and public education materials to inform people of the new requirements. The cost for this will be about $3,000, anticipated to be absorbed by the education budget, plus staff time for the County's Recycling and Waste Reduction Educator and/or Health Department. The success of this approach should be evaluated in 2005, based on a reduction of incidences or complaints regarding syringes and other biomedical wastes founds improperly disposed, and additional measures considered at that time if necessary.

9.6 BIOSOLIDS (SEWAGE SLUDGE AND SEPTAGE)

9.6.1 Existing Conditions for Biosolids

Sewage sludge that has been treated to meet standards for beneficial use (such as land application) is called "biosolids." This type of material is specifically excluded from the definition of solid waste, although other wastes from the wastewater treatment process (such as grit, screenings, sludge and ash) are still classified as solid wastes. Biosolids are defined by WAC 173-308-080 as "municipal sewage sludge that is a primarily organic, semisolid product resulting from the wastewater treatment process, that can be beneficially recycled and meets all applicable requirements under this chapter. Biosolids includes a material derived from biosolids, and septic tank sludge, also known as septage, that can be beneficially recycled and meets all applicable requirements." Biosolids are further categorized by federal regulations into Class A and Class B based on pathogen reduction measures and metals contamination levels. The federal regulations (40 CFR Part 503) are self-implementing, which means that the requirements must be met regardless of the permit status of a facility.

Land-applying septage is permitted under current State and Federal regulations, but County code requires septage to be treated at wastewater treatment plants unless the Health Department grants specific permission. In cases where permission is granted for land application of septage, the septage must be pre-treated (such as screening and lime treatment).

Most of the biosolids in the County are generated by municipal treatment plants and are recycled through land application. Adequate farmland exists in the County to handle all of the locally-generated biosolids through land application, but most of the farms in the County are relatively small. For this and other reasons, the City of Mount Vernon has chosen to ship their biosolids to farms in eastern Washington under an umbrella contract with King County's Wastewater Treatment Division. Sedro Woolley ships some of their biosolids out-of-county but also has land application sites that are used for a portion of it (capacity and timing permitting). Burlington is land-applying their biosolids outside of the county. One city, Anacortes, incinerates their sludge.

The City of LaConner composts their biosolids and sells the finished compost to the public. This facility is publicly owned and privately operated, and composted about 75 tons of biosolids (on a dry weight basis) in 2000. The biosolids are mixed with yard debris (dropped off by the general public for a fee), wood chips, sawdust and hog fuel.

9.6.2 Needs and Opportunities for Biosolids

In general, biosolids in Skagit County are handled through beneficial use programs and do not significantly impact the solid waste system. Increased septage processing capacity may be needed in the future as owners of septic systems are encouraged to pump more frequently.

Modern treatment processes and strict controls on discharges to sewers have turned a problem waste (sewage sludge) into a nutrient-rich resource. This is a resource that must still be managed properly but that has a number of potential applications in agriculture, forestry, landscaping, gardening, soil improvement, and land reclamation.

While biosolids are being properly handled in most cases, there are still problems with human and animal feces (i.e., disposable diapers and pet feces). Diapers and pet feces can be found mixed with regular garbage, at roadsides as litter, in parks and other public trash cans, and in other places where they present a potential problem for human exposure to disease-causing organisms. While there have been some pilot programs conducted in the U.S. to separately collect and dispose of these wastes, including pilot programs to recycle disposable diapers, no clear solution currently exists to address these wastes.

9.7 CONSTRUCTION AND DEMOLITION (C&D) WASTES

9.7.1 Existing Conditions for C&D Wastes

Construction and demolition (C&D) wastes are defined simply as the wastes that are generated from construction and demolition activities. These wastes consist primarily of new and used building materials (wood, sheetrock, pipe and other metals, shingles, etc.), concrete and asphalt. Land clearing wastes, including soil, stumps and brush, are also sometimes included in this category, but these materials are rarely treated as a waste. To the extent these materials are taken off-site, the materials can be handled as a valuable product, clean fill or inert wastes (in the case of clean soils), or as a wood waste (in the case of stumps and other natural woods, see Section 9.16).

A category closely related to C&D is “inert wastes.” Inert wastes are defined to include some types of C&D wastes, such as concrete and asphalt, as well as certain other materials. The regulatory status of inert wastes differs from C&D wastes, with disposal requirements less strict (see Section 9.11 for more details on inert wastes).

The total amount of C&D waste generated in Skagit County is unknown, but for most communities C&D is generated in quantities equal to half or more of the regular solid waste stream. C&D wastes are generated at a rate that is proportional to construction activity in the County, and so annual amounts will vary depending on population growth, the economic climate and other factors. Large commercial developments and other one-time projects can have a significant impact on annual amounts, as can disasters such as floods. Table 9.2 provides information on the number of building permits issued in the County, as an indication of the amount of C&D waste generated over the past 14 years. Note that this data is only for the unincorporated areas and a few of the towns, and does not include permits in the cities that issue building permits.

Table 9.2. Number of Building Permits in Unincorporated Skagit County.[1]

Year	Single-Family Permits	Garages	Mobile Homes	All Other[2]	Totals
1986	140	152	87	167	546
1987	214	191	91	232	728
1988	221	192	124	269	806
1989	293	226	168	249	936
1990	294	227	169	257	947
1991	295	228	170	265	958
1992	363	294	224	521	1,402
1993	346	307	250	624	1,527
1994	340	287	287	446	1,360
1995	262	311	209	442	1,224
1996	295	263	216	426	1,200
1997	216	278	207	346	1,047
1998	215	207	177	471	1,070
1999	202	213	181	387	983

Notes: Figures are from Skagit County Planning and Permit Center (SC 2000).
1. Data is only for unincorporated Skagit County and a few towns, does not include building permits issued by cities and towns with jurisdiction over building permits in their areas (Anacortes, Burlington, Concrete, Hamilton, Mount Vernon and Sedro Woolley).
2. "All other" permits include multi-family dwellings, residential additions, agricultural, additions other than garages, commercial, industrial, school/mercantile and miscellaneous.

Construction and demolition waste is handled in a variety of ways. Some of this waste is reused or recycled at facilities in and outside of the County, some of it is handled on-site at the construction site, and a portion of it is brought to the Skagit County Recycling and Transfer Station for disposal through waste export. Reuse activities include a retail store in Bellingham, and private efforts by construction companies and others. Material handled on-site is sometimes burned or buried, although these are not approved practices. In some cases, however, clean wood scraps are legitimately being diverted for use as firewood. Composting clean wood waste is also an option and some of the composting facilities in the County are currently doing this. Some wood waste is also converted to hog fuel and shipped to the co-generation plant in Everett (which meets Ecology's current definition for "waste diversion" but not for recycling). Finally, a portion of C&D waste also ends up at illegal dumps in the County or is hauled to disposal sites in other counties such as the C&D landfill in the Bellingham area.

9.7.2 Needs and Opportunities for C&D Wastes

A significant need for C&D waste is that more could be handled by existing reuse and recycling opportunities, and additional reuse and recycling opportunities would also be helpful.

Large amounts of C&D wastes delivered to the Skagit County Recycling and Transfer Station are a problem because the wastes do not compact well, and so make it difficult to achieve high load weights (thus increasing the County's costs for exporting wastes). The usual strategy of mixing the C&D wastes with "regular" garbage is not effective when large amounts of C&D wastes are delivered at one time.

Currently, a portion of the C&D wastes is ending up at illegal dumps throughout the County. Greater control or more convenient recycling and disposal opportunities for this material would help prevent it from being illegally dumped.

Recycling drywall through land application on farms is sometimes considered, but agricultural uses of drywall can create very odorous conditions. Generally this is the result of drywall getting into lagoons where anaerobic conditions exist, and then sulfides are created and released. In addition, soils in western Skagit County are not in need of pH adjustment, so drywall applications in that area are not a beneficial use.

Construction projects receiving State funding are required to use recycled-content materials, but only if those are determined to be cost-effective and available.

9.7.3 Alternatives for C&D Wastes

Many of the potential alternatives for C&D waste are already being employed in Skagit County, including deliveries to disposal facilities, disposal on-site at the point of generation, and recycling. Possible reuse and recycling options for C&D wastes are summarized below.

Salvage for on- and off-site reuse: this option generally applies to demolition projects although a small amount of reusable materials and products are also generated at construction sites. To be effective, salvaging requires pre-demolition removal of reusable materials and hence some allowances in the project's schedule. Off-site reuse can be accomplished through a variety of means, including reuse stores and private efforts.

On-site crushing and grinding for reuse and recycling: this generally applies to concrete and asphalt, which can be crushed to serve as road base or replace other basic materials, although in some cases wood and other materials can also be handled on-site.

Source-separation for off-site processing: source separation at construction and demolition sites can allow recycling of wood, sheetrock, cardboard and other materials. There are opportunities for specific materials in the C&D waste stream, such as a national recycling system for ceiling tiles.

Mixed C&D processing off-site: processing of mixed C&D wastes is a convenient means to handle large amounts of wastes, but requires a facility or facilities that are properly equipped and operated to handle this waste. It is interesting to note that this approach was recommended by the previous Skagit County Solid Waste Management Plan (Recommendation #10.5-3), as well as by Seattle's current plan and other plans.

Other options include increased education and promotion of recycling and reuse, collection containers for reusable and/or recyclable C&D materials at solid waste facilities, and a regional landfill for C&D wastes. The amount of C&D wastes that are recycled and reused could be increased by more education and promotion of existing opportunities for recycling and reuse. The County Public Works Department and SWAC currently produce a brochure that shows the recycling options for C&D. This brochure is helpful but could be distributed more widely. The

County Planning Department distributes it with each permit but not all of the city planning and building departments distribute it when they issue a building permit. A primary strategy would be to get contractors and building owners to plan ahead for recycling and reuse.

C&D wastes could also be sent to Canadian facilities for processing (recycling) or disposal. With a favorable monetary exchange rate, labor and other costs in Canada are relatively lower than in the U.S. and thus may offset increased transportation costs.

9.7.4 Recommendations for C&D Wastes

The following recommendations are made for C&D wastes (see also Recommendation #WR3):

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, including possible measures such as:

- requiring that a "solid waste and recycling plan" be submitted with building permit applications, especially for projects that will cost in excess of $15,000.
- implementing a deposit system, with the deposit refunded upon documentation of proper waste disposal (such as a receipt for disposal costs).

S4) Recognition programs should be considered for contractors with a proven history of proper disposal.

S5) Additional education should be conducted on the need for proper disposal and the problems associated with illegal dumping (see also Recommendation #PE3).

9.7.5 Implementation Schedule, Costs and Monitoring/Evaluation Methods for C&D Wastes

Requiring information about recycling of construction and demolition wastes as part of the permitting process should be implemented by the end of 2005, which should leave time to forewarn builders and others about the new requirement. Monitoring and evaluating the results of this approach should be a responsibility of the SWAC and could be based on anecdotal evidence, but a survey 6 to 12 months after implementation would provide better data and should be considered.

The recognition program is contingent on the hiring of a Recycling Coordinator, and should be implemented by 2005. The cost for this should be minimal, consisting of staff time and minor expenses (in other words, the recognition program should primarily make use of existing tools). Monitoring the success of this approach will be largely based on anecdotal evidence, but some method should be used for evaluating and adjusting the approach as appropriate.

The additional education for proper handling of construction and demolition debris should be built into the plans that are developed as a result of Recommendation #S3, and should also represent a particular emphasis for illegal dumping education in general (see Recommendation #PE3). As a part of these other efforts, there should be no additional costs or monitoring requirements for this recommendation (i.e., the costs and monitoring methods are included in activities conducted for Recommendations #PE3 and #S3).

9.8 DISASTER DEBRIS

9.8.1 Existing Conditions for Disaster Debris

There are a number of possible disasters that could occur in Skagit County that would generate a very large amount of material. While this CSWMP cannot take the place of a proper emergency-preparedness plan, it can help provide guidance for the wastes that result from such events.

Potential types of disasters that could create a large amount of solid waste in Skagit County include floods, earthquakes, landslides, and wind storms. Disasters that generally create smaller amounts of waste, such as plane and train crashes, are not addressed here. Any problems related to large industries in the County, most notably oil spills or problems associated with the refineries, are assumed to be adequately addressed by various plans already in place by the appropriate industries and agencies.

9.8.2 Needs and Opportunities for Disaster Debris

The types and condition of the wastes that result from a disaster will vary tremendously depending on the nature and extent of the disaster that occurs. For the different types of disasters, however, there are a number of common things that will be needed:

- one or more central staging areas (although for disasters that occur in small area, staging areas may not be needed), especially if recycling or recovery is going to be accomplished. Staging areas could also act as temporary storage areas for relatively inert wastes.
- additional disposal capacity.
- equipment to deal with the additional waste.
- the administrative structure and policies for guiding response actions.
- for proper management, including recycling, of disaster debris, timely and effective communication is critical.

9.8.3 Alternatives for Disaster Debris

Possible alternatives for management of disaster debris could include:

- recycling.
- waste export.
- temporary operation of an inert landfill, although the feasibility of this approach is limited because in most cases the wastes involved would not be suitable for an inert landfill. Only a few types of materials (concrete, soil, mud, some types of ash, etc.) could be placed in an unlined landfill.
- bringing additional materials to Inman Landfill or another site, although this would trigger new requirements and require adhering to current standards, which would be prohibitively expensive in almost all cases.
- temporary storage areas for non-putrescible wastes.

The above options could be used for in-county facilities as well as out-of-county facilities. In the case of a localized disaster, the out-of-county facilities could provide important back-up or overflow capacity.

A related but distinct waste stream is sometimes created by the response to a disaster, such as the piles of sandbags created by flood control measures. Disposal options for these wastes will again

depend on the type of wastes, location, condition and timing, but the reuse or recycling of these wastes should be considered when possible.

9.8.4 Recommendations for Disaster Debris

The following recommendation is made for handling of disaster debris:

S6) In the event of a disaster, this CSWMP recommends using public properties for temporary storage/staging areas, and further recommends recycling where feasible. Materials that cannot feasibly be recycled should be disposed of properly.

9.8.5 Implementation Schedule, Costs and Monitoring/Evaluation Methods for Disaster Debris

As disaster-preparedness plans are developed by others, these plans should attempt to identify potential storage/staging areas for the various scenarios being addressed, as well as disposal and recycling options. The cost of this should be minimal and monitoring/evaluation methods are likely not possible (except "after the fact" performance evaluations should a disaster occur).

9.9 GREASE

9.9.1 Existing Conditions for Grease

Grease is generated primarily by restaurants, cafeterias and other food services. It is not easily handled by the solid waste system because it is semi-liquid and very messy. It also should not be put into sewer or septage systems because it causes serious problems there. Fortunately, a separate collection system is available for handling grease, through the collection efforts of rendering companies. At least three rendering companies are currently collecting grease in Skagit County, with other companies removing grease from interceptors.

To be recycled, grease must be collected separately. This is typically accomplished through 55-gallon drums, which are removed and replaced when full, or larger containers, which are pumped out as needed. The grease is processed to remove contaminants and used to make an animal feed supplement. Grease that is mixed with septage cannot be recycled. Grease removed from interceptors (grease traps) cannot be recycled if it has come into contact with human wastes.

9.9.2 Needs and Opportunities for Grease

The value of grease dropped in 1999 and has increased somewhat since then but has not risen back to the previous level. The low market value of grease has caused collection companies to institute a charge for their service (about $20 to $25 per month), whereas previously they were able to collect the grease for free. The fee sometimes causes restaurants and other grease generators to seek cheaper alternatives, which can lead to various problems.

Several different agencies or companies may be involved when grease is improperly disposed. Grease that is dumped into sewers must be addressed by municipal wastewater agencies. Grease that is improperly disposed with garbage may be addressed by municipal or private garbage collection companies. Improper handling practices by restaurants may be addressed by the Health Department. Better communication between these different groups may help address repeat offenders.

9.9.3 Alternatives for Grease

Few alternatives exist for handling grease outside of the existing services discussed above, although conversion to biodiesel is being examined by some. There are a variety of options for assisting with providing these services, such as establishing a franchise to make the services more cost-effective or providing a financial subsidy through contracts and other means, but this level of involvement with the existing private efforts would be difficult to justify.

Through public education activities and possibly enforcement, restaurants and other food services could be encouraged to handle grease in an appropriate manner.

9.9.4 Recommendations for Grease

The following recommendation is made for grease:

S7) This CSWMP recommends improved communications between the Health Department, other municipal agencies and garbage collectors dealing with improper disposal of grease.

9.8.5 Implementation Schedule, Costs and Monitoring/Evaluation Methods for Grease

This is essentially an ongoing process with no additional costs, except for minimal impacts on staff time and expenses for improved communications. The success of the joint efforts should be evaluated every few years, in terms of the effectiveness in dealing with specific problem sites and the reduction of problems overall. Stricter measures should be explored if there are significant and persistent problems.

9.10 INDUSTRIAL WASTES

9.10.1 Existing Conditions for Industrial Wastes

Two types of industrial wastes have been identified in Skagit County as being potentially problematic:

- food processing residues.
- sludges and other wastes generated at the Tesoro and Shell refineries.

Food processing residues are largely the result of processing locally-grown potatoes and other produce. These residues are organic and are typically handled through land application. Land application is an acceptable practice, and in fact helps to return nutrients back to the land, but there are occasional incidents where this material is improperly managed.

The refineries generate a variety of wastes, including trash typical of offices and other commercial activities that are handled through the County's solid waste system; contaminated soils and water that are handled on-site through land farming and other methods; and petroleum sludges and other special wastes that are shipped to out-of-county facilities licensed to handle these materials.

9.10.2 Needs and Opportunities for Industrial Wastes

Improper handling of food processing residues sometimes creates problems, such as when piles are placed too close to surface water (with the subsequent concerns about water quality impacts). In other cases, piles are left for too long before being incorporated, causing odor and pest problems.

The refineries' wastes are being adequately handled, largely through methods outside of the County's solid waste system (using management and disposal methods appropriate for the types of wastes), and so no alternatives or recommendations for this type of waste are provided at this time.

9.10.3 Alternatives for Industrial Wastes

For food processing wastes, alternatives include improved land application and incorporation methods, composting, and other processing methods.

9.10.4 Recommendations for Industrial Wastes

The following recommendation is made for industrial waste:

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.

9.10.5 Implementation Schedule, Costs and Monitoring/Evaluation Methods for Industrial Wastes

The Conservation District currently assists with food processing wastes if requested to do so by the farmers or companies involved. The above recommendation is based on the idea that a more proactive approach would lead to more effective solutions. The above recommendation is also based on the idea that the Department of Ecology, through their sustainability efforts and other programs, could help develop handling methods for food processing wastes that would make more effective use of the potential resource value contained in this waste stream. This process should be begun soon, but time will be needed to make the long-term changes that are implied in the above recommendation. Evaluation should occur with the next update of this CSWMP, but ongoing monitoring of odor and pest complaints (by the Skagit County Health Department) may indicate the need for additional actions to address problem sites before that time.

9.11 INERT WASTES

9.11.1 Existing Conditions for Inert Wastes

The State rules adopted February 2003, Ch. 173-350 WAC, have created a new category of wastes called "inert wastes." Inert wastes are defined to include some types of construction wastes, such as concrete, asphalt, brick, tile, wood, roofing and demolition wastes, but specifically excludes sheetrock. Inert wastes also include glass, stainless steel, aluminum, and other wastes that can meet the criteria for inert wastes (will not burn, creates no harmful leachate or gases, etc.).

The State rules were developed to allow easier disposal of wastes that are truly inert. Location standards for inert waste landfills are much less restrictive than other disposal facilities, and no post-closure activities are required.

Several businesses are recycling inert waste such as asphalt and concrete back into the production of asphalt and concrete products. There is one licensed inert waste landfill in the County, but they have yet to begin accepting wastes. One of the refineries also operates an inert landfill, but only for their own wastes.

9.11.2 Needs and Opportunities for Inert Wastes

The ability to handle a portion of construction and certain other wastes as inert, with less-stringent requirements for proper disposal, represents an economic opportunity to reduce disposal costs for the generators of these wastes. Savings in disposal costs are not guaranteed, however, since even a less-regulated site would incur development and other fixed costs. For a small amount of waste, these fixed costs may lead to a relatively high cost per ton and other disposal methods may actually be less expensive. If disposal costs are less, however, then recycling may be less likely to occur.

The total amount of inert wastes in Skagit County is uncertain, but can be estimated based on data from other areas. A waste composition report for Snohomish County (GS 1998), for instance, shows that the amount of ceramics, rocks, bricks, concrete, asphalt and soil in that county's waste stream is about 2.0% by weight. This would be the equivalent of about 1,800 tons per year in Skagit County (based on estimated 90,000 tons disposed in the year 2002).

9.11.3 Alternatives for Inert Wastes

The designation of certain wastes as "inert" essentially provides an alternative to the current disposal methods for these wastes. Otherwise, the alternatives for inert wastes are similar to alternatives for other wastes, including reuse, recycling or disposal through waste export and other disposal systems.

9.11.4 Recommendations for Inert Wastes

There is one recommendation being made for inert wastes:

S9) Recycling of inert wastes should be encouraged.

9.11.5 Implementation Schedule, Costs and Monitoring/Evaluation Methods for Inert Wastes

This should be an ongoing effort conducted by everyone involved in the solid waste system (Skagit County Public Works Department, Health Department, the cities, Waste Management and other private companies) as any opportunities arise. A more proactive approach could be conducted but is contingent on the hiring of a new staff, the Recycling Coordinator (see Recommendation #R3). The direct costs for this recommendation are minimal, and no specific monitoring/evaluation methods are being proposed at this time.

9.12 MODERATE RISK WASTES (MRW)

9.12.1 Existing Conditions for MRW

Industries, farms, businesses, and homes throughout Skagit County produce small amounts of hazardous wastes. For most of these, the amount of hazardous waste produced falls below regulated quantities and so is classified as a "moderate risk waste" (MRW). Moderate risk waste includes household hazardous wastes (wastes produced by residential activities that would be

hazardous waste except that by definition these are exempt from regulation) and wastes from small-quantity generators (businesses that produce less than 220 pounds of dangerous waste or 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). The latter is also called a "conditionally-exempt small quantity generator" (CESQG) 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.

Moderate risk wastes generated in Skagit County can be handled through the Household Hazardous Waste Collection Center (Collection Center) at the Skagit County Recycling and Transfer Station. The Collection Center is open five days each month and is staffed with Skagit County employees. A variety of materials are handled by this facility, including automotive products, paint and paint-related materials, lawn and garden chemicals, cleaners, mercury switches, and many miscellaneous materials. Fluorescent tubes and propane tanks are not accepted at this time, and people with propane tanks are referred to one of the local dealers. Waste oil, antifreeze and car batteries are collected at the Sauk and Clear Lake sites.

In 2003, 3,125 households delivered waste to the Collection Center. People brought enough waste chemicals to the Collection Center that staff processed and shipped 449 55-gallon drums. In addition, 18,200 gallons of waste motor oil were shipped for re-refining. The amount of automotive batteries recycled was 108 tons.

Only household hazardous wastes are accepted for no charge at the Collection Center. Wastes from small quantity generators are accepted for a charge that varies depending on the type and quantity of the waste, and the Collection Center is available only for use by businesses that qualify as Small Quantity Generators (SQGs) under State law. Charges for SQGs range from $3.00 to $36.00 per gallon of waste. In 2003, businesses used the Collection Center 85 times, and they delivered over 1,525 gallons of hazardous waste.

In addition to disposal services, businesses are also provided with technical assistance in complying with the Washington State Dangerous Waste Regulations. The County's Hazardous Waste Specialist provided technical assistance through telephone consultations to 135 small businesses in 2003. In addition, the Hazardous Waste Specialist provided three on-site consultations.

The Chemical Exchange Building, located next to the Collection Center, measures 10 feet by 12 feet and is used to temporarily store reusable chemicals that have been brought to the Collection Center. Reusable materials, such as paints, garden chemicals, and auto products, are set aside and are made available free of charge to individuals that come to the Collection Center. During 2003, an estimated 700 gallons of latex and oil based paint were picked up from the exchange building. Additionally, approximately 225 gallons of various usable automotive, gardening and household cleaners were taken by customers at the Collection Center.

Ongoing funding for the MRW Facility is provided through fees charged to some users, a portion of the tipping fee, and Ecology grant (CPG) funds.

Public education and information about the Household Hazardous Waste Collection Center and related programs is done through the County's recycling education program. Others in the County, including the garbage hauler, recycling companies, other county solid waste staff and public health officials, also provide information on proper handling and disposal of moderate risk wastes.

9.12.2 Needs and Opportunities for MRW

There are no significant problems known to exist with MRW handling and disposal. Although there is not a local option for the disposal of fluorescent tubes, grant and other funds are being sought to provide for disposal of tubes at the Collection Center.

9.12.3 Alternatives for MRW

Options for MRW include product substitutions (using less-toxic or non-toxic products), more efficient practices that avoid waste (by using up all of the material), and product bans. There is some evidence that large-scale product substitutions are reducing the amount of hazardous wastes from residential and commercial sources.

Product bans are generally out of the reach of local municipalities, politically and practically speaking, but in some cases can be accomplished at a state or federal level. An example of a product ban is provided by mercury thermometers. A few communities have recently taken the steps necessary to ban the sale of mercury thermometers in their jurisdictions. This approach is based on the availability of alternatives (digital thermometers) at a comparable price, and the fact that mercury thermometers have caused many cases of poisoning in the past and are continuing to contribute significant amounts of mercury to the waste stream.

In 2003, the State legislature addressed mercury thermometers and other products through HB 1002. This new law has many provisions, including:

- bans the sale of mercury thermometers by January 2006.
- bans the sale of mercury-containing novelty items by January 2006.
- bans the sale of automobiles containing mercury switches by January 2006.
- requires labeling of fluorescent lamps by January 1, 2004.
- prohibits schools from purchasing mercury compounds and requires removal of existing mercury by January 2006.

The law also contains provisions for education and allows exemptions in some cases.

9.12.4 Recommendations for MRW

Since many of the problems identified for MRW are already addressed by the MRW Plan, the following recommendation is being made:

S10) This CSWMP recommends in favor of adopting the local MRW code, as previously recommended in the MRW Plan.

S11) A collection program should be developed to handle fluorescent bulbs from residential sources.

9.12.5 Implementation Schedule, Costs and Monitoring/Evaluation Methods for MRW

Adoption of the MRW code should be accomplished in 2005, at a minimal cost (a small amount of staff time). Monitoring and evaluation methods for moderate-risk waste should consist of addressing any special problems that occur, and handling/disposal methods should be revisited during the next update of this CSWMP or of the MRW Plan (or sooner if necessitated by serious problems).

A collection program for residential fluorescent bulbs (businesses are already required to dispose of their bulbs properly) should be instituted by 2005. The costs for this program will depend on the degree of participation.

9.13 PETROLEUM-CONTAMINATED SOILS (PCS)

9.13.1 Existing Conditions for PCS

Petroleum-contaminated soils (PCS) are generated as the result of spills or leaks of petroleum products. Leaks typically occur from residential oil tanks or commercial tanks, especially at gas stations. Soil contaminated by substances other than petroleum products could be handled in a similar manner, but this would need to be determined on a case-by-case basis depending upon the nature of the substance. Street sweepings (see Section 9.14) also frequently contain some level of contamination by petroleum products, but generally at too low of a level to be classified as PCS.

Large leaks are treated using land farming (bioremediation) techniques to degrade or volatilize the hydrocarbons, or materials from these sites are transported to a treatment facility in Everett or other facilities. Tesoro and Shell have landfarming sites on their property to handle the incidental amounts of PCS generated there. When these facilities have petroleum contamination beyond the scope of their landfarms, the material is treated or disposed at off-site facilities.

9.13.2 Needs and Opportunities for PCS

Options for handling PCS include land farming at off-site (i.e., out-of-county) facilities, thermal desorption (at out-of-county sites or using mobile units), incineration (at out-of-county sites or using mobile units), aeration, incorporation into asphalt, and disposal through the solid waste system (possibly the best option for small amounts).

A private facility that had operated in the County has closed and now there is no local disposal facility for PCS, so small quantities of this material are difficult to handle cost-effectively.

Any land farming sites that are expected to release hydrocarbons to the atmosphere are regulated. Emissions of volatile organic compounds are addressed by Section 300 of the Northwest Air Pollution Authority (NWAPA) regulations. New sites that may release greater than two tons per year require a "Notice of Construction and Application for Approval" and NWAPA approval. Toxic air pollutants such as benzene (a common component of gasoline) are also regulated under Ch. 173-460 of the Washington Administrative Code.

There are no significant problems with PCS disposal in Skagit County at this time, and so no further discussion of alternatives and recommendations for PCS is necessary in this CSWMP.

9.14 STREET SWEEPINGS AND VACTOR WASTES

9.14.1 Existing Conditions for Street Sweepings and Vactor Wastes

Several of the cities and a few private companies generate street sweepings and the resulting material is generally treated as clean fill. Vactor waste is removed from storm sewer catch basins and again is primarily generated by the cities plus a smaller amount by the County. Both of these

materials may be contaminated with a variety of materials, depending on the locale, unauthorized or accidental discharges, and frequency of cleaning.

9.14.2 Needs and Opportunities for Street Sweepings and Vactor Wastes

Mount Vernon is the only city known to be testing for contamination and handling materials accordingly. Burlington drains their street sweepings and then pays a hauler ($30.ton) to haul it to a disposal site. Although the potential for significant problems is low, other cities should also be more careful about contamination.

Ecology issued a draft document in July 1995 dealing with best management practices for street sweepings (Ecology 1995), and this document recommends in favor of testing street sweepings prior to management through reuse, recycling, or disposal.

Currently, vactor wastes can be classified as clean fill, solid waste, or dangerous wastes, depending upon levels of contaminants.

9.14.3 Alternatives for Street Sweepings and Vactor Wastes

Alternatives for handling street sweepings depend on the level of contamination and the resulting designation of the material as clean fill, solid waste, or dangerous wastes. For street sweepings designated as solid or dangerous wastes, the alternatives for handling are limited to disposal at a permitted site. The alternatives for handling street sweepings that are designated as clean fill are, of course, much broader and less expensive. If a substantial portion of the street sweepings is being classified as solid or dangerous wastes, it would be good to examine the underlying reasons for this in an attempt to eliminate the source of the contamination.

9.14.4 Recommendations for Street Sweepings and Vactor Wastes

Based on the problems noted above, the following recommendation is made for street sweepings:

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.

9.14.5 Implementation Schedule, Costs and Monitoring/Evaluation Methods for Street Sweepings and Vactor Wastes

This recommendation should be implemented immediately upon adoption of this CSWMP, if not sooner. The costs associated with this recommendation are unknown. The monitoring and evaluation methods should consist of addressing any problems or complaints that may occur.

9.15 TIRES

9.15.1 Existing Conditions for Tires

Tires are collected for recycling and disposal by several facilities in the County, and are removed by the County from waste delivered to the Skagit County Recycling and Transfer Station. There is one tire recycling facility in Skagit County, Larry's Auto and Truck Parts. They bale the tires and encase them in concrete, which can then be used like "ecology blocks" or building blocks. They

accept tires from the public (with current charges starting at $1.00 per tire for a small automobile tires without the rims) and also pick up tires from various businesses.

Tire retailers in the County use a variety of techniques to recycle and dispose of tires. At least one retailer is re-treading and selling tires (for larger commercial tires), and also provides tires to farmers and others for reuse. Tires that cannot be re-treaded or reused are shipped to an energy recovery facility in Portland, Oregon. Other tire retailers fill trailers (as often as one trailer every ten days) that are sent to the facility in Portland.

9.15.2 Needs and Opportunities for Tires

A separate and convenient handling system for tires is desirable to prevent illegal dumping or stockpiling of tires. If dumped illegally or stored outdoors, the tires can become a breeding ground for mosquitoes. If stockpiled, the tires present a significant risk of fire (tire fires can release large amounts of contaminants and are very difficult to extinguish). Handling tires as part of the solid waste system creates problems in collection, transfer and disposal, further reinforcing the need for a separate tire handling system.

Statewide, there are some problems with scrap tire management, especially with the ability to address the remaining tire piles and also to have tires managed through high-value markets (Ecology 2002). There are no significant problems with tires that are known to be occurring at this time in Skagit County, however, and so no further discussion of alternatives or recommendations is considered necessary in this CSWMP.

9.16 WOOD WASTES

9.16.1 Existing Conditions for Wood Wastes

This section examines primarily wood waste from logging and manufacturing activities, which is discussed separately here from wood waste that may be contained in the construction and demolition waste stream (see Section 9.7). There is no regulatory requirement, however, to handle wood waste from these various sources differently, as the definition in Ch. 173-350 WAC includes any clean wood from manufacturing, construction, demolition and logging/timber operations, including but not limited to "sawdust, chips, shavings, bark, pulp, hogged fuel, and log sort yard waste." Any wood that is painted, laminated or preserved is not included as wood waste and must be handled as solid waste. There is, in fact, increasing concern about wood treated with creosote, pentachlorophenol, or copper-chrome-arsenic (CCA), and these may be required to be specially handled in the future. New types of treated wood, using preservatives based on copper or borax, are replacing the CCA-treated wood, so that in the long run this problem will be eliminated. In the meantime, however, there is a large amount of CCA-treated wood that is currently in use and that will continue to impact the waste stream for many years to come.

There are several companies in Skagit County that generate wood waste, including truss and building supply companies, Washington Alder, and several mills. There are also several facilities in the County that handle wood waste, and can sell or process it in a variety of ways. Most of the wood waste that is a mixture of clean wood and treated woods (such as laminates and plywoods) is ground and shipped to the co-generation plant in Everett. Permitted composting facilities take some clean wood waste such as trimmings from truss manufacturers. Other facilities can sell sawdust for animal bedding or to processors such as the LaConner biosolids composting facility (which uses wood waste as a bulking agent for the biosolids composting).

9.16.2 Needs and Opportunities for Wood Wastes

Because there is only the one facility that can handle mixed wood (the co-generation plant in Everett), problems may develop in the future if that plant reaches or exceeds capacity. In addition, compost site capacity is smaller than the clean wood waste supply in Skagit County, and additional capacity may be needed to handle clean wood waste as the burn ban expands.

No significant problems are considered to exist with current handling and disposal methods for wood wastes, however, and so no alternatives or recommendations are provided for this material.

GLOSSARY

AND REFERENCES

GLOSSARY

The following definitions are provided for various terms used in the Skagit County Comprehensive Solid Waste Management Plan:

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 has been treated to meet standards for beneficial use.

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. This term is also used to refer to all waste except residential, or all waste that is collected using dumpsters.

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. Centralized composting refers to either drop-off or processing locations operated by a municipality or a business.

Corrugated cardboard (OCC): recyclable kraft liner cartons with corrugated inner liners, as typically used to ship materials. This generally does not include waxed cardboard or paperboard (cereal boxes, microwave and similar food boxes, etc.), but kraft grocery bags are included.

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

CPI: Consumer Price Index.

Curbside recycling: the act of collecting recyclable materials directly from residential generators, usually after the recyclable materials have been placed at the curb (or at the side of the street if no curb exists in the area) by the residents.

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

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.

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. Also used for products that line and cap landfills.

Household hazardous waste: wastes that would be classified as hazardous due to their nature or characteristics, except that the amount is too small to be regulated. 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 various manufacturing companies. Includes waste generated by businesses that manufacture the following products; food, textile mill products, apparel, lumber, paper, printing, chemicals, stone, clay, glass, fabricated metals, equipment, and miscellaneous other products. Does not include hazardous wastes generated by these industries.

Inert wastes: includes wastes that are inert in nature, such as glass, concrete, rocks, gravel, and bricks.

Mixed paper: all other types of recyclable paper not included in newspaper, cardboard or high-grade papers. 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.

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.

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

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 collecting and/or processing source-separated materials in order to return them to a usage similar in nature to their previous use.

Recycling bins: the small household containers used to set out materials for curbside collection.

Reusable items: items that may be reused (or easily repaired), including things such as small electronic goods, household items such as dishes, and furniture.

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 created the waste.

SEPA: State Environmental Policy Act.

Septage: a semisolid waste consisting of settled sewage solids combined with varying amounts of water and dissolved materials. This waste is pumped from septic tanks.

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

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: solid and semisolid wastes, including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, demolition and construction wastes, abandoned vehicles and parts thereof, discarded commodities, wood waste, and various special wastes.

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

Source-separated: recyclable materials that have been removed 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 steam").

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

SWAC: see Solid Waste Advisory Committee.

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.

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.

WDOE: Washington State Department of Ecology.

WUTC: Washington Utilities and Transportation Commission.

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

REFERENCES

Beck 1990. R. W. Beck and Associates. Waste Steam Composition Study, May 1990.

BioCycle 2000. BioCycle magazine. Nationwide Survey of Food Residuals Composting, August 2000.

BioCycle 2003. BioCycle magazine. Solid Waste Composting Trends in the United States, January 2003.

CSWMB 1974. California Solid Waste Management Board. Technical Bulletin No. 2, Solid Waste Generation Factors in California, July 1974.

Ecology 1995. Washington State Department of Ecology. Best Management Practices for Management and Disposal of Street Wastes, July 1995.

Ecology 1999. Washington State Department of Ecology. Guidelines for the Development of Local Solid Waste Management Plans and Plan Revisions, December 1999.

Ecology 2002. Washington State Department of Ecology. SHB 2308 Scrap Tire Report, December 2002.

EES 1995. Economic and Engineering Services, Inc. Comprehensive Solid Waste Rate Study, December 1995.

EM 2002. EnviroMech. Skagit County Transfer Station Alternatives Analysis, February 2002.

GS 1998. Green Solutions. Snohomish County Waste Composition Study, November 1998.

GS 2000a. Green Solutions. Thurston County Waste Composition Study, June 2000.

GS 2000b. Green Solutions. Clark County 1999 Waste Stream Analysis, June 2000.

GS 2003. Green Solutions. Waste Composition Analysis for the State of Washington, June 2003.

KC 1998. King County. Agricultural Waste Issue Paper, November 1998.

NWAPA 2000. Northwest Air Pollution Authority. Information provided by Dave Blake to Rick Hlavka on September 7, 2000.

NWAPA 2002. Northwest Air Pollution Authority. Information provided by Laura Curley to Rick Hlavka on February 4, 2002.

OFM 2002. Office of Financial Management. Washington State County Growth Management Population Projections: 2000 to 2025 (medium series), January 2002.

OFM 2003. Office of Financial Management. Population Trends 2003.

RRFAC 1995. Skagit County Resource Recovery Facility Assessment Committee. Alternatives Assessment Report, April 1995.

SC 1994. Skagit County. Skagit County Comprehensive Solid Waste Management Plan Update and Environmental Impact Statement, April 1994.

SC 1997. Skagit County. Comprehensive Plan, June 1997, amended July 24, 2000 and thereafter.

SC 2000. Skagit County Planning and Permit Center. Fax received September 11, 2000.

SCS 1992. SCS Engineers. Moderate Risk Waste Management Plan, 1992.

SERA 1996. Skumatz Economic Research Associates. Quantitative Effects of Program Choices on Recycling and Green Waste Diversion: Beyond Case studies, July 1996.

SRM 1999. Sound Resource Management. The Monthly UnEconomist, September 1999.

SRM 2001. Sound Resource Management. Summary Analysis of Set-Out Weights for Garbage, Recycling & Yard Debris in the City of Vancouver, June 2001.

URS 1996. URS Consultants, Inc. Report on Skagit County Recycling Center and Transfer Station, September 1996.

USDA 2000. United States Department of Agriculture, National Agricultural Statistics Service. 1997 Census of Agriculture: Geographic Area Series, as reported at http://govinfo.kerr.orst.edu, August 2000.

WSRA 2000. Washington State Recycling Association. New Glass Grinder for Stevens County, from The Report (WSRA newsletter), August 2000.

WUTC 1997. Washington Utilities and Transportation Commission. Cost Assessment Guidelines for Local Solid Waste Management Planning, January 1997.

APPENDIX A

INTERLOCAL AGREEMENT AND RESOLUTIONS OF ADOPTION

APPENDIX A1
INTERLOCAL AGREEMENT

INTRODUCTION

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

DISCUSSION

This interlocal agreement provides for a number of changes from the previous agreement, including:

- extends the effective date to coincide with the current contractual commitment for disposal (waste export) services.
- modifies the membership of the Solid Waste Advisory Committee (SWAC) to include representation from all eight cities and towns.
- creates a subcommittee of the SWAC called the Transfer Station Oversight Sub-Committee and outlines the duties of that group.
- modifies the role and operation of the Municipalities Committee.

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.

SKAGIT COUNTY
Resolution # R20040173
Page 1 of 1

RESOLUTION NO. _____

A RESOLUTION AUTHORIZING EXECUTION OF INTERLOCAL AGREEMENT WITH CITIES AND TOWNS IN SKAGIT COUNTY FOR SOLID WASTE MANAGEMENT

WHEREAS, RCW 39.34, the Interlocal Cooperation Act, provides the capability for public agencies to cooperate by providing services and facilities for mutual advantage; and

WHEREAS, Skagit County is providing the most effective and efficient system for managing solid waste generated in Skagit County, and working together with its Municipalities; and

WHEREAS, this agreement shall extend for a period of ten years; and

WHEREAS, each of the eight Municipalities has entered into this agreement as shown by each Mayor's signature.

NOW, THEREFORE, BE IT RESOLVED AND IT IS HEREBY ORDERED, that an Interlocal Agreement between Skagit County and Cities and Towns in Skagit County be established to replace the previous Interlocal Cooperation Agreement for a Comprehensive Solid Waste Disposal System, that the parties entered into in 1986.

PASSED this 17th day of May, 2004.

BOARD OF COUNTY COMMISSIONERS
SKAGIT COUNTY, WASHINGTON

SKAGIT COUNTY COMMISSIONERS SEAL STATE OF WASHINGTON COURT

Ted W. Anderson, Chairman

Don Munks, Commissioner

Kenneth A. Dahlstedt, Commissioner

Attest:
JoAnne Giesbrecht, Clerk
Board of County Commissioners
RESOLUTION

After Recording Return to:

GARY SORENSEN
SKAGIT COUNTY PUBLIC WORKS
1800 CONTINENTAL PLACE
MOUNT VERNON, WA 98273

200405190003
Skagit County Auditor
5/19/2004 Page 1 of 10 8:49AM

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

THIS AGREEMENT, made and entered into on this 17th day of May, 2004, by and between the Cities and Towns listed, hereinafter called "Municipalities" and Skagit County, Washington, hereinafter called "County" pursuant to the authority granted by Chapter 39.34 RCW, INTERLOCAL COOPERATION ACT.

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

WHEREAS, Skagit County prepared a Comprehensive Solid Waste Management Plan for the County and Municipalities of the County in 1994, and is in the process of updating the Plan with the active involvement of the Municipalities with completion anticipated 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;

NOW, THEREFORE, Skagit County and the undersigned Municipalities agree as follows:

1. This Interlocal Agreement entirely replaces the previous Interlocal Cooperation Agreement for a Comprehensive Solid Waste Disposal System that the parties entered into in 1986.

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

2.1 "Municipality" means a City or Town in Skagit County, Washington.

2.2 "Comprehensive Solid Waste Management Plan" means the Skagit County Comprehensive Solid Waste Management Plan issued in 1994 (2004 in progress) and as amended from time to time.

2.3 "County" means Skagit County, Washington.

2.4 "Interlocal Agreement" means this Interlocal Cooperative Agreement Between Skagit County and Cities and Towns in Skagit County for Solid Waste Management.

2.5 "Person" means an individual, firm, association, partnership, political subdivision, government agency, municipality, industry, public or private corporation, or any other entity whatsoever.

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

2.7 "Solid waste handling" means the management, storage, collection, transportation, utilization, processing, and final disposal of solid wastes, including the recovery and recycling of materials from solid wastes, the recovery of energy resources from such wastes or the conversion of 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.

2.8 "System" means all facilities for solid waste handling owned or operated, or contracted for, by the County, and all administrative activities related thereto.

3. Responsibilities for Waste Disposal and System. For the duration of this Interlocal Agreement, the County and Municipalities shall have the following responsibilities:

3.1 The Municipalities shall provide appropriate staff and resources to meet the objectives and needs of the Transfer Station Oversight Sub-Committee, Solid Waste Advisory Committee, Municipalities Committee and as otherwise indicated to fulfill this Agreement.

3.2 The County shall continue to provide for the efficient disposal of all solid waste generated within unincorporated areas of the County and within each of the Municipalities signing this Interlocal 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 Interlocal Agreement extends to solid waste that has been eliminated through waste recycling activities in conformity with the Comprehensive Solid Waste Management Plan.

3.3 The County shall provide for the disposal of moderate risk wastes by households at the System's existing Moderate Risk Waste Facility, or in another reasonable and similarly convenient licensed-permitted matter.

3.4 The County shall continue to provide a comprehensive solid waste management system, including educational programs, as defined by the Comprehensive Solid Waste Management Plan.

3.5 The County shall continue to operate the System in a financially prudent manner, minimize fee increases, use System revenues only for System purposes, and manage the System to meet the tipping fee rate schedule as shown in Appendix A, subject to the U.S. Bureau of Labor Statistics consumer price index for U.S. City Average remaining at 3% or lower. Should higher annual inflation occur over the period of this agreement, or unforeseen System needs/liabilities require additional revenue, a System rate analysis study shall be conducted in accordance with paragraph 3.6. Nothing in this agreement shall prohibit a decrease in System tip fees, subject to paragraph 3.6.

3.6 Independent Rate and Efficiency Study: Upon signature of this Interlocal Agreement by all Municipalities and Skagit County, Skagit County and the Transfer Station Oversight Sub-Committee shall jointly select and hire a consultant to perform an independent rate and efficiency study. The study shall be managed by the Transfer Station Oversight Sub-Committee and the County and the findings shall be reported to the Solid Waste Advisory Committee. The study shall analyze System expenses, revenues, and operations and provide recommendations for System tip fees and operational efficiencies. The Solid Waste Advisory Committee will review the results of the rate and efficiency study

and forward its recommendations regarding the study to the Municipalities Committee for consideration and recommendation to the County Board of Commissioners. A rate and efficiency study shall subsequently be performed every three (3) years, or more frequently if requested by the Municipalities Committee.

3.7 System Options Study: Three years prior to the expiration of this agreement, Skagit County, the Transfer Station Oversight Sub-Committee and Solid Waste Advisory Committee shall jointly select and hire a consultant to perform a solid waste system options study that will review existing operations and market conditions to select and compare a set of solid waste system options that will be used to guide the Municipalities Committee and the Board of County Commissioners prior to the conclusion of this agreement.

4. Comprehensive Solid Waste Management Plan. For the duration of this Interlocal Agreement, each Municipality 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 this Interlocal Agreement, each Municipality authorizes the County to include in the Comprehensive Solid Waste Management Plan provisions for the management of solid waste generated in each Municipality.

5. Municipality Designation of County System for Solid Waste Disposal. Each Municipality shall designate the County System for disposal of all Solid Waste generated within the corporate limits of that Municipality, and within the scope of the Comprehensive Solid Waste Management Plan, and authorize the County to designate a 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. This designation of the County System shall continue in full force and effect for a period of ten (10) years after the date of this Interlocal Agreement. The designation of the County in this section shall not reduce or otherwise affect each Municipality's control over solid waste collection as permitted by applicable state law.

6. 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 Municipality 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 a Municipality possesses that authority, the County may request that the Municipality bring such enforcement action. The Municipality shall comply with this request, or in some other way ensure that solid waste generated with the Municipality is disposed of at those sites designated by the County. The County shall pay as System costs all reasonable costs incurred by the Municipality in taking such enforcement or other actions that are requested in writing by the County.

7. Indemnifcations.

7.1 The County shall indemnify and hold harmless and defend each Municipality against any and all claims by third parties arising out of the County's operations of the System, and have the right to settle those claims by third parties. In providing a defense for a Municipality, the County shall exercise good faith in that defense or settlement so as to protect the Municipality's interests. The County's agreement to indemnify a Municipality for any and all claims arising out of the County's operation of the System extends to all claims caused by the actions of officers or agents of the County including, but not limited to, actions which constitute misfeasance, or intentional misconduct or wrongdoing, even if the cost of such claims is held by a court of competent jurisdiction to not be a proper cost to the System. For the purpose of this paragraph, "claims arising out of the County's operations" shall include claims arising out of the ownership, control or maintenance of the System, but shall not include the claims arising out of collection of solid waste within a Municipality prior to its delivery to a disposal site designated by the County or other activities under the control of a Municipality.

7.2 If the County acts to defend a Municipality against a claim, that Municipality shall cooperate with County.

7.3 For purposes of this section, reference to a Municipality and to the County shall be deemed to include the officers, agents and employees of any party, acting within the scope of their authority.

8. Duration. This Interlocal Agreement shall continue to be in full force and effect for ten (10) years from the date of this Interlocal Agreement, unless terminated as described in the following paragraph.

9. Revision, Amendment, Supplementation or Termination. This Interlocal Agreement shall be reviewed by the parties in conjunction with any review of the Comprehensive Solid Waste Management Plan. The terms of the Interlocal Agreement may be revised, amended, or supplemented, or the Interlocal Agreement as a whole may be terminated only upon the written agreement of both the County and all Municipalities 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 contractual obligation of the County.

10. Solid Waste Advisory Committee.

10.1 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 Municipalities Committee 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.

10.2 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 Municipality in Skagit County which is a signatory to the Comprehensive Solid Waste Management Plan, 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 recyling 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.

10.3 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.

10.4 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.

11. Municipalities Committee.

11.1 Purpose. To review solid waste operations and Comprehensive Solid Waste Management Plan implementation. Any proposed changes or improvements significantly affecting the operation of the solid waste disposal system or which may directly or indirectly impact tipping fees or siting of disposal facilities shall be submitted to the Municipalities Committee prior to any final decision by the Board of Skagit County Commissioners to provide an opportunity for adequate review, deliberation, and the formulation of comments and recommendations.

11.2 Regular Members. The Municipalities Committee shall consist of one (1) Municipality Council member and the Mayor from each of the eight (8) Municipalities executing this agreement. A Mayor may choose a second Municipality Council member as his/her designee.

11.3 Meetings. The Municipalities Committee shall meet every two years, or as needed to review the status of the solid waste disposal system; any recommendations from the Solid Waste Advisory Committee; tipping fee adjustments; and, any proposed changes or improvements significantly affecting the operation of the solid waste disposal system.

12. Miscellaneous.

12.1 No waiver by any party of any term or condition of this Interlocal Agreement shall be deemed or construed to constitute a waiver of any other term or condition or of any subsequent breach whether of the same or of a different provision of this Interlocal Agreement.

12.2 This Interlocal 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 Interlocal Agreement.

13. If any term or condition of this Interlocal Agreement or the application thereof to any person(s) or circumstances is held invalid, such invalidity shall not affect other terms, conditions or applications which can be given effect without the invalid term, condition or application. To this end, the terms and conditions of this Interlocal Agreement are declared severable.

IN WITNESS WHEREOF, this Interlocal Agreement has been executed by the parties shown below and is dated as of the 17th day of May, 2004.

City of Anacortes
Mayor Dean Maxwell

City of Burlington
Mayor Roger Tjeerdsma

Town of Concrete
Mayor John Rantschler

Town of Hamilton
Mayor Timothy Bates

Town of La Conner
Mayor Wayne Everton

Town of Lyman
Mayor Chris Stormont

City of Mount Vernon
Mayor Bud Norris

City of Sedro-Woolley
Mayor Sharon Dillon

APPROVED:

BOARD OF COUNTY COMMISSIONERS
SKAGIT COUNTY, WASHINGTON

Ted W. Anderson, Chairman

Don Munks, Commissioner

Kenneth A. Dahlstedt, Commissioner

Attest:
JoAnne Giesbrecht, Clerk of the Board

Appendix A

Inflation	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
CPI	2.62%	2.10%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%

Skagit County Public Works - Solid Waste Division
Summary of Revenue Requirements - By Budget Category

	Actual 1998	Actual 1999	Actual 2000	Actual 2001	Actual 2002	Projection 2003	Budget 2004	Forecast 2005	Forecast 2006	Forecast 2007	Forecast 2008	Forecast 2009	Forecast 2010	Forecast 2011	Forecast 2012	Forecast 2013
Sources of Funds			2.299%	-1.998%	4.856%	3.724%										
Rate Revenues	6,947,539	7,107,270	6,965,268	7,303,526	7,575,496	7,662,950	7,766,650	7,913,677	8,063,524	8,216,246	8,566,671	8,728,917	8,894,278	9,062,815	9,234,589	9,409,665
Intergovernmental Revenue	162,932	138,424	139,122	184,388	178,741	168,772	173,270	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000
Misc Revenues	38,797	87,062	416,724	104,157	63,918	40,800	45,500	43,745	44,857	44,289	45,308	49,674	51,681	51,601	48,798	42,471
Total Revenues	7,149,269	7,332,756	7,521,114	7,592,070	7,818,155	7,872,522	7,985,420	8,132,422	8,283,380	8,435,535	8,786,979	8,953,591	9,120,959	9,289,416	9,458,388	9,627,136
Applications of Funds																
Administration	428,553	556,939	773,702	719,737	686,897	653,316	661,773	663,850	677,455	696,603	723,083	778,400	759,309	785,830	842,980	840,777
Debt Service	1,093,303	1,133,903	1,097,481	1,094,464	1,100,300	1,243,203	1,079,563	1,078,540	1,077,060	895,113	779,563	779,625	782,950	784,240	783,435	785,795
Environment	118,947	134,804	93,116	132,027	123,318	169,045	254,890	231,337	237,977	244,816	251,861	259,116	266,590	274,288	282,216	290,383
Education	101,770	61,075	65,086	67,912	77,215	83,101	90,899	95,302	96,086	98,954	103,907	104,949	108,083	113,310	114,635	118,059
Transfer Station	3,907,678	4,237,042	4,473,950	4,771,391	4,840,061	5,151,002	6,861,025	5,487,398	5,688,692	5,897,962	6,140,040	6,345,219	6,603,805	6,846,864	7,108,996	7,370,544
Remote Sites	288,706	266,951	301,127	366,852	322,212	370,730	392,142	276,609	285,486	294,664	304,153	313,963	324,106	334,593	345,436	356,647
Training	8,558	7,430	7,981	8,265	5,274	14,558	21,278	21,916	22,574	23,251	23,949	24,667	25,407	26,169	26,954	27,763
Hazardous Waste	-	77,821	96,112	100,339	117,463	126,957	136,166	143,236	145,428	149,746	156,193	158,774	163,492	170,352	173,358	178,513
Litter Cleanup	-	-	-	-	-	72,159	76,366	78,657	81,017	83,447	85,951	88,529	91,185	93,921	96,738	99,640
Capital & Extraordinary Mtce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Application of Funds	5,947,515	6,475,964	6,908,555	7,260,988	7,272,740	7,884,071	9,574,102	8,076,844	8,311,775	8,384,556	8,568,698	8,853,243	9,124,927	9,429,566	9,774,748	10,068,121
		8.8852%	6.6799%	5.1014%	0.1619%	8.4058%										
Balance or (Deficiency) of Funds	1,201,754	856,792	612,559	331,082	545,415	(11,549)	(1,588,682)	55,577	(28,395)	50,979	218,280	100,348	(3,968)	(140,150)	(316,360)	(440,985)
Bal/(Def.) of Funds as % of Rate Rev.	17%	12%	9%	5%	7%	0%	-20%	1%	0%	1%	3%	1%	0%	-2%	-3%	-5%

Cash Flow Projections

	Actual 2002	Projection 2003	Budget 2004	Forecast 2005	Forecast 2006	Forecast 2007	Forecast 2008	Forecast 2009	Forecast 2010	Forecast 2011	Forecast 2012	Forecast 2013
Cash @ beginning of year		3,762,479	3,750,930	2,162,248	2,217,825	2,189,430	2,240,409	2,458,690	2,559,038	2,555,070	2,414,920	2,098,560
Revenues		7,872,522	7,985,420	8,132,422	8,283,380	8,435,535	8,786,979	8,953,591	9,120,959	9,289,416	9,458,388	9,627,136
Expenses		(7,884,071)	(9,574,102)	(8,076,844)	(8,311,775)	(8,384,556)	(8,568,698)	(8,853,243)	(9,124,927)	(9,429,566)	(9,774,748)	(10,068,121)
Cash at end of year		3,750,930	2,162,248	2,217,825	2,189,430	2,240,409	2,458,690	2,559,038	2,555,070	2,414,920	2,098,560	1,657,575
Tonnage			1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%
Container	1,950	2,050	2,100	2,139	2,178	2,219	2,260	2,302	2,344	2,388	2,432	2,477
Cities	34,900	35,600	35,600	36,259	36,929	37,613	38,308	39,017	39,739	40,474	41,223	41,985
Other	52,350	53,400	54,900	55,916	56,950	58,004	59,077	60,170	61,283	62,417	63,571	64,747
	89,200	91,050	92,600	94,313	96,058	97,835	99,645	101,488	103,366	105,278	107,226	109,209
Haul Fee	44.15	44.68	45.43	46.34	47.27	48.21	49.18	50.16	51.16	52.19	53.23	54.29
Rates												
Cities	82	82	82	82	82	82	84	84	84	84	84	84
Other	83	83	83	83	83	83	85	85	85	85	85	85

Status Quo - County Operate Transfer Station

APPENDIX A2
RESOLUTIONS OF ADOPTION

INTRODUCTION

This appendix shows the resolutions of adoption for the municipalities that adopted the Final Draft of the Skagit County Comprehensive Solid Waste Management Plan.

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

December 2, 2005

Mr. Chal Martin, PE
Skagit County Public Works Director
1800 Continental Place
Mount Vernon, WA 98273

Dear Mr. Martin:

RE: Ecology Approval of the *Final Draft 2004 Skagit County Comprehensive Solid Waste Management Plan, September 2004, (WUTC Docket TG-040229)*

On October 18, 2005 Ecology received formal submittal of the *Final Draft 2004 Skagit County Comprehensive Solid Waste Management Plan, September 2004 (WUTC Docket TG-040229)* and a request for final review. Per the statutory requirements of Chapter 70.95, and under the *WDOE 90-11 Guidelines for the Development of Local Solid Waste Management Plans and Plan Revisions (WDOE 90-11 Guidelines)*, I have conducted the final review of the Plan.

The *Final Draft 2004 Skagit County Comprehensive Solid Waste Management Plan, September 2004 (WUTC Docket TG-040229)* is approved.

Although we must by law approve the plan, we are concerned that five of the eight cities in the county have, to date, refused to sign on to the plan. On July 1, 2005 these cities represented an estimated 61,590 people, or 55 percent of the total county population. We have not witnessed a similar split in the state, and we hope the cities and the county will be able to work together and find common ground. We will continue to work with the county and the cities to determine what steps need to be taken should the cities not become signatories to the plan.

Ecology will remain available to continue to work with the county on planning matters. If you have questions or need assistance, please call me at 425-649-7076 or e-mail me at pchr461@ecy.wa.gov.

Sincerely,

Peter Christiansen
Section Manager
Solid Waste and Financial Assistance Program

cc: Carole Washburn, WUTC
Scott Sutherland, SWAC Chair

RESOLUTION NO. _____

ADOPTING THE 2004 FINAL DRAFT SKAGIT COUNTY COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

WHEREAS, Skagit County is required to prepare a Comprehensive Solid Waste Management Plan pursuant to RCW 70.95.080; and

WHEREAS, cities and towns in Skagit County have participated in developing the Comprehensive Solid Waste Management Plan with the County for integrated solid waste Management pursuant to an Interlocal Cooperative Agreement No. C20040228, for Solid Waste Management executed by the Board of County Commissioners on May 17, 2004; and

WHEREAS, it is necessary for the Comprehensive Solid Waste Management Plan for Skagit County to be updated pursuant to RCW 70.95.080; and

WHEREAS, the Washington State Department of Ecology and Washington Utilities and Transportation Commission reviewed the draft Comprehensive Solid Waste Management Plan and provided comments; and

WHEREAS, the county staff, under the guidance and with participation of the Skagit County Solid Waste Advisory Committee, has resubmitted the proposed revised Plan dated 2004, to all cities and towns for approval; and

WHEREAS, the Preliminary Draft 2004 Comprehensive Solid Waste Management Plan was made available for Public Comment and widely distributed to potentially interested parties in February 2004; and

WHEREAS, the Final Draft 2004 Comprehensive Solid Waste Management Plan addresses all public review comments received by the closing date of the Public Comment period; and

WHEREAS, at regularly scheduled Town Council meetings, the towns of Concrete, Lyman, and La Conner, adopted the 2004 Final Draft Comprehensive Solid Waste Management Plan, and are included in the Plan; and

WHEREAS, the proposed Comprehensive Solid Waste Management Plan has been reviewed as a non-project action under SEPA and a Determination of Nonsignificance was issued on September 28, 2004; and

WHEREAS, the adopted Comprehensive Solid Waste Management Plan will be submitted to the Washington State Department of Ecology for final approval.

NOW, THEREFORE, BE IT RESOLVED by the Skagit County Board of Commissioners that the 2004 Skagit County Comprehensive Solid Waste Management Plan, as attached and made a part hereto of this Resolution, is hereby approved and adopted as the County's plan for solid waste management.

WITNESS OUR HANDS AND THE OFFICIAL SEAL OF OUR OFFICE this 3rd day of October, 2005

BOARD OF COUNTY COMMISSIONERS
SKAGIT COUNTY, WASHINGTON

SKAGIT COUNTY COMMISSIONERS SEAL COURT STATE OF WASHINGTON

Don Munks

Don Munks, Chairman

Kenneth A. Dahlstedt, Commissioner

Ted W Anderson

Ted W. Anderson, Commissioner

ATTEST: JoAnne Giesbrecht

JoAnne Giesbrecht, Clerk of the Board

RESOLUTION #2005-04

A RESOLUTION ADOPTING THE 2004 SKAGIT COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

WHEREAS, the Solid Waste Management Act (RCW 70.95) requires each city and county to prepare a comprehensive solid waste management plan; and

WHEREAS, in 1986, the cities and towns in Skagit County joined in signing an Interlocal agreement with Skagit County that calls for a planning process, lead by the Skagit County Public Works Department, resulting in the development of a joint city-county plan; and

WHEREAS, the Town of Concrete has had ample opportunity to participate in the development of the PLAN through the planning process guided by the Solid Waste Advisory Committee; and

WHEREAS, the PLAN sets forth recommendations for an efficient and integrated solid waste management system; and

WHEREAS, the Concrete Town Council finds this PLAN acceptable as the Solid Waste Management Plan for the Town of Concrete; and

WHEREAS, some of the cities and towns voted to not support the draft SWMP due to their concerns about the long-term financial stability of the solid waste system; and

WHEREAS, the Skagit County board of Commissioners held a workshop on January 11, 2005, where some of the city representatives shared their concerns about the PLAN and as a follow-up to this meeting the Skagit County Board of Commissioners met in open session on February 7, 2005 and approved several language changes to the draft Solid Waste Management Plan addressing those concerns,

NOW THEREFORE, THE TOWN COUNCIL OF THE TOWN OF CONCRETE DO HEREBY RESOLVE AS FOLLOWS:

The 2004 Skagit County Solid Waste Management Plan Update, with language revisions (Attachment A), be approved and adopted as the Solid Waste Management Plan for the Town of Concrete

Passed and approved this 9th day of May, 2005.

Jack R Ballman Jr
Mayor

Attest:

Nancy K. Allen
Clerk - Treasurer

ATTACHMENT A

1) Section 7.2.3.F Project Initiation

The System envisions that owners/operators of private solid waste facilities may establish their enterprises either in response to a System procurement for solid waste services, or upon their own initiative to site permit and operate such facilities ~~in the open market~~ in accordance with this policy, and upon completion of a detailed financial analysis by competent professionals that shows how proposed facility may affect the solid waste revenue base needed to meet obligations related to solid waste, and to support programs and policies.

2) Section 7.4.5 Policy for Existing Waste Import/Export Contracts

There is one recommendation (policy) being made for waste export:

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 ~~honor the current waste export contract~~.

Town of La Conner

RESOLUTION NO. 373

A RESOLUTION ADOPTING THE 2004 SKAGIT COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE.

Whereas, the Solid Waste Management Act (RCW 70.95) requires each city and county to prepare a comprehensive solid waste management plan; and

Whereas, in 1986, the cities and towns in Skagit County joined in signing an interlocal agreement with Skagit County that calls for a planning process, lead by the Skagit County Public Works Department, 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, in 1994 the La Conner Town Council adopted a resolution approving and adopting the Skagit county Solid Waste Management Plan Update as the Solid Waste Management Plan for the Town of La Conner; and

Whereas, the Town of La Conner has had ample opportunity to participate in the development of the PLAN through the planning process guided by the SWAC; and

Whereas, the PLAN sets forth recommendations for an efficient and integrated solid waste management system; and

Whereas, the La Conner Town Council finds this PLAN acceptable as the Solid Waste Management Plan for the Town of La Conner; and

Whereas, the La Conner Town Council adopted this PLAN per Resolution 367 at their December 14, 2004 meeting; and

Whereas, some of the cities and towns voted to not support the draft SWMP due to their concerns about the long-term financial stability of the solid waste system; and

Whereas, the Skagit County Board of Commissioners held a workshop on January 11, 2005, where some city representatives shared their concerns about the PLAN and as a follow-up to this meeting the Skagit County Board of Commissioners met in open session on February 7, 2005 and approved several language changes to the draft SWMP addressing those concerns.

NOW THEREFORE, BE IT RESOLVED by the Town Council of the Town of La Conner, Washington, that the 2004 Skagit County Solid Waste Management Plan Update, with language revisions (Attachment A), be approved and adopted as the Solid Waste Management Plan for the Town of La Conner.

Approved by vote of the La Conner Town Council this 12th day of April, 2005.

TOWN OF LA CONNER, WASHINGTON

Wayne Everton, Mayor

ATTEST:

Debby Malarchick, Finance Director

ATTACHMENT A

SKAGIT COUNTY
ADMINISTRATIVE SERVICES
GARY ROWE, County Administrator

February 24, 2005

The Honorable Mayor Wayne Everton
Town of La Conner
PO Box 400
La Conner WA 98257

RE: Reconsideration of Draft Solid Waste Management Plan

Dear Mayor Everton,

Several weeks ago, cities and towns in Skagit County considered the Solid Waste Management Plan (SWMP). Some of the cities and towns voted to not support the draft SWMP due to their concerns about the long-term financial stability of the solid waste system. The Board of Commissioners held a workshop on January 11, 2005, on the draft SWMP where some city representatives shared their concerns about the Plan. The primary issues raised during this workshop were related to the allowance of additional solid waste handling facilities, and the impacts of such additional facilities on the financial stability of the solid waste system and on future tipping fees.

As a follow-up to this meeting, I met with the Board of County Commissioners in open session on February 7, and presented several language changes to the draft SWMP to address these concerns (meeting minutes attached). The proposed language as modified was approved by the full Board.

The proposed new language to the SWMP to consider for adoption is as follows:

1) Section 7.2.3.F. Project Initiation

The System envisions that owners/operators of private solid waste facilities may establish their enterprises either in response to a System procurement for solid waste services, or upon their own initiative to site, permit and operate such facilities ~~in the open market~~ in accordance with this policy, and upon completion of a detailed financial analysis by competent professionals that shows how proposed facility may affect the solid waste revenue base needed to meet obligations related to solid waste, and to support programs and policies.

2) Section 7.4.5 Policy for Existing Waste Import/Export Contracts

There is one recommendation (policy) being made for waste 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 ~~honor the current waste export contract~~.

It is important to look at these modifications in conjunction with all the policies contained in Chapter 7 of the draft SWMP. Chapter 7 contains several policies that ensure the financial stability of the solid waste system. A copy of Chapter 7 is attached for you, as well.

We would like to brief the Municipalities Committee members on these proposed changes at the next scheduled meeting on March 16, 2005. At that meeting, we would like to ask the Committee to adopt the changes to the Draft SWMP as proposed. Once the Cities and Towns have approved the changes to the Plan, then we will submit the draft SWMP back to the Department of Ecology for approval.

Sincerely,

Gary Rowe
Skagit County Administrator

Cc: Skagit County Board of Commissioners
Chal Martin
Gary Sorenson

TOWN OF LYMAN

RESOLUTION NO.
2005-1

A RESOLUTION ADOPTING THE 2004 SKAGIT COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE.

Whereas, the Solid Waste Management Act (RCW 70.95) requires each city and county to prepare a comprehensive solid waste management plan, and

Whereas, in 1986, the cities and towns in Skagit County joined in signing an Interlocal agreement with Skagit County that calls for a planning process, lead by the Skagit County Public Works Department, resulting in the development of a joint city plan; and

Whereas, in 1994 the Lyman Town Council adopted a resolution approving and adopting the Skagit county Solid Waste Management Plan Update as the Solid Waste Management Plan for the Town of Lyman; and

Whereas, the Town of Lyman has had ample opportunity to participate in the development of the PLAN through the planning process guided by the SWAC; and

Whereas, the PLAN sets forth recommendations for an efficient and integrated solid waste management system; and

Whereas, the Lyman Town Council finds this PLAN acceptable as the Solid Waste Management Plan for the Town of Lyman; and

Whereas, the Lyman Town Council adopted this PLAN per Resolution at their December , 2004 meeting; and

Whereas, some of the cities and towns voted to not support the draft SWMP due to their concerns about the long-term financial stability of the solid wasted system; and

Whereas, the Skagit County Board of Commissioners held a workshop on January 11, 2005, where some city representatives shared their concerns about the PLAN and as a follow-up to this meeting the Skagit County Board of Commissioners met in open session on February 7, 2005 and approved several language changes to the draft SWMP addressing those concerns.

NOW THEREFORE, BE IT RESOLVED by the Town Council of the Town of Lyman, Washington, that the 2004 Skagit County Waste Management Plan Update, with language revisions be approved and adopted as the Solid Waste Management Plan for the Town of Lyman.

Chris Stormont
Mayor, Chris Stormont

APPENDIX B

WUTC COST ASSESSMENT QUESTIONNAIRE

APPENDIX B
WUTC 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 (WUTC or 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 WUTC (WUTC 1997). 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 WUTC needs this information to review the potential impact of this Comprehensive Solid Waste Management Plan (CSWMP) to the certificated waste haulers that it regulates. For these haulers, WUTC is responsible for setting collection rates and approving proposed rate changes. Hence, WUTC 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 probable collection rate impacts of proposed programs. Consistent with this purpose, the cost assessment focuses primarily on those programs (implemented or recommended) with potential rate impacts.

SUMMARY

Two significant changes in this CSWMP are to establish minimum service levels expected for various areas of the County and to allow more than one transfer station. The CSWMP also attempts to provide improved direction for future developments through the implementation of a system policy (see Chapter 7). Other recommendations made in the CSWMP are primarily refinements to existing programs.

COST ASSESSMENT QUESTIONNAIRE

PLAN PREPARED FOR THE COUNTY OF: Skagit County

PREPARED BY: Rick Hlavka, Green Solutions

CONTACT TELEPHONE: 360-897-9533

DATE: January 29, 2004

DEFINITIONS

These definitions as used in the Solid Waste Management Plan and the Cost Assessment Questionnaire.

Throughout this document:
YR.1 shall refer to 2004.
YR.3 shall refer to 2006.
YR.6 shall refer to 2009.

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: 112,400 YR.3: 116,800 YR.6: 123,300

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: 112,400 YR.3: 116,800 YR.6: 123,300

1.2 References and Assumptions

Population figures are taken from Table 2.6 of the Skagit County Comprehensive Solid Waste Management Plan, Preliminary Draft, January 2004.

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: 50,400 YR.3: 52,400 YR.6: 55,300

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: 93,700 YR.3: 97,300 YR.6: 102,700

2.3 References and Assumptions

2.4

All recycling and disposal tonnages are projected, and are from Table 2.6 of the Skagit County Comprehensive Solid Waste Management Plan, Preliminary Draft, January 2004.

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	PROPOSED
Various existing activities are already conducted for waste reduction and public education, see plan (especially Chapter 3) for further details.	Need measurement method (p. 3-3 to 3-5). Promote building reuse store (p. 3-3 to 3-5). Start business recognition program (p. 3-8). Discourage illegal dumping (p. 3-7 to 3-8, and 9-10 to 9-12).

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

IMPLEMENTED

YR.1: $90,900 YR.3: $96,090 YR.6: $105,000

PROPOSED

YR.1: $5,000+ YR.3: $5,000+ YR.6: $5,000+

3.1.3 Please describe the funding mechanism(s) that will pay the cost of the programs in 3.1.2.

IMPLEMENTED

YR.1: See note YR.3: _____ YR.6: _____

Tipping fees and grants (primarily from Ecology's CPG program) are the anticipated funding sources for all years.

PROPOSED

YR.1: See note YR.3: _____ YR.6: _____

Tipping fees and grants (primarily from Ecology's CPG program) are the anticipated funding sources for all years.

3.2 Recycling and Composting Programs

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

IMPLEMENTED

PROGRAM	COST	FUNDING
Various existing public and private programs.	NA	Market revenues, service charges, tipping fee, grants.

PROPOSED

PROGRAM	COST	FUNDING
Hire Recycling Coordinator.	$35,000 - $60,000	Tipping fee
Additional areas for curbside recy.	Up to $6.00/mo/HH	Service charges
Additional areas for curbside yard debris collection	Up to $8.50/mo/HH	Service charges

See also Table 6.2, Minimum Service Levels.

3.3 Solid Waste Collection Programs

3.3.1 Regulated Solid Waste Collection Programs

Fill in the table below for each WUTC regulated solid waste collection entity in your jurisdiction.

WUTC Regulated Hauler Name **Waste Management of Skagit County**
G-permit # G-237

	YR. 1	YR. 3	YR. 6
RESIDENTIAL			
- # of Customers	8,320	9,000	10,000
- Tonnage Collected	12,870	13,900	16,000
COMMERCIAL			
- # of Customers	1,500	1,630	1,800
- Tonnage Collected	6,140	6,640	7,500
DROPBOX			
- # of Customers	150	160	180
- Tonnage Collected	10,600	11,500	13,000

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**

	YR. 1	YR. 3	YR. 6
# of Customers	6,200	6,700	7,600
Tonnage Collected	7,900	8,500	9,600

Hauler Name City of Burlington

	YR. 1	YR. 3	YR. 6
# of Customers	2,400	NA	NA
Tonnage Collected	1,340	NA	NA

Hauler Name City of Mount Vernon

	YR. 1	YR. 3	YR. 6
# of Customers	8,000	8,600	9,700
Tonnage Collected	19,200	20,800	23,400

Hauler Name City of Sedro Woolley

	YR. 1	YR. 3	YR. 6
# of Customers	3,160	3,420	3,800
Tonnage Collected	5,040	5,450	6,100

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: 661,773 YR.3: 677,455 YR.6: 778,400

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, insurance, B&O tax, roads, consultants, health department support, 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 8.1, p. 8-4, of the plan). These are the figures shown in Section 3.1.2.

For 3.1.2, the implementation of proposed new waste reduction and public education programs in Skagit County relies on the hiring of a new staff person, but the cost for this person is shown under recycling programs because that would be their primary responsibility. Only the cost for the illegal dumping education is shown in Section 3.1.2.

For 3.2.1, again 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 waste quantities (4% annually). In other words, local differences in population growth, waste diversion programs, annexations and other factors are ignored for the purpose of these projections. See Tables 2.1, 2.2, 2.4 and 2.6 of the First Draft of the Skagit County Comprehensive Solid Waste Management Plan, November 2003.

Data for the number of tons from Burlington for Year 1 is for three months only, and no data is shown for subsequent years, because Burlington's collection system was privatized effective April 1, 2004.

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 (2002)	Total Revenue Generated (Tip Fee x Tons)
Skagit County RTS	Transfer Station	$82.00/ 83.00	Short haul expense is included in general operating costs	Near intersection of Farm to Market Road and Ovenell Road	Roosevelt Landfill	89,891 (or 87,900 excluding Sauk and Clear Lake sites)	$7,040,825
Sauk Transfer Station	Drop box	$83.00	$74,130	Between Concrete and Rockport	Transferred to Skagit County RTS, then to Roosevelt Landfill		$112,334
Clear Lake Site	Drop box	$12.00 per use	$9,724	Near intersection of Hwy. 9 and South Skagit Hwy.	Transferred to Skagit County RTS, then to Roosevelt Landfill		$70,790

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 RTS	0	0	0	see op. cost	see below	see below	NA
Sauk Transfer Station	0	0	0	see op. cost	see below	see below	NA
Clear Lake Site	0	0	0	see op. cost	see below	see below	NA
All sites together	0	0	0	see op. cost	$5,356,340	$948,399	$1,088,588

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					CPG	$80,429	99%			
Sauk Transfer Station							100%			
Clear Lake Site							100%			

Table 4.1.4 Tip Fee Forecast

Tip Fee per Ton by Facility	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Skagit County RTS	$82.00/$83.00	$82.00/$83.00	$82.00/$83.00	$82.00/$83.00	$83.00/$84.00	$83.00/$84.00
Sauk Transfer Station	$83.00	$83.00	$83.00	$83.00	$84.00	$84.00
Clear Lake Site	$12.00 per use	$12.00 per use	$12.00 per use	$12.00 per use	$12.00 per use	$12.00 per use

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	20	80					100%
Recycling	4				96		100%
Collection					100		100%
ER&I			100				100%
Transfer	100						100%
Land Disposal			100				100%
Administration	100						100%
Other							NA

Table 4.2.2 Funding Mechanism by Percentage - Year Three

Component	Tip Fee %	Grant %	Bond %	Collection Tax %	Rates and Charges %	Other %	Total
Waste Reduction	20	80					100%
Recycling	4				96		100%
Collection					100		100%
ER&I			100				100%
Transfer	100						100%
Land Disposal			100				100%
Administration	100						100%
Other							NA

Table 4.2.3 Funding Mechanism by Percentage Year Six

Component	Tip Fee %	Grant %	Bond %	Collection Tax %	Rates and Charges %	Other %	Total
Waste Reduction	20	80					100%
Recycling	4				96		100%
Collection					100		100%
ER&I			100				100%
Transfer	100						100%
Land Disposal			100				100%
Administration	100						100%
Other							NA

4.3 References and Assumptions

In Table 4.1.1, the tip fee is $82.00 for municipal haulers and $83.00 for private haulers and self-haul customers.

Data in Table 4.1.2 is based on 2003 budget (see Table 8.1 of Skagit County Comprehensive Solid Waste Management Plan, page 8-4 of the First Draft, November 2002). Expenses shown for operational costs include transfer station costs, disposal fees, compactor costs and the hazardous waste facility, minus recycling fees and grant revenues applied to the hazardous waste facility. Administration costs include administration, environmental, education, and training, minus grant revenues used for education. Closure costs include debt service on the closed incinerator as well as the landfill.

For Table 4.1.3, all operating expenses at the three facilities are paid by tipping fees except for a small amount of grant funds used for the hazardous waste facility at the RTS.

For Table 4.1.4, information on future tipping fees is not available at this time. It is anticipated that the County will establish tipping fees for the next three years in the fall of 2002.

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 ER&I and landfill expenses, although there are no facilities currently operating in the county there is still a large debt that is being paid off by prior bonds. Expenses for future years are assumed to remain the same as in the current year.

4.4 Surplus Funds

Not applicable.

APPENDIX C

SEPA CHECKLIST

APPENDIX C
SEPA CHECKLIST

INTRODUCTION

Ecology guidelines (Ecology 1999) require that the potential impacts of this Comprehensive Solid Waste Management Plan (CSWMP) be evaluated according to the State Environmental Policy Act (SEPA) process. This checklist has been prepared to fulfill that requirement.

SUMMARY

The SEPA checklist prepared for this CSWMP is intended only to address those programs specifically recommended by the CSWMP (primarily programs conducted by the public sector). Any proposed new facilities will need to undergo their own SEPA review process.

No negative environmental impacts are anticipated to result from the programs recommended in this CSWMP.

Planning & Permit Center

200 West Washington Street • Mount Vernon, Washington 98273
Phone: (360) 336-9410 • Fax: (360) 336-9416

ENVIRONMENTAL CHECKLIST

A. BACKGROUND INFORMATION

1. Name of proposed project, if applicable:

   Skagit County Comprehensive Solid Waste Management Plan (CSWMP).

2. Name of applicant:

   Skagit County.

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

   Gary Sorensen, P.G.
   Manager, Solid Waste Division
   Skagit County Public Works Department
   1800 Continental Way
   Mount Vernon, WA 98273
   Phone: 360-336-9400
   Fax: 360-336-9478

   Rick Hlavka
   Consultant
   Green Solutions
   PO Box 680
   South Prairie, WA 98385
   Phone: 1-360-897-9533
   Fax: 1-360-897-8923

4. Date checklist prepared:

   January 29, 2003 (revised August 30, 2004)

5. Agency requesting checklist:

   Skagit County Public Works Department.

6. Proposed project 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 has undergone public review and comment. A final copy of the Solid Waste Management Plan is expected to be approved by Ecology in 2005.

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 of pending applications for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

   A private company has proposed to build a transfer station and recycling center next to the County's transfer station. These plans are mentioned briefly in the Solid Waste Management Plan. This SEPA Checklist is intended to address only the programs and activities specifically recommended, 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 proposals, if known:

    State Law (RCW 70.95.094) and guidelines issued by the Department of Ecology (Guidelines for the Development of Local Solid Waste Management Plans and Plan Revisions, December 1999) require the eight cities to adopt the plan (or else 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. Before adoption by the County and cities, Skagit County policy requires that this plan be reviewed by the Planning Commission because this solid waste plan is considered to be an integral part of the County's Comprehensive Plan. After adoption by the County and cities, Ecology must approve of the plan before it becomes effective.

11. Give a 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 which ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

    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 1994, is out of date on several significant points. The proposed new plan recognizes changes that have occurred in disposal facilities (the incinerator and in-county landfill have been closed), legal requirements and other points.

    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 summarized as follows (see plan for more details):

    - **A study must be conducted prior to any significant investments that depend on the composition of the waste stream (Recommendation #B1).**
    - **Existing waste reduction activities should be continued (#WR1).**
    - **A measurement method is needed to determine the level of waste reduction, and the County should monitor progress on the development of such measurement methods on the State and Federal levels (WR2).**
    - **The County should promote the establishment of a local reusable building materials store (WR3).**
    - **Public education is an essential element of the solid waste management system, and the current level of effort must be maintained (PE1).**

- **The County, contingent on the hiring of a new Recycling Coordinator (see Recommendation #R3) and with assistance from the cities and private sector as appropriate, should investigate the potential for a local program patterned after the "EnviroStar" program used in other areas, to promote business involvement in waste diversion activities (PE2).**
- **Public education activities discouraging illegal dumping need to be continued (PE3).**
- **Skagit County's waste diversion goal (including waste reduction, recycling and composting) should be to show continued improvement each year in programs and the recycling rate, with an eventual goal of 50% waste diversion (waste reduction, recycling and composting). To reach this goal, the service gaps shown in Section 4.2.5 will need to be addressed (R1).**
- **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 (see Table 6.2) (R2).**
- **In order to avoid diverting existing staff from their current responsibilities, the County should hire a Recycling Coordinator, on at least a part-time basis, to assist with the implementation of the recycling and other waste diversion recommendations (R3).**
- **Any proposals for mixed waste processing should be cautiously considered due to the history of problems and failures that have occurred with this technology. Such proposals would be subject to normal permitting requirements and compatibility with the System Policy shown in Section 7.2.3 (R4).**
- **Curbside yard debris collection should be offered in all UGAs and in the rural areas west of Highway 9 (C1).**
- **The County Recycling and Waste Reduction Educator should continue offering educational materials about home composting of food waste (C2).**
- **Any proposals for food waste composting should be considered, subject to normal permitting requirements and compatibility with the System Policy shown in Section 7.2.3 (C3).**
- **Any proposals for solid waste composting should be cautiously considered due to the history of problems and failures that have occurred with this technology. Such proposals would be subject to normal permitting requirements and compatibility with the System Policy shown in Section 7.2.3 (C4).**
- **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 (WC1).**
- **Incentive rates for residential customers, where the cost of recycling is attached to the base rate for garbage collection and the customers who recycle pay a lower monthly fee, should be added in the Recycling Service Area. Additional incentives and alternative rate structures that promote waste reduction and recycling should also be considered (WC2).**
- **A summary of the preferred service levels for garbage collection, recycling, and yard debris (as discussed in Chapters 4 through 6) is shown in Table 6.2. These services are adopted as the minimum requirements for these services in the Skagit County (WC3).**
- **The Health Department shall modify their solid waste regulations to require ongoing contract compliance as a condition of the annual solid waste facility permit renewal requirements. That provision should also clearly state what facilities are covered under the regulations (SP1).**
- **More than one transfer station should be allowed to operate in Skagit County, subject to normal permitting requirements and compatibility with the System Policy shown in Section 7.2.3 (T1).**
- **Any facility within the System shall honor the current waste export contract (WE1).**
- **Old landfills that are known to exist throughout the County, and newly discovered dumps as these are discovered, must be further investigated to develop a better assessment of long-term liability, public and environmental health risks. As a result of these investigations, additional remedial actions may be necessary (L1).**
- **Penalties for illegal dumping should be increased and should include a requirement for violators to spend time on a litter crew (RA1).**
- **Ongoing efforts by Ecology (to prevent water quality impacts) and the Conservation District (to promote best management practices) should be encouraged and supported as appropriate (S1).**

- **The local solid waste code should be updated to define where and how biomedical wastes can be handled at Skagit County facilities (S2).**
- **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, including possible measures such as requiring that a "solid waste and recycling plan" be submitted with building permit applications, especially for projects that will cost in excess of $15,000, and/or implementing a deposit system, with the deposit refunded upon documentation of proper waste disposal (such as a receipt for disposal costs) (S3).**
- **Recognition programs should be considered for contractors with a proven history of proper disposal (S4).**
- **Additional education should be conducted on the need for proper disposal and the problems associated with illegal dumping (S5).**
- **In the event of a disaster, this CSWMP recommends using public properties for temporary storage/staging areas, and further recommends recycling where feasible. Materials that cannot feasibly be recycled should be disposed of properly (S6).**
- **This CSWMP recommends improved communications between the Health Department, other municipal agencies and garbage collectors dealing with improper disposal of grease (S7).**
- **The Conservation District and Department of Ecology should be encouraged to work with food processors to develop better methods for handling their waste streams (S8).**
- **Recycling of inert wastes should be encouraged (S9).**
- **This CSWMP recommends in favor of adopting the local MRW code, as previously recommended in the MRW Plan (S10).**
- **A collection program should be developed to handle fluorescent bulbs from residential sources (S11).**
- **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 (S12).**

12. Location of the proposal. Please give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any. If a proposal should occur over a range of area, please provide the range or boundaries of the site(s). *(Indicate if maps or plans have been submitted as part of a permit application.)*

    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 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 *(describe)*: **Not applicable – non-project proposal.**

b. What is the steepest slope on the site *(approximate % slope)*? **Not applicable – non-project proposal.**

c. What general types of soils are found on the site *(i.e. clay, sand, gravel, peat, muck)* ? If you know the classification of agricultural soils, please specify and note any prime farmland.
Not applicable – non-project proposal.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe:
Not applicable – non-project proposal.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill: **Not applicable – non-project proposal.**

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. **Not applicable – non-project proposal.**

g. About what percent of the site will be covered with impervious surfaces after project construction *(for example, asphalt or buildings)*? **Not applicable – non-project proposal.**

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: **Not applicable – non-project proposal.**

2. Air

a. What types of emissions to the air would result from the proposal *(i.e. dust, automobile, odors, industrial wood smoke)* during construction, and when the project is completed? If any, generally describe and give approximate quantities if known. **Not applicable – non-project proposal.**

b. Are there any off-site sources of emissions or odor which may affect your proposal? If so, generally describe. **Not applicable – non-project proposal.**

c. What are the proposed measures to reduce or control emissions or other impacts, if any: **Not applicable – non-project proposal.**

3. Water

a. Surface:

1) Is there any surface water on or in the immediate vicinity of the site *(including year-round and seasonal stream, saltwater, lakes, ponds, associated wetlands)*? If yes, describe type, provide names, and, if known, state what stream or river it flows into. **Not applicable – non-project proposal.**

2) Will the project require any work over or adjacent to *(within 200 feet)* the described waters? If yes, please describe and attach available plans. **Not applicable – non-project proposal.**

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the are of the site that would be affected. Indicate the source of fill material. **Not applicable – non-project proposal.**

4) Will surface water withdrawals or diversions be required by the proposal? Give general description, purpose, and approximate quantities if known. **Not applicable – non-project proposal.**

5) Does the proposal lie with a 100-year flood plain? Note location on the site plan, if any. **Not applicable – non-project proposal.**

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. **Not applicable – non-project proposal.**

b. Ground:

1) Will ground water be withdrawn or recharged? Give general description, purpose, and approximate quantities if known. **Not applicable – non-project proposal.**

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any *(for example: domestic sewage; industrial, containing the following chemicals . .; agricultural; etc.)*. Describe the general size of the system, the number of such systems, the number of houses to be served *(if applicable)*, or the number of animals or humans the system(s) are expected to serve. **Not applicable – non-project proposal.**

c. Water runoff *(including storm water)*:

1) Describe the source of runoff and storm water and method of collection and disposal, if any *(including quantities, if known)*. Where will this water flow? Will this water flow into other waters? If so, please describe. **Not applicable – non-project proposal.**

2) Could waste materials enter ground or surface waters? If so, generally describe. **Not applicable – non-project proposal.**

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any: **Not applicable – non-project proposal.**

4. Plants

a. Check "✕" or circle "○" types of vegetation found on the site: **Not applicable – non-project proposal.**

b. What kind and amount of vegetation will be removed or altered? **Not applicable – non-project proposal.**

c. List threatened or endangered species known to be on or near the site. **Not applicable – non-project proposal.**

d. List proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: **Not applicable – non-project proposal.**

5. Animals

a. Circle "○" any birds and animals which have been observed on or known to be on or near the site: **Not applicable – non-project proposal.**

b. List any threatened or endangered species known to be on or near the site: **Not applicable – non-project proposal.**

c. Is the site part of a migration route? If so, explain. **Not applicable – non-project proposal.**

d. Proposed measures to preserve or enhance wildlife, if any: **N/A.**

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 needs? Describe whether it will be used for heating, manufacturing, etc. **N/A.**

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

c. What kinds of energy conservation features are included in the plans of this proposal? **N/A.**

d. What are the proposed measures to reduce or control energy impacts, if any? **N/A.**

7. Environmental Health

a. Are there any environmental health hazards, exposure to toxic chemicals, including risk of fire and explosion, spill, or hazardous waste, that occur as a result of this proposal? If so, describe. **N/A.**

b. Describe special emergency services that might be required. **N/A.**

c. What are the proposed measures to reduce or control environmental health hazards, if any? **N/A.**

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? **N/A.**

b. Has the site been used for agricultural purposes? If so, describe. **N/A.**

c. Describe any structures on the site. **N/A.**

d. Will any structures be demolished? If so, what. **N/A.**

e. What is the current zoning classification of the site? **N/A.**

f. What is the current comprehensive plan designation of the site? **N/A.**

g. If applicable, what is the current shoreline master program environment designation of the site? **N/A.**

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify. **N/A.**

i. What are proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: **N/A.**

j. Approximately how many people would reside or work in the completed project? **N/A.**

k. Approximately how many people would the completed project displace? **N/A.**

l. What are proposed measures to avoid or reduce displacement or other impacts, if any? **N/A.**

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. **N/A.**

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. **N/A.**

c. What are proposed measures to reduce or control housing impacts, if any? **N/A.**

10. Noise

a. What types of noise exist in the area which may affect your project *(for example: traffic, equipment, operation, other)*? **N/A.**

b. 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)*? **N/A.**

c. What are the proposed measures to reduce or control noise impacts, if any? **N/A.**

11. Aesthetics

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

b. What views in the immediate vicinity would be altered or obstructed? **N/A.**

c. What are the proposed measures to reduce or control aesthetic impacts, if any? **N/A.**

12. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? **N/A.**

b. Could light or glare from the finished project be a safety hazard or interfere with views? **N/A.**

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

d. What are the proposed measures to reduce or control light and glare impacts, if any: **N/A.**

13. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity? **N/A.**

b. Would the proposed project displace any existing recreational uses? If so, describe. **N/A.**

c. What are the proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any? **N/A.**

14. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe. **N/A.**

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on the site. **N/A.**

c. What are the proposed measures to reduce or control impacts, if any? **N/A.**

15. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any. **N/A.**

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop? **N/A.**

c. How many parking spaces would the completed project have? How many would the project eliminate? **N/A.**

d. Will the proposal require any new roads or streets, or improvements to any existing roads or streets, not including driveways? If so, generally describe *(indicate whether public or private)* **N/A.**

e. Will the project use or occur in the immediate vicinity of water, rail, or air transportation? If so, generally describe. **N/A.**

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur. **N/A.**

g. What are proposed measures to reduce or control transportation impacts, if any? **N/A.**

16. Public Services

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

b. What are proposed measures to reduce or control direct impacts on public services, if any? **N/A.**

17. Utilities

a. Circle "○" utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other *(describe)*. **N/A.**

b. Describe the utilities which are proposed for the project, the utility providing the service, and the general construction activities of the site or in the immediate vicinity which might be needed. **N/A.**

C. SIGNATURE

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

Signature:_____

Date Submitted:_____

D. SUPPLEMENT SHEET FOR NONPROJECT ACTIONS

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

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

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

   Implementation of the proposed recommendations should help reduce the amount of water and air discharges, while increasing the proper handling of any solid or toxic wastes that are generated in the county. There should not be a significant increase or reduction in noise as a result of the recommendations.

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

   Any impacts to plants, animals, fish and marine life will only be incidental and should be beneficial. Activities such as reducing illegal dumping should help reduce impacts to plant and animal life. Encouraging composting of yard debris should also be beneficial to plant life (assuming proper application of the compost), although probably only in urban environments.

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

   Not applicable.

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

   The proposed recommendations should help reduce energy demands and help to conserve natural resources, by increasing waste reduction and other activities. Increased recycling should not only lead to conservation of natural resources but also reduces energy demands. In general, using recycled materials in place of virgin materials requires significantly less energy in the manufacturing process.

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

   Not applicable.

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

   Most of these areas should be unaffected by the recommendations in the solid waste management plan, although a few recommendations encourage improved handling of wastes from farm lands, which could in turn lead to a reduction in impacts to wetlands and surface waters.

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

   Not applicable.

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

   No direct impacts to land or shoreline use are anticipated to result from the proposed recommendations.

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

   Not applicable.

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

   The proposed recommendations should lead to minor reductions in transportation requirements and public services. The recommendation for every other week collection and other changes in garbage collection should lead to a lower requirements for public services (in those four cities with municipal garbage collection). Transportation of solid waste out of the county should be lessened by increased waste reduction and recycling.

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

   Not applicable.

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

   No such conflicts are likely. The intent of updating the solid waste management plan is to comply with various laws and requirements (especially on the state level) regarding environmental protection and other factors.

DETERMINATION OF NONSIGNIFICANCE (DNS)
Non-Project: update to Skagit County's solid waste management and disposal plan

PROJECT DESCRIPTION: A non-project, legislative action to update the long range plan for solid waste management and disposal in Skagit County. The Comprehensive Solid Waste Management Plan (CSWMP) was prepared to provide a guide for solid waste activities in Skagit County. Skagit County is required by State law to prepare and maintain a "coordinated, comprehensive solid waste management plan" in a "current and applicable condition" (RCW 70.95). The existing plan, developed in 1994, is out of date on several significant points. The proposed new plan recognizes changes that have occurred in disposal facilities, statutory and legal requirements and makes general recommendations regarding waste reduction and public education; recycling; composting; waste collection; transfer and disposal; regulation and administration; and, the handling of special wastes.

PROPONENT: Skagit County Public Works Department, c/o Gary Sorensen, P.G., Manager – Solid Waste Division, 1800 Continental Way, Mount Vernon, WA 98273.

PROJECT LOCATION: Skagit County

LEAD AGENCY: Skagit County Planning and Permit Center.

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(C). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

This DNS is issued under WAC 197-11-340. The Lead agency will not act on this proposal for 15 days from the date of publication below.

Comments must be submitted by: 10-15-04.

You may appeal this threshold determination by addressing those criteria as set forth in Skagit County Code 14.06 and 14.12. and then by filing such with the Skagit County Planning and Permit Center for service to the SEPA responsible official. Appeals must be submitted within fourteen (14) days of the end of the comment period.

Appeals must be submitted by 10-29-04.

APPENDIX D

COMMENTS RECEIVED ON THE PRELIMINARY DRAFT COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

APPENDIX D
COMMENTS RECEIVED ON THE PRELIMINARY DRAFT COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

INTRODUCTION

This appendix contains the comments received and the responses prepared for those comments.

Comments are provided in two groupings, with the comments received during the public review period shown first, preceded by a letter from Skagit County Public Works Department explaining how those comments were addressed. The second grouping shows the comments received from the Department of Ecology and the Washington Utilities and Transportation Commission, preceded by a memo from Green Solutions explaining how those comments were addressed in the CSWMP.

SKAGIT COUNTY
PUBLIC WORKS DEPARTMENT

1800 Continental Place, Mount Vernon, WA 98273-5625 (360) 336-9400 FAX (360) 336-9478

May 25, 2004

Peter Christiansen
Department of Ecology
3190 160th Ave SE
Bellevue, WA 98008

RE: Skagit County Solid Waste Management Plan

Dear Peter,

Attached are the comments received on the preliminary draft of the Comprehensive Solid Waste Management Plan (CSWMP), and shown below are the proposed responses. Comments are attached and addressed below in the order received.

The first two comments received were in response to a newspaper article and were not responding directly to the draft CSWMP, but are included here because these were received during the public review period for the plan.

Comments received from: Jason Byrn, citizen.
Summary: Mr. Byrn stated that Skagit County should get out of the waste management business. Other issues are also raised in his comments, and he closes with an appeal to look back at the reasons for founding the county to provide direction for current activities.
Staff Response: An examination of the history of waste disposal would show that there are reasons for the current county involvement, and that the structure of waste disposal methods, both here and elsewhere, has been evolving, especially in terms of private and public roles. Issues related to public and private roles have been examined by the Solid Waste Advisory Committee (SWAC) and have been considered in the drafting of the current plan.
Staff Recommendation: No revisions are proposed in response to this comment.

Comments received from: Bob Anderson, citizen.
Summary: Mr. Anderson feels that there should be more public involvement in waste management issues. He apparently feels that the county should stay involved or at least maintain control over the system. The primary action requested by this commenter appears to be a request for more opportunities for public input.
Staff Response: Several opportunities for public input have been provided recently as part of the CSWMP review process (in other words, shortly after this comment was received), and staff hopes that these opportunities have helped to address Mr. Anderson's concerns.
Staff Recommendation: Since there have been recent opportunities for public input, no additional actions are being proposed in response to this comment.

The following two comments were received as part of the public hearing held on March 9, 2004.

Comments received from: Carol Ehlers, citizen.
Summary: Ms. Ehlers commented that the public tipping area is an important option and is helping to significantly reduce or eliminate illegal dumping in certain areas. An important aspect of h comments was that having the tipping fee for the public must be set at a low cost to discourage illegal dumping. The specific disposal site was not important in this person's comments, although one might surmise that a convenience factor plays into the idea of effectiveness against illegal dumping.
Staff Response: This comment should be discussed further at a SWAC meeting and consideration given to the idea of recommending a policy or requirement that the primary disposal facility (or all disposal facilities) must continue to provide a low tipping fee to self-haulers, as part of a strategy to discourage illegal dumping. The CSWMP already speaks to the two satellite facilities providing an important option against illegal dumping, but we may also wish to consider a stronger statement for those sites, too.
Staff Recommendation: This idea should be discussed further by the SWAC, with the possibility of taking a stronger stance on policies that further discourage illegal dumping.

Comments received from: Norm Wietting, Co-Owner, Cimarron Transfer and Recycling Co.
This commenter made verbal statements at the public hearing as well as submitting a letter containing the same points. His comments are addressed below in the same order as shown in his letter.

1. Summary: Mr. Wietting's first comment was that "Chapter 7 … imposes a set of onerous conditions…"
   Staff Response: The System Policy shown in Chapter 7 (presumably this comment is directed at Part G of that policy, shown on pages 7-5 and 7-6 of the Preliminary Draft CSWMP) are intended to be a comprehensive list of potential requirements that would apply in different ways and to different degrees depending on the nature and capacity of a wide range of possible new public or private facilities. It should be noted that the components of the System fee listed in 7.2.3.G(7) do not include any costs that are not already being paid by the existing County facility. In other words, the System fee is currently fully allocated within the current tip fee and against all tonnage generated within the County, and every customer is paying the System fee equally. If these costs are not spread equally across all of the tons of waste being generated in the County then taxpayers or customers of the county's transfer station will disproportionately pay more per ton to cover these System fee costs. The System fee should be allocated to all tonnage generated within the County equally regardless of whether a disposal facility is privately or publicly owned.
   Staff Recommendation: No revisions to the CSWMP are proposed in response to this comment.

2. Summary: Mr. Wietting's second comment touches on the issues of system capacity and the county's cost for operating the existing transfer station. The second part of this comment also states that Public Works staff have refused to review the information provided by Mr. Wietting on the cost of operating the transfer station.

Response to Norm Wietting's comments, continued:

Staff Response: SWAC members have discussed the issue of capacity at length and have concluded nearly unanimously that the system does not need a second facility at this time, and probably cannot support two facilities with an acceptable degree of long-term stability.

The information provided by Mr. Wietting has been reviewed by staff and staff's analysis of future tipping fees has already been modified based on that information. These issues will, however, be examined in greater detail through a study required by the new interlocal agreement. That agreement requires a "rate and efficiency study" that should help address any questions about the efficiency of the current operations and the amount of system fee required.
Staff Recommendation: The CSWMP should be modified to note the upcoming rate and efficiency study required by the new interlocal agreement. The information provided by that study should be used in the future to implement any appropriate changes at the transfer station (in response to reduced waste flows or to increase efficiency) and to set the system fee for any new facilities.

3. Summary: Mr. Wietting's third comment states that a few paragraphs in Section 7.3.4 should be deleted because these refer to discussions held by SWAC about recommendations that were not included in the final recommendations of the CSWMP.
   Staff Response: State law and Ecology's planning guidelines require evidence of SWAC participation and consideration of the issues, and this is one of the most important issues addressed in this draft of the CSWMP.
   Staff Recommendation: No revisions to the CSWMP are proposed in response to this comment.

4. Summary: Mr. Wietting's fourth comment states that the language of Chapter 7 does not meet the purpose of the chapter. This comment also requests the deletion of one of the components of the system fee shown in 7.2.3 (G).
   Staff Response: The language shown in this comment is taken out of context. The first purpose stated for the System Policy is to "allow the development of a competitive environment ... that will preserve the System's ability to fulfill its solid waste related financial obligations and legal mandates." Two additional purposes listed for the System Policy echo the idea that the system needs to continue to function in several important ways, and with this emphasis it should be clear that the need to maintain stability in the system is a higher priority than simply encouraging competition or privatization.
   The second part of this comment will be addressed by the rate and efficiency study required by the new interlocal agreement. The results of that study should demonstrate whether the operational costs of the county's transfer station can be sufficiently reduced to keep tipping fees at the current level, or whether a new facility would cause unavoidable financial impacts that need to be included in the system fee.
   Staff Recommendation: The CSWMP should be modified to note the upcoming rate and efficiency study required by the new interlocal agreement, and the use of that study's results to implement operational changes and provide guidance for the system fee.

Response to Norm Wietting's comments, continued:

5. Summary: Mr. Wietting's fifth comment states that the CSWMP doesn't do enough to "insure the development of environmentally sound solid waste handling and disposal" and requests that all recycled materials (not just materials from source-separation programs) be exempt from the system fee.
   Staff Response: Source-separation has a proven track record of successfully diverting recyclable materials using methods that minimize environmental and financial risks. Conversely, the track record for mixed waste processing, and especially solid waste composting, shows a long history of plant failures and other problems. While the CSWMP allows for the development of this technology in the hopes that it might be able to divert materials to a productive end use, no special considerations should be provided in this case. Part of the concern in this case lies in the fact that there is no guarantee at this time that the County or others will be able to monitor waste flows in a private facility sufficiently well to know the final disposition of recycled or disposed materials from Skagit County.
   Staff Recommendation: No revisions to the CSWMP are proposed in response to this comment.

6. Summary: Mr. Wietting's sixth comment requests that the word "every" be deleted from Section 7.2.3 (H), where it states that "every reasonable effort shall be made to arrange for employment of System employees whose jobs may be lost as a direct result of the private facility operations."
   Staff Response: Staff believes the phrase "every reasonable effort," although subjective, better describes the intent of the Board of Skagit County Commissioners in this matter.
   Staff Recommendation: Consideration will be given to implementing this change, but this issue should be discussed first with the SWAC.

7. Summary: Mr. Wietting's seventh comment states that Section 7.2.3 (I) should be revised to state that the gatehouse operations at a private facility will be monitored as provided in the contract.
   Staff Response: The current language states that the scalehouse will be monitored to the "satisfaction of the System." Presumably, if the County enters into a contract with a private facility and that contract addresses how the scalehouse will be monitored, then the provisions of that contract would be considered satisfactory to the System.
   Staff Recommendation: The existing language provides for options in the future, which is important since it cannot be assumed that all possible scenarios for new private (or public) facilities can be anticipated at this time. In the interests of providing future flexibility for all, no revisions to the CSWMP are being proposed in response to this comment.

Response to Norm Wietting's comments, continued:

8. Summary: Mr. Wietting's eighth comment states that there are problems with a previous report, including the fact that it was not reviewed by the SWAC members and others.
   Staff Response: The report in question was not discussed with the SWAC, although it should be noted that this was simply the result of the report's release date not fitting well into the SWAC's workload during that period. Mr. Wietting's concerns will be addressed by the rate and efficiency study required in the new interlocal agreement. As required in the interlocal agreement, that study will be managed by the Transfer Station Oversight Committee and the results will be reviewed with the SWAC.
   Staff Recommendation: The CSWMP should be modified to note the upcoming rate and efficiency study required by the new interlocal agreement, and the use of that study's results to implement operational changes and provide guidance for the system fee.

9. Summary: Mr. Wietting's ninth comment states that the customers of the Clear Lake disposal site pay $85 per ton while the customers at the Sauk Transfer Station pay $150 per ton. He expresses concern that the customers of Clear Lake are receiving a subsidy that should be re-considered.
   Staff Response: The users of the Sauk Transfer Station pay $83.00 per ton plus refuse tax, not $150 per ton. This is the same fee charged at the Ovenell Transfer Station. The Clear Lake site does not operate a scale and the established fee is based on $4.00 per standard residential 32-gal trash can. These fees are established by the Board of County Commissioners. Establishing these two remote sites and setting similar fees at all three County system facilities is considered part of the strategy to discourage illegal dumping. By encouraging proper disposal, the high costs of cleaning up illegally-dumped garbage is reduced and the quality of life in Skagit County is enhanced.
   Staff Recommendation: Consideration should be given (by the Transfer Station Oversight Committee) to examining the tipping fees at the two rural sites as part of the rate and efficiency study.

10. Summary: Mr. Wietting's tenth and final comment states that the "only goal" for the household hazardous waste program is to reduce the amount of this waste going to the landfill to reduce RDC's liability.
    Staff Response: There are many good reasons for providing a collection program for these types of wastes, including protecting human health and the environment in Skagit County, reducing the potential for exposure for solid waste workers (including garbage haulers, transfer station employees, and others), and increasing the public's awareness of potential hazards to the users of these products. Landfill liability is actually a very low priority for this program, although mixed waste processing facilities could have a high concern for this issue due to the potential for worker exposure and equipment damage.

Staff Recommendation: No revisions to the CSWMP are proposed in response to this comment.

Comments received from: Ron Wortham, President, North Puget Sound Association of Realtors. This commenter provides a good review of the plan's components and it is interesting to hear that these were reviewed from a quality of life standpoint as well as issues that might impact future developments. Four specific comments were provided:

1. Summary: The first comment made by Mr. Wortham is that the siting criteria in Chapter 2 should be modified to note that "current and planned future land use" should be included in the consideration of what constitutes unsuitable neighboring land use for solid waste facilities. The primary concern appears to be the potential for developing solid waste facilities where these might be "inconsistent with the County's future development plans."
   Staff Response: We believe this issue is best addressed by zoning and permitting regulations and hence should be deferred to the Planning Commission, which will be reviewing the CSWMP later this year. Any modifications made without first consulting with the Planning Commission could run the risk of being contradictory or preemptive.
   Staff Recommendation: This issue should be taken up by the Planning Commission in their review of the CSWMP, with changes or clarifications made in the CSWMP based on their recommendations.

2. Summary: The second comment made by Mr. Wortham was in support of the illegal dumping recommendations.
   Staff Response: Mr. Worth's comments on this issue are supportive of the recommendations currently made.
   Staff Recommendation: No specific actions are needed in response to this comment as long as we are not proposing to reduce or eliminate any recommendations concerning illegal dumping.

3. Summary: The third comment made by Mr. Wortham provides an analysis of the concept of mandatory garbage collection.
   Staff Response: From the perspective of future developments, Mr. Wortham notes that requiring garbage collection in the UGA's would help ease the annexation process (which we hadn't considered previously), although as noted in his comments there are significant barriers to implementing this approach (i.e., the requirement to create a solid waste district, which itself is contrary to other goals).
   Staff Recommendation: This comment will be considered in the next set of revisions to the CSWMP, with the idea of clarifying current language (such as clarifying that Recommendation #R2 does refer only to recycling collections, not to garbage collections).

4. Summary: The fourth comment made by Mr. Wortham was to note an error in the figures on page 6-2, where data is shown in square miles instead of acres.
   Staff Response: Figures for square miles were mistakenly shown on page 6-2 instead of the intended acreage figures.
   Staff Recommendation: The figures should be corrected in the next draft.

Comments received from: Bud Norris, Mayor, City of Mount Vernon.
Summary: The primary comment made by the Mayor is to request deletion of language that would allow additional transfer stations to be constructed in Skagit County. He (and others) continues to raise concerns about the future stability of the solid waste system, the need to pay off the existing debt, and the lack of tonnages adequate to support two facilities.
Staff Response: The Board of County Commissioners has expressed a desire to allow multiple transfer stations, but the Mayor will be able to address these concerns and other details through future meetings of the Municipalities Committee (as described in the new interlocal agreement).
Staff Recommendation: No revisions to the CSWMP are proposed in response to this comment.

Comments received from: Scott Sutherland, City of Mount Vernon staff and Chair of the Solid Waste Advisory Committee.
Summary: The Solid Waste Advisory Committee (SWAC) has discussed the issue of multiple transfer stations at length on numerous occasions. The SWAC's position is that multiple transfer stations are potentially disruptive, unnecessary and should not be allowed. In addition to reaffirming this position in his letter, Mr. Sutherland attached a document previously prepared by the SWAC that describes this position in greater detail.
Staff Response: These issues have been discussed at length, and the Board of County Commissioners has expressed a desire to allow multiple transfer stations.
Staff Recommendation: No revisions to the CSWMP are proposed in response to this comment.

The following comments were received after the deadline for comments had officially passed, but these are still being included in this response summary.

Comments received from: Terry Christiansen, City of Anacortes Council Member.
Mr. Christiansen made numerous comments on the CSWMP. These were not numbered in his original copy, but numbers have been added to the attached document to facilitate review of the responses provided below.

1. Summary: The first comment by Mr. Christiansen raises the question as to why a Recycling Coordinator is needed and expresses concern about the cost of this position.
   Staff Response: The CSWMP recommends several new activities, and several members of the SWAC as well as staff felt it was important to note that accomplishing those activities would be contingent on an additional staff person since existing staff already have full workloads. The question of a more detailed job description and whether that position would be cost-effective is best left to the annual budget and work planning process, but a summary describing the primary duties for the Recycling Coordinator is provided on pages 4-9 and 4-10 of the CSWMP. Note that the WUTC has estimated that the cost of this position (if paid by tipping fees) translates to $0.16 per month for residential customers and $0.18 per month for commercial customers.
   Staff Recommendation: No revisions are proposed in response to this comment.

Response to Terry Christiansen's comments, continued:

2. Summary: Mr. Christiansen's second comment requests deletion of the three recommendations for waste collection on the grounds that these decisions should be left to the entity (city or county) with jurisdiction over a particular area.
   Staff Response: Recommendations WC1, WC2, and WC3 have important implications for achieving countywide recycling and garbage service goals. WC1 merely suggests that the cities consider an option for waste collection in their areas, but does not require it. Other alternatives, such as mandating specific recycling goals for each city, wouldn't improve flexibility for the cities (flexibility appears to be one of the concerns embodied in these comments). WC2 and WC3 primarily address the unincorporated areas (WC3 requires no new activities for the cities) and must be shown in the CSWMP in order for the County to exercise any control over programs in the unincorporated areas. Unlike cities, counties have no direct control over collections in the unincorporated areas and so this language needs to be in the CSWMP in order for the WUTC and Waste Management to implement these provisions.
   Staff Recommendation: No revisions are proposed in response to this comment.

3. Summary: Mr. Christiansen's third comment states that the waste export contract does not provide RDC with a guarantee to haul any waste out of the county.
   Staff Response: This interpretation of the waste export contract differs from most others. The more common interpretation of the waste export contract is that it gives RDC the right to export all of the solid waste from Skagit County. The County recently tried (without success) to clarify through a declaratory judgement whether the waste export contract provides RDC with a guarantee to haul all of the waste or only a portion of it. In the absence of a firm legal opinion to the contrary, Skagit County must assume that the RDC contract is valid for all municipal solid waste from the county and this CSWMP is based on that premise.
   Staff Recommendation: No revisions are proposed in response to this comment.

4. Summary: Mr. Christiansen's fourth comment questions a statement made that the cost for solid waste composting would be substantial (see Section 5.4.1, page 5-6).
   Staff Response: The conclusion that solid waste composting costs would be "substantial" is based on costs for similar facilities. Cost projections based on comparisons to actual facilities is an accepted practice. In this case, however, the value of this statement in the CSWMP is minimal and appears to be raising more questions than it answers, and so it could be deleted. Alternatively, more information could also be provided, such as referencing figures recently shown in the American Public Works Association Reporter, where an article provides a cost estimate of $60 to $75 per ton for solid waste composting (APWA Reporter, March 2004).
   Staff Recommendation: The last sentence in Section 5.4.1, beginning with "A complete cost analysis…", should be deleted.

Response to Terry Christiansen's comments, continued:

5. Summary: Mr. Christiansen's fifth comment notes an error in Table 6.1.
   Staff Response: The figures in Table 6.1 need to be updated per Anacortes' new recycling contract.
   Staff Recommendation: The figures in Table 6.1 will be revised to show the correct costs of recycling in Anacortes.

6. Summary: Mr. Christiansen's sixth comment objects to various provisions shown in Section 7.2.3 (G).
   Staff Response: The items shown in 7.2.3.G(7) are intended to be a comprehensive list of items that could be included in a future contract. As noted in this comment, some of these costs lack definition of the actual amounts, but are still shown here as a placeholder for future discussions. If these items cannot be defined at a future date, then likely these would not be included in a contract.
   Staff Recommendation: No revisions are proposed in response to this comment.

7. Summary: Mr. Christiansen's seventh comment objects to the idea that Skagit County operate the scalehouse at a private facility.
   Staff Response: The provision addressing scalehouse operation (see Section 7.2.3 (I)) provides for options, not all of which require that County staff be present in the scalehouse.
   Staff Recommendation: No revisions are proposed in response to this comment.

8. Summary: Mr. Christiansen's eighth comment notes that the options discussed by SWAC were never voted on by city councils. Additional points included in this comment refer to efficiencies at the county's transfer station.
   Staff Response: While it's true that mayors and program managers do not have voting authority to decide policy issues, the SWAC is a policy advisory committee and this is discussed in other parts of the CSWMP (see page 1-6 and see also responses already made to Mr. Wietting's third comment).
   The comments regarding efficiencies at the transfer station will be addressed by the rate and efficiency study required by the new interlocal agreement.
   Staff Recommendation: As previously noted, the CSWMP should be modified to mention the upcoming rate and efficiency study.

9. Summary: Mr. Christiansen's ninth comment remarks that a summary of another report provided in the second half of page 7-10 is unnecessary and should be deleted.
   Staff Response: The CSWMP should and does make reference to other plans when these have a bearing on the topics being addressed in the CSWMP. In this case, however, the information provided by the previous study will be replaced by the new study required by the interlocal agreement.
   Staff Recommendation: As previously noted, the CSWMP should be modified to mention the upcoming rate and efficiency study.

Response to Terry Christiansen's comments, continued:

10. Summary: Mr. Christiansen's tenth comment discusses the history of the incinerator.
    Staff Response: Staff agree that more could be written about the incinerator, but it seems counter-productive to spend more time on an issue with limited relevance to current conditions.
    Staff Recommendation: No revisions are proposed in response to this comment.

11. Summary: Mr. Christiansen's eleventh comment asks about the true reasons for a supplemental agreement to the waste export contract.
    Staff Response: This comment is unclear, as it is unknown what is being implied by the statement about the "true reasons for the Supplemental Agreement #2" of the waste export contract.
    Staff Recommendation: No revisions are proposed in response to this comment.

12. Summary: Mr. Christiansen's twelfth comment raises questions about improvements at the transfer station.
    Staff Response: These issues will be addressed by the rate and efficiency study required by the new interlocal agreement.
    Staff Recommendation: As previously noted, the CSWMP should be modified to mention the upcoming rate and efficiency study.

13. Summary: Mr. Christiansen's thirteenth comment states that Skagit County isn't interested in importing wastes from other counties but notes that import of wastes to a private facility could create financial benefits.
    Staff Response: The CSWMP simply points out that the importation of waste from outside of the county does not make sense financially for those other areas. Future proposals for any large-scale importation of waste should be reviewed on a case-by-case basis, although the County will probably have no control over any such shipments to a private facility. Whether or not Skagit County would reap any benefits from importation of waste to a private facility is unclear at this time.
    Staff Recommendation: No revisions are proposed in response to this comment.

14. Summary: Mr. Christiansen's fourteenth comment points out that a pre-load compactor is not necessarily a requirement for a waste export system.
    Staff Response: The statement in question was intended to be a general statement about the need for compaction in order to have an efficient system for waste export, but it does appear to be excessively presumptive in assuming how that compaction would be achieved.
    Staff Recommendation: The language for waste export alternatives on page 7-13 should be revised to say "Therefore, any facility that will export significant quantities of waste will be equipped with a pre-load compactor or will achieve compaction through other means" (underlined material shows new words to be added).

Response to Terry Christiansen's comments, continued:

15. Summary: Mr. Christiansen's fifteenth comment objects to the recommendation that the waste export contract should be honored and states that the SWAC should have researched this issue more thoroughly.
Staff Response: The SWAC discussed this issue extensively, and as previously mentioned the County attempted to clarify this question in a court proceeding. The recommendation was made in part because the cities and Skagit County were concerned about being sued for not honoring the waste export contract.
Staff Recommendation: No revisions are proposed in response to this comment.

16. Summary: Mr. Christiansen's sixteenth comment objects to any discussion of incineration as an option for solid waste disposal.
Staff Response: Staff agree that not much needs to be said about incineration as a viable option for handling garbage in Skagit County, but planning documents such as this CSWMP must give at least brief consideration to all possible options.
Staff Recommendation: No revisions are proposed in response to this comment.

17. Summary: Mr. Christiansen's seventeenth comment raises a question about the accuracy of the figures shown in Table 8.2.
Staff Response: The figures in Table 8.2 are correct as shown, as the intent is to show only the remaining principal amount in the line shown as "total remaining debt."
Staff Recommendation: The footnote regarding the "total remaining debt" should be revised to clarify that this is intended to be the principal amount only, and does not include interest.

18. Summary: Mr. Christiansen's eighteenth comment notes that a disposal district is undesirable but that a collection district should be considered.
Staff Response: A collection district or a disposal district would both be difficult to implement and neither are being recommended at this time.
Staff Recommendation: No revisions are proposed in response to this comment.

19. Summary: Mr. Christiansen's nineteenth comment questions the need for a recycling coordinator.
Staff Response: The issue of an additional staff person was also addressed in the first comment by Mr. Christiansen (see #1, above).
Staff Recommendation: No revisions are proposed in response to this comment.

20. Summary: Mr. Christiansen's final comment states that the new interlocal agreement should not be approved until the new CSWMP is adopted.
Staff Response: The Anacortes City Council has already adopted the Interlocal Agreement along with the other seven municipalities and the Board of County Commissioners..
Staff Recommendation: This comment doesn't request any changes in the CSWMP, and so no revisions are proposed in response to this comment.

Comments received from: Sharon Dillon, Mayor, City of Sedro-Woolley.
Summary: The one comment made by Mayor Dillon states that the language allowing additional transfer stations to be constructed in Skagit County is unacceptable. In her letter, Mayor Dillon raises concerns about the future stability of the solid waste system, the need to pay off existing debt, and the lack of tonnages adequate to support two facilities.
Staff Response: The Board of County Commissioners has expressed a desire to allow multiple transfer stations, but the Mayor will be able to address these concerns and other details through future meetings of the Municipalities Committee (as described in the new interlocal agreement).
Staff Recommendation: No revisions to the CSWMP are proposed in response to this comment.

Comments received from: David Bader, Principal, Environmental Health Services.
Summary: Mr. Bader commented that recent additions to the state's solid waste handling standards (WAC 173-350) places increased importance on the definition of recyclable materials contained in local solid waste management plans. Mr. Bader also comments that the categories for recyclable materials should be as broad as possible, such as showing "plastics" in the list rather than naming specific types of plastics.
Staff Response: The list of materials designated as recyclable is shown on page 4-6 of the preliminary draft of the CSWMP, and on this page is also a description of the process to be followed in updating the list of materials. The idea of making these categories as broad as possible raises some concerns due to the fact that there are many types of plastic and other materials (paper, wood, etc.) that are not recyclable and shouldn't be treated as such.
Staff Recommendation: The CSWMP appears to cover these issues adequately as written, and so no revisions to the CSWMP are being proposed in response to these comments.

This concludes our staff review and recommendations on the list of comments received on the CSWMP. If you have any comments or questions, please contact Gary Sorensen, Solid Waste Section Manager. Copies of the input comments are attached to this letter.

Sincerely,

Chal A. Martin, P.E.
Director/County Engineer

Enclosures (Input letters)

GarySorensen

From: KarenTurner
Sent: Wednesday, February 18, 2004 12:59 PM
To: GarySorensen
Subject: FW: dear commissioners

Karen Turner
Skagit County Commissioners Office
700 S 2nd St. Room 202
Mount Vernon, WA 98273
360-336-9300
360-336-9307 (fax)
karent@co.skagit.wa.us
-----Original Message-----
From: Jasonbyrn63@aol.com [mailto:Jasonbyrn63@aol.com]
Sent: Wednesday, February 18, 2004 12:45 PM
To: Commissioners
Subject: dear commissioners

dear commissioners,
i was reading the skagit valley herald today about having the cities sign on to the garbage disposal. in my option i think the country should sell the property to a private company and get out of it. the government should not be in private business. government is there only to provide- fire, police, roads and schooling. the government has overstepped in bounds. these days the government is trying to compete with all businesses. we got government running a landscaping business at a price that other businesses cant compete against, we got them running the dumps when waste management or another company could run it, and we got cites building fiber lines when there are companies that are in the business of doing that. so please look back at how this country was founded and please think about going out of the garbage business

thank you
Jason byrn

GarySorensen

From: KarenTurner
Sent: Monday, February 23, 2004 9:13 AM
To: GarySorensen
Subject: FW: Incinerator issue

Here is an e-mail we received on Solid Waste.

Karen Turner
Skagit County Commissioners Office
700 S 2nd St. Room 202
Mount Vernon, WA 98273
360-336-9300
360-336-9307 (fax)
karent@co.skagit.wa.us

-----Original Message-----
From: Robert Anderson [mailto:earthspiritcircle@earthlink.net]
Sent: Friday, February 20, 2004 8:37 PM
To: commish
Subject: Incinerator issue

Dear Don.

I have communicated with you in the past about this issue and now it is in the papers this week. To my knowledge there have been no hearings or public input on this - something I said I certainly hoped you would schedule before making a decision. The public has not been communicated with in any way since almost a year ago when we first got wind of this. That you appear to be siding with the single voice on your advisory committee in favor of a second incinerator - that of Waste Management, seems to suggest you are in the pockets of WM. I hope you can assure me otherwise. I also need assurance that you have determined this will not have a detrimental effect on the present incinerator, either by closing it, leaving the taxpayers with an unpaid bill for a closed facility, or having Skagit co. become a dumping place for trash from all over the NW because there isn't a trash flow adequate for 2 facilities. This seems like a really bad choice on your part, absent some open public discussion that lets democracy have a voice here, and provides additional information. I cannot believe we would be subject to a lawsuit if we refuse WM a permit to build a competing facility - who runs our county - you or WM? Or is there some reason the tail (WM) is now wagging the dog (the county)? It would be shame if we had another money-wasting lawsuit against the county which an open process could avoid. The commissioners have already had too many of these losing lawsuits and wasted much taxpayer money and goodwill in the process. This does not look good. Please inform me there is more sense to your inclinations than what I read in the papers - my only source of details since I am hearing nothing directly from your office. Bob Anderson

RECORD OF THE PROCEEDINGS
SKAGIT COUNTY BOARD OF COMMISSIONERS
TUESDAY, MARCH 9, 2004

8:30 a.m. – 9:00 a.m.	Work Session - Operations Division Manager/Road District Maintenance Supervisors
***T** 9:00 a.m. – 10:00 a.m.	Public Works Department – Chal Martin, Director 1. Public Hearing – Consideration of Franchise Agreement Renewal for Samish Water District (Formerly Known as Whatcom County Water District) 2. Decision – Regarding Vacation of Unopened County Right-of-Way Along Kelleher Road, #63400 3. Discussion – Proposed 2004 Draft Solid Waste Interlocal Agreement Between the Cities/Towns and Skagit County 4. Miscellaneous
***T** 10:00 a.m. – 11:00 a.m.	Planning & Permit Center – Lou Haff, Interim Director 1. Consideration – Annexation Applications Submitted to the City of Sedro-Woolley: Kendall Gentry and Janicki Machine 2. Approval – Natural Resource Land Easement for Short CaRD PL03-0266 Submitted by G & D Wallace, Inc. 3. Consideration – Coastal Zone Management Grant Application for Skagit County's Shoreline Master Program 4. Consideration – Coastal Zone Management Grant Application for Guemes Island Planning Advisory Committee 5. Miscellaneous
***T** 11:00 a.m. – 12:00 p.m.	Public Hearing – 2004 Comprehensive Solid Waste Management Plan
2:00 p.m. – 2:30 p.m.	Bid Opening – Parking Lot Construction Near the Guemes/Anacortes Ferry Terminal

The Skagit County Board of Commissioners met in regular session on Tuesday, March 9, 2004 with Commissioners Ted W. Anderson and Don Munks present. Commissioner Kenneth A. Dahlstedt's absence was excused as he had to attend a meeting out of the area.

PUBLIC WORKS DEPARTMENT – CHAL MARTIN, DIRECTOR

1. Public Hearing – Consideration of Franchise Agreement Renewal for Samish Water District (Formerly Known as Whatcom County Water District).

Dave Sheridan of the Public Works Department reviewed the proposal to renew the franchise agreement for Samish Water District, previously known as Whatcom County Water District. The two franchise agreements are being combined into a single agreement, which will be effective for 25 years. Mr. Sheridan said Old Highway 99 North Road, Alger Cain Lake Road, Lake Samish Road, and Bow Hill Road will be affected by this agreement.

As no public testimony was forthcoming, Commissioner Munks motioned to close the public hearing. Chairman Anderson seconded the motion and the public hearing was closed.

Commissioner Munks motioned to approve the franchise agreement renewal for Samish Water District for a period of 25 years, which was seconded by Chairman Anderson and was carried. **(Contract No. C20040117)**

planning schedule and project costs will take place between the Planning Department and the Department of Ecology.

Chairman Anderson said he had no trouble supporting the application if the logistics could be worked out as to how the grant would be transferred.

Mr. Haff said he would be happy to meet with representatives of their association and discuss the logistics of the grant itself including to what degree they are capable of doing this work themselves as opposed to the Planning staff being personally involved in the professional development of the work.

5. Miscellaneous.

1) Kirk Johnson, Senior Planner, presented an interim ordinance, which extends the provisions of Interim Ordinance No. O20030026, implementing development regulations in the Anacortes, Burlington, Mount Vernon and Sedro-Woolley Urban Growth Areas. Mr. Johnson reviewed several amendments to the ordinance, including Attachment B, which allows up to 5,000 square feet of new commercial or industrial construction on lots in the Urban Reserve Commercial-Industrial district. "New construction" refers to that which is built after the August 26, 2003 adoption of Interim Ordinance No. O20030026. He also stated that the building permit for the Reisner project was issued yesterday so there has already been some benefit to this extension.

Commissioner Munks motioned to approve an interim ordinance extending and modifying the provisions of Interim Ordinance No. O20030026, as outlined by Mr. Johnson. The motion was seconded by Mr. Anderson and passed unanimously. **(Ordinance No. O20040005)**

2) Mr. Johnson requested agenda time to deliberate the Planning Commission's Recorded Motion on the 2001-02 Comprehensive Plan Amendment proposals.

Commissioner Munks made a motion to review and deliberate on the proposals, as outlined by Mr. Johnson on Tuesday, April 20, 2004 at 11:30 a.m. Chairman Anderson seconded the motion, which carried.

PUBLIC HEARING – 2004 COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN.

Gary Sorensen, Solid Waste Manager, introduced consultant, Rick Hlavka, who proceeded to review the proposed 2004 Comprehensive Solid Waste Management Plan.

Mr. Hlavka stated that the current plan was adopted in 1995, which is outdated. State law requires that plans be maintained in a current and applicable condition. The Solid Waste Advisory Committee (SWAC) has discussed and reviewed the drafts. The preliminary draft is now available for review by cities/towns, the public and others and March 19, 2003 has been established as the deadline for receiving comments.

Mr. Hlavka said the new plan assumes that the County and Cities will continue to work collaboratively in managing solid waste. It recommends continuation and refinements to recycling and education programs. There are additional recommendations for special wastes, especially construction wastes. The most significant change is new language that creates an option to allow more than one transfer station. Additional transfer stations either private or public must abide by System Policy. Mr. Hlavka said this means that the station must contract with the County, there must be a system fee, and there must be compliance with the existing waste export contract.

Chairman Anderson opened the public hearing.

Carol Ehlers, 3998 Wind Crest Lane, Anacortes, said she supports the notice of continuing the practice of keeping the residential dumping site next to the recycling center. She also indicated that when the dumping fee was $12, there seemed to be a lot of garbage piles. By reducing the fee to $5, there has been a

reduction in trash and the current system has solved a number of problems with County Health issues. Ms. Ehlers said she appreciates what has been the past practice and would like to see it continued.

Norm Wietting, 13227 SE 54th Place, Bellevue, representing Cimarron Transfer & Recycling Company, reviewed several issues that he felt needed to be brought before the Board as follows:

- While this draft of Chapter 7 allows for private transfer stations and composting facilities, it imposes a set of onerous conditions that would be placed on any public or private facility that was proposed to handle municipal solid waste in the County.
- In the past, Public Works and SWAC have generally opposed another facility because they believe the system can't afford more. They have presented that information to this Board and the SWAC. We have presented information to the Transfer Station Operations Committee and City Councils that shows that this is not true.

  The staff maintains that they cannot operate their facility without subsidies; however, we have presented options and spreadsheets that show how the County can operate their facility at reduced tonnages and compete in a real system. Public Works staff has refused to review the information or make meaningful comments. Recently the staff sent an analysis to Anacortes that showed a private facility would result in a $100 per ton tip fee in 2014 at the County transfer station. This is clearly erroneous and shows that the staff is merely using this issue to resist having another facility.
- Section 7.3.4 contains a lengthy discussion of SWAC recommendations that were not accepted by the Board, are not included in this plan, and are not appropriate in this section. They should be deleted.
- The language in Chapter 7 does not meet the "Purpose" which is stated in the chapter nor the direction given by the Commissioners. The primary purpose is to allow a competitive environment. This version merely tries to shift the cost of all of the current County transfer station inefficiencies to a private facility.

  The proposed policy in Section 7 goes beyond support for the true Countywide "System" programs and recommends that a private facility also pay for "fixed costs" at the County transfer station. While the "fixed costs" are not defined, it is likely that this policy would be used to subsidize the County facility at the cost to all other proposals – whether the subsidized facility is operating efficiently or not. **Please delete the 5th bullet in Section 7.2.3G(7)**

- One of the policies in Chapter 7 is to insure the development of environmentally sound solid waste handling and disposal. This version of the SWMP doesn't do that.

  CTRC has proposed to develop a composting facility that will achieve a 50-60% waste reduction through composting and the sorting of recyclable materials.

  The County has chosen to exempt source separated recycling materials from any of the County fees. As currently written, Chapter 7 would require their facility to pay fees on the recycled materials.

  The SEMP should have a consistent policy on fees for recycled materials.

  What difference does it make whether the material is source separated or not, as long as it gets recycled in an environmentally sound manner.
- Section 7.2.3H states that the System (the County) and private owners/operators shall make **every** reasonable effort to arrange for employment of displaced employees. The word "**every**" should be deleted.
- Section 7.2.3I states that the gatehouse of a private facility should be run by the County or will be otherwise monitored to the satisfaction of the System. This section should state simply that the gatehouse operations shall be monitored as provided in the contract.

- Section 7.2.4 also includes a discussion of the Transfer Station Alternatives Analysis completed in February 2002. While this report was handed out at a SWAC meeting, it has never been reviewed or discussed.

  The most significant problem with this report is that when the cost of operating the facility decreased with the implementation of an alternative, this decrease was never acknowledged. This assumption significantly skews the financial model that was presented and upon which the recommendations were made. Any reference to this report should include a discussion of the limitations.
- Chapter 7 has a discussion of the County's remote transfer station sites at Sauk and Clear Lake. The SEMP should include a recommendation that the current operations and the subsidies need to be studied. In 2003, the users of Clear Lake paid approximately $85 per ton while the users of the Sauk facility paid over $150 per ton. The Clear Lake users received a subsidy of well over 100%.
- The SWMP also makes no recommendations on the funding for the Household hazardous waste program. This program's only goal is to reduce the amount of hazardous waste going to the RDC landfill. As the County has very good protection from liabilities from that landfill, the program only serves to reduce RDC's liability. The County should consider requesting a contribution from RDC to help fund the program.

There being no further public testimony forthcoming, Commissioner Munks motioned to close the public hearing. The motion was seconded by Chairman Anderson and carried. The public hearing was closed.

MISCELLANEOUS.

1. Vouchers audited and certified by the auditing officer as required by R.C.W. 42.24.080, and those expense reimbursement claims certified as required by R.C.W. 42.24.090, have been recorded on a listing, which has been made available to the Board.

   As of this date, March 9, 2004, the Board by majority vote, did approve for payment those vouchers included in the above-mentioned list and further described as follows:

   Payroll warrants numbered 141513 through 142277 in the total dollar amount of $888,770.09 (Transmittal No. P-09-04); and

   Payroll warrants numbered 962154 through 962285 in the total dollar amount of $150,312.89 (Transmittal No. P-10-04).

BID OPENING – PARKING LOT CONSTRUCTION NEAR THE GUEMES/ANACORTES FERRY TERMINAL.

Public Works employees, Ann Marie Gutwein and Linda Eaton opened the following bids for the construction of a parking lot near the Guemes/Anacortes Ferry Terminal:

Dennis Craig Construction, Inc.
P. O. Box 595
Redmond, WA 98073-0595
Bid Bond Enclosed
Addendum No. 1 Acknowledged
Total Bid: $722,736.49

Cimarron Transfer & Recycling Co.

13227 SE 54th Place
Bellevue, WA 98006
Tel: (425) 644-8576
Fax: (425) 747-8630

March 8, 2004

Commissioner Ted Anderson, Chairman
Skagit County Board of Commissioners
Skagit County Administration Building
700 S. Second Street
Mt. Vernon, WA 98273

Dear Commissioner:

The Skagit County Board of Commissioners is currently reviewing the Update to the Solid Waste Management Plan. The issue of additional transfer stations has delayed the plan for an extended period of time. While I believe the current draft of the Plan adequately deals with most topics, there are a few issues that need your attention.

1 While this draft of Chapter 7 allows for private transfer stations and composting facilities, it imposes a set of onerous conditions that would be placed on any public or private facility that was proposed to handle municipal solid waste in the County.

2 In the past, Public Works and SWAC have generally opposed another facility because they believe the system can't afford more. They have presented that information to this Board and the SWAC. I have presented information to the Transfer Station Operations Committee and City Councils that shows that this is **not true**.

The staff maintains that they cannot operate their facility without subsidies; however, I have presented options and spreadsheets that show how the County can operate their facility at reduced tonnages and compete in a real system. Public Works staff has refused to review the information or make meaningful comments. Recently the staff sent an analysis to Anacortes that showed a private facility would result in a $100 per ton tip fee in 2014 at the County transfer station. This is clearly erroneous and shows that the staff is merely using this issue to resist having another facility.

3 Section 7.3.4 contains a lengthy discussion of SWAC recommendations that were not accepted by the Board, are not included in this plan and are not appropriate in this section. They should be deleted.

4 The language in Chapter 7 does not meet the "Purpose" which is stated in the chapter nor the direction given by the Commissioners. The primary purpose is to **allow a competitive environment**. This version merely tries to shift the cost of all of the current County transfer station inefficiencies to a private facility.

The proposed policy in Section 7 goes beyond support for the true Countywide "System" programs and recommends that a private facility also pay for "fixed costs" at the County transfer station. While the "fixed costs" are not defined, it is likely that this policy would be used to subsidize the County facility at the cost to all other proposals - whether the subsidized facility is operating efficiently or not.

Please delete the 5th bullet in Section 7.2.3 G (7)

5 One of the policies in Chapter 7 is to insure the development of environmentally sound solid waste handling and disposal. This version of the SWMP doesn't do that.

CTRC has proposed to develop a composting facility that will achieve a 50-60% waste reduction through composting and the sorting of recyclable materials.

The County has chosen to exempt source separated recycling materials from any of the County fees. As currently written, Chapter 7 would require our facility pay fees on the recycled materials.

The SWMP should have a consistent policy on fees on recycled materials.

What difference does it make whether the material is source separated or not, as long as it gets recycled in an environmentally sound manner?

6 Section 7.2.3 H states that the System (the County) and private owners/operators shall make *every* reasonable effort to arrange for employment of displaced employees. The word every should be deleted.

7 Section 7.2.3 I states that the gatehouse of a private facility should be run by the County or will be otherwise monitored to the satisfaction of the System. This section should state simply that the gatehouse operations shall be monitored as provided in the contract.

8 Section 7.3.4 also includes a discussion of the Transfer Station Alternatives Analysis completed in February 2002. While this report was handed out at a SWAC meeting, it has never been reviewed or discussed.

The most significant problem with this report is that when the cost of operating the facility decreased with the implementation of an alternative, this decrease was never acknowledged. This assumption significantly skews the financial model that was presented and upon which the recommendations were made. Any reference to this report should include a discussion of the limitations.

9 Chapter 7 has a discussion of the County's remote transfer station sites at Sauk and Clear Lake. The SWMP should include a recommendation that the current operations and the subsidies need to be studied. In 2003, the users of Clear Lake paid

approximately $85 per ton while the users of the Sauk facility paid over $150 per ton. The Clear Lake users received a subsidy of well over 100%.

10 The SWMP also makes no recommendations on the funding for the Household hazardous waste program. This programs only goal is to reduce the amount of hazardous waste going to the RDC landfill. As the County has very good protection from liabilities from that landfill, the program only serves to reduce RDC's liability. The County should consider requesting a contribution from RDC to help fund the program.

Thank you for your consideration.

Sincerely,

Norm Wietting
Cimarron Transfer and Recycling Co.

Cc: Commissioner Don Munks
Commissioners Ken Dahlstedt

NORTH PUGET SOUND ASSOCIATION OF REALTORS
525 East College Way, Suite J Mount Vernon, WA 98273
Phone (360) 416-4902 Fax (360) 416-3208 e-mail info@npsar.com www.npsar.com

To: Skagit County Board of Commissioners
From: North Puget Sound Association of Realtors
Date: Wednesday, March 17, 2004
Subject: Formal Written Comment for the record regarding Skagit County Solid Waste Management Plan, Preliminary Draft.

As part of the North Puget Sound Association of Realtors Government Affairs Program, we conducted a review of the Skagit County Solid Waste Management Plan, Preliminary Draft. The draft plan was reviewed against the general areas of concern identified in the Quality of Life Policy Guides and White Papers. We found no significant inconsistencies with our basic REALTOR® policy direction. However, several minor issues were raised that may be of concern to the general community and we have included those thoughts in our comments.

The draft plan updates the current adopted 1994 Plan and is intended to fulfill the requirements of state law (RCW 70.95.080) to prepare a "coordinated and comprehensive solid waste management plan." The document includes an analysis of current and future (through 2020) conditions and needs for recycling, composting, waste collection, transfer and disposal, and special wastes. The draft also addresses the regulatory framework and administration of solid waste management. We would commend the Skagit County Staff for this work and encourage our elected representatives to recognize the efforts which have taken place to date on the revised version of the Solid Waste Plan.

The basic elements of a solid waste management system are: 1) a system for collection; 2) transfer facilities; and 3) a system for disposal. Recycling of manufactured, plant and food waste materials are also potential components. The collection system requirements differ from those of other utility systems such as water, sanitary sewer and storm water in that the infrastructure does not need to be in place prior to or coincident with development. Collection typically occurs under contracts with private contractors. Transfer facilities are centralized and must be planned for future capacity needs. According to the document, the County has sufficient capacity through the 2020 planning horizon. Capacity is based on residential growth projected by the Washington State Office of Financial Management (OFM) and used as the growth forecast in the County's Comprehensive Plan. The OFM projects a 40 percent increase in Skagit County's population from 107,900 in 2002 to 150,500 in 2020. Existing per capita volumes of generated waste are assumed to continue through the 2020 planning horizon. This appears to be a conservative assumption in that recycling goals, if met, would reduce per capita waste quantities.

The County's disposal system currently exports the waste to a landfill in Roosevelt County instead of using in-county landfills or incinerator facilities. The County's current contract with the private waste exporter runs through 2013, with options for 5-year extensions. The County currently has no operating solid waste landfills, although there are several closed landfills that must be monitored and maintained. No new in-county landfills are anticipated to be needed.

Cc: PW

Although no new disposal facilities are planned, the document includes a recommended process and criteria for siting disposal facilities. County code defines disposal sites more broadly than just landfills, and may include processing facilities and transfer stations. Therefore, the recommended process should be evaluated to ensure that the process and criteria are consistent with the all long range countywide goals. The process, outlined on Page 2-12, includes "fatal flaw" criteria under Step 2, Broad Site Screening. These criteria include "unsuitable neighboring land use." We recommend that this criterion be expanded to include current and planned future land use, so that facilities cannot be established where inconsistent with the County's future development plans.

Under the regulatory environment, only two topics are addressed in the draft plan, deterrence of illegal dumping and mandatory collection requirements. The former appears to be consistent with the other countywide goals of creating livable communities. The document recommends that penalties for illegal dumping should be increased and that violators should be required to spend time on a litter crew. Mandatory collection may be of greater interest to the citizens living within the UGA area that would be affected. Mandatory collection is currently limited to incorporated areas. Voluntary subscription service occurs throughout the unincorporated portions of the County. Recommendation R2 on Page 4-9 states that "Urban service areas for solid waste services should be based on the Urban Growth Areas (UGAs) identified by the County's Comprehensive Plan..." However, this appears to relate to recycling services rather than mandatory collection. While mandatory collection is discussed several times (Pp. 6-6, 8-9), the document makes no recommendation on the subject. It is our experience that mandatory waste collection is among the issues that fosters opposition to annexation movements. If the county wishes to encourage annexation of urban growth areas (UGAs), you may wish to push for a recommendation to make garbage collection mandatory throughout UGAs. However, the document also suggests that mandatory collection would require the formation of local solid waste collection districts. This may be contrary to the existing county planning priority recommendation to consolidate special service districts, particularly water and sewer districts, into city systems.

Apart from issues of facility siting and the potential effect on annexations, there are no apparent implications for housing or non-residential development.

The only other issue we noted is more editorial. In Table 6-1 and the notes on Page 6-2, city and county areas and population densities are given in acres although the figures are for square miles.

The North Puget Sound Association of Realtors is working hard to be a firm partner with our local governments as we together work for SOLUTIONS throughout Skagit County. We are grateful for the opportunity to share our views on this document and will continue to offer insightful resources to our elected officials as they work to represent all of their constituents.

Respectfully,

Ron Wortham

Ron Wortham,
President

City of Mount Vernon

Mayor

320 Broadway
Post Office Box 809
Mount Vernon, WA 98273

Phone (360) 336-6211
FAX (360) 336-0623
E-Mail mvmayor@ci.mount-vernon.wa.us
www.ci.mount-vernon.wa.us

March 18, 2004

Mr. Chal Martin
Skagit County Public Works Director
1800 Continental Place
Mount Vernon, WA 98273-5625

RE: Mount Vernon City Council Comments regarding the Skagit County Draft Solid Waste Management Plan

Dear Mr. Martin:

The Mount Vernon City Council would like to thank you for the opportunity to review and comment on the updated Skagit County Draft Solid Waste Management Plan. We appreciate the dependable solid waste disposal system the County has developed and your willingness to cooperate with the municipal partners.

For the most part we agree with the plan as presented. However, one item of concern that we would like to see changed would be the allowance for an additional transfer facility. On page E-6 of the executive summary, recommendation T1) under **In-County Transfer**, and on page 7-11 of Chapter 7: **TRANSFER AND DISPOSAL SYSTEM,** language is included that would allow for additional transfer facilities.

Our position is that additional facilities at this time would be detrimental to the balanced, competitively priced system the County currently offers. With a system debt load of over $7,000,000 and only 94,000 tons produced countywide, we feel the need for additional facilities is premature. We feel that a system plan that designates one facility until the system debt is retired, and the system tonnage increases enough to support two facilities, would be more advantageous for all participants. Since the Solid Waste Management Plan is reviewed every five years, we feel that the subject of additional facilities should be assessed at the next update and not included now.

Once again, we thank you for the opportunity to review and comment on this document.

Sincerely,

Bud Norris
Mayor, City of Mount Vernon

March 19, 2004

Chal A. Martin, P.E.
Director/County Engineer
1800 Continental Place
Mount Vernon, WA 98273-5625

RE: Skagit County Solid Waste Advisory Committees Comments on the Preliminary Draft Solid Waste Management Plan

Mr. Martin:

As you know the Solid Waste Advisory Committee has concluded their update of the Draft Solid Waste Management Plan. We appreciate the opportunity to comment on this important document and thank you for your support and patience.

The update process has taken far longer that any of us had expected. The delays that were created to address legal reviews of the long haul contract with Rebanco, and flow control as it applies to the disposal system in Skagit County, although time consuming, the findings have been beneficial to the development of our recommendation to the Board of Commissioners.

The committee has used careful consideration in the update process and we endorse all the changes and updates in the plan with the exception of one significant item. Language in Chapter 7: that would allow for multiple transfer facilities. Our position continues to be that such action would likely result in a significant, unnecessary disruption of the current stable solid waste disposal system that we all count on, and should not be included at this time.

I have included the March 8, 2002 Solid Waste Advisory Committees recommendation to the Board of Commissioners. Although this recommendation is two years old the committee feels it continues to describe their concerns, particularly with the language in Chapter 7, which would allow for multiple transfer facilities.

On behalf of the Solid Waste Advisory Committee please consider the recommendation dated March 8, 2002 included with this letter as our official comments to the Draft Solid Waste Management Plan.

Sincerely,

Scott Sutherland
Skagit County Solid Waste Advisory Committee

March 8, 2002

Skagit County Board of Commissioners
Administration Building, Room 202
700 South Second Street
Mount Vernon, Washington 98273

Dear Commissioners:

The Solid Waste Advisory Committee (SWAC) is established per RCW 70.95.165 to assist in the development of programs and policies concerning solid waste handling disposal and to review and comment upon proposed rules, policies, or ordinances prior to their adoption. This includes the preparation, update, or major amendment of a comprehensive solid waste management plan.

SWAC has played a critical role in the current development of the solid waste management plan update. During this process, particularly since about last summer, the Commissioners indicated their desire to allow for Waste Management to build their own transfer station, or at least allow for more than one transfer station in the County to compete for the waste. The current draft of the updated plan contains language that would allow for more than one transfer station in the County.

However, from discussions at SWAC meetings and separate discussions conducted between the SWAC city representatives, many concerns have been developed regarding the possibility of allowing for Waste Management (or any other hauler) to build a transfer station. Our conclusion is that such action would likely result in a significant, unnecessary disruption of the current solid waste system that is allowed by law and would also likely result in a lawsuit from the current contracted hauler. SWAC feels this is undesirable at this time, particularly since the County has operated in an efficient and competitive manner.

At our most recent SWAC meeting the city representatives prompted a discussion of possible options in an effort to develop a recommendation to the Board of County Commissioners as to the most preferred course for handling solid waste in Skagit County. This discussion was in response to a request from the Mayors at the January municipalities meeting for a recommendation from the SWAC.

Three options were discussed and developed at the February SWAC meeting:

<u>Option 1.</u>

- Adopt an updated solid waste management plan that would allow for more than one transfer station in Skagit County.

Option 2.

- Do not adopt the updated solid waste management plan that would allow for more than one transfer station in Skagit County at this time.
- Honor the existing long haul contract that runs through 2013.
- Upgrade language and extend the inter-local cooperative agreements between the County and Cities out to 2013.
- Conduct an efficiency audit of current transfer station operations and based on the results of the audit, make cost effective upgrades to the transfer station that do not exceed $500,000 in total costs.
- Skagit County continues to operate the facility out to 2013.

Option 2.a.

- Do not adopt the updated solid waste management plan that would allow for more that one transfer station in Skagit County at this time.
- Honor the existing long haul contract through 2013.
- Upgrade language and extend the inter-local cooperative agreements between the County and Cities out to 2013.
- Conduct an efficiency audit of current transfer station operations and based on the results of the audit, make cost effective upgrades to the transfer station that do not exceed $500,000 in total costs.
- **Skagit County does not operate the facility.**
- Skagit County puts forth a request for proposals for operations only. Any contract resulting from the RFP would terminate at 2013 to coincide with the long haul contract and the new inter-local cooperative agreements.

Following discussion the SWAC voted 9 to 1 in favor of **Option 2** with Waste Management dissenting.

Therefore, please consider the following recommendations to the Board of County Commissioners from the Solid Waste Advisory Committee as the recommended course for handling solid waste in Skagit County.

- **Do not modify the solid waste comp plan to allow for more than one transfer station.**
- **Honor the existing long haul contract with R.D.C. per the County's chief civil deputies review of the contract (Reference Page 30, Skagit County Resource Recovery Facility Alternatives Assessment Report dated April 7, 1995.**
- **Upgrade language and extend the inter-local cooperative agreements between the County and Cities to 2013.**
- **County to hire an independent consultant to perform an efficiency audit of current transfer station operations and based on the results of the audit, make cost effective upgrades to the transfer station that do not exceed $500,000. A major goal of the efficiency audit will be to pursue a possible reduction in tipping fees while maintaining needed service levels.**

- **Skagit County continues to operate the facility to 2013.**
- **The County will establish a Transfer Station Operating Committee represented by a staff member from each municipality including the County. The committee will provide operational oversight and customer-based input to County transfer station operations. The Committee will also serve as an advisory resource to the County in matters of service levels, rates, short and long term planning, capital improvements, and other matters affecting solid waste and recycling issues in Skagit County.**

Also included are the minutes from the last SWAC meeting and the discussion points that the SWAC used to make their decision.

We appreciate the opportunity for SWAC to comment, and look forward to assisting the BCC with the many solid waste issues that need careful consideration. SWAC would appreciate a response from the BBC after the next municipalities meeting as to how SWAC should proceed, as we continue with updating the solid waste management plan.

Sincerely,

Scott Sutherland, Chairman
Skagit County Solid Waste Advisory Committee

cc: Sharron Dillion, Mayor, City of Sedro Woolley
Skye Richendrfer, Mayor, City of Mount Vernon
Dean Maxwell, Mayor, City of Anacortes
Gus Tjeersma, Mayor, City of Burlington
Chal Martin, Director of Public Works
Gary Sorensen, Solid Waste Division Manager
SWAC Members

February 27, 2002

SOLID WASTE ADVISORY COMMITTEE DISCUSSION OF OPTIONS

Of the three options discussed, OPTION 2 was preferred. The following is a breakdown of the discussion:

OPTION 2.

Do not adopt the updated solid waste management plan that would allow for more than one transfer station in Skagit County at this time. The SWAC feels that with only 86,000 tons of waste being generated Countywide, there is not enough waste produced for two transfer stations two survive without out waste being brought in from out of County. Also, currently one (12) hour shift handles all the waste with relatively few problems. The facility is less that 20 years old and SWAC feels with cost effective upgrades and regular maintenance the transfer station should still have several more years of useful life left in it.

Honor the existing long haul contract through 2013. Per Skagit County's chief civil deputy's review of the contract with RDC, which states in part, "the contract is binding upon Skagit County and any successors or assignees" (Reference page 30 of the Skagit County Resource Recovery Facility Alternatives Assessment Report dated April 7, 1995.) SWAC feels that RDC would most likely take legal action if any of the "contracted" tonnage were diverted from their landfill.

Upgrade the language and extend the inter-local cooperative agreements between the County and the Cities out to 2013. The current inter-local expires in 2006. SWAC recommends that by upgrading the language to reflect the changes in the facility, (incinerator to a transfer station) and extending the inter-local out to 2013 to run concurrent with the long haul contract, we should continue to see stability in solid waste rates by pooling all our tonnages through one facility.

Conduct an efficiency audit of current transfer station operations and based on the results of the audit, make cost effective upgrades to the transfer station that do not exceed $500.000 in total costs. The County transfer station capital improvement fund has in excess of $3.000.000 in reserve. SWAC feels that there are sufficient funds available to make common sense upgrades to the facility that would extend its life out to 2013 without raising the tip fee or obtaining any outside financing. SWAC has heard many different cost proposals for upgrades and improvements from County staff and Waste Management consultants, ranging from $250.000 up to $2.000.000. SWAC recommends that an independent consultant be used to perform the efficiency audit, this should provide SWAC with the best un-bias report.

The goal of the audit would be to pursue a possible reduction in tipping fees while maintaining needed service levels.

Skagit County continues to operate the facility out to 2013. SWAC recommends the County establish a Transfer Station Operating Committee. The committee will provide operational oversight and consumer-based input to County transfer station operations. The Committee will also serve as an advisory resource to the County in matters of service levels, rates, short and long term planning etc. The committee would be a sub-committee of SWAC, comprised of a staff member from each municipality, RDC, Waste Management, and the County.

CITY OF ANACORTES 1891

PUBLIC WORKS OPERATIONS
2201 "A" 37TH STREET, ANACORTES, WA 98221
E-MAIL: operations@cityofanacortes.org
PH (360) 293-1921 FAX (360) 293-1931

FAX TRANSMITTAL

This message is being transmitted for the City of Anacortes Public Works Operations Division. If this message is incomplete or illegible, please call the Operations Division at (360) 293-1921.

TO: Gary Sorensen DATE: 3-22-04

FAX #: 360-336-9479

FROM: Marc Krueger

Number of pages, including cover sheet: _____

Message:

Terry's comments SWMP

2201 "A" 37th Street, Anacortes, WA 98221
(360) 293-1921 Fax (360) 293-1931

Comments on Draft SWMP dtd January 2004

Page E-3. Recycling, other than materials which are brought to the county's transfer station, is handled via contracts with private haulers. Why is a county-employed Recycling Coordinator necessary? What would job responsibilities entail? Would it be a cost-effective position? Recommend a much more detailed job description for this position be included in the SWMP since its costs will likely be borne by tip fees paid for disposal of normal waste.

Page E-3, Chapter 6: Waste Collection. These criteria are and should remain the sole responsibility of each city or entity providing or contracting for solid waste collection to determine based on the expressed needs and desires of their constituents. The county has the same responsibility for its constituents in the non-incorporated areas of Skagit County. Accordingly, WC1, WC2, and WC3 should be stricken from the SWMP.

Page E-6. Waste Import and Export: As far as I know, the holder of the current long-haul contract is not guaranteed any right to haul anything.....not even a minimal amount. If this is true, why should a private facility be subject to a restriction which the county is not subject to?

Page 5-5. Section 5.4 Solid Waste Composting Options. The final sentence of this section reads, "A complete cost analysis has not been conducted for this option, but the cost for solid waste composting would be very substantial". If a cost analysis has not been performed, how was the conclusion reached? If the cost is prohibitive, why would private industry put their capital at risk for something doomed from the outset? Recommend strike the quoted sentence as being unsubstantiated and speculative.

Page 6-2. Table 6-1. This table lists recycling charges in Anacortes as $2.25. This is incorrect. Anacortes charges $3.00 for single-family residential service and $2.50 for multi-family. Recommend correct this table.

Page 7-4. G. System/Operator Contract. In general, this entire section seems a bit overreaching and I question its legality but I leave it primarily to any private enterprise seeking to establish a transfer station to make the primary objection. Specifically, I believe it is improper to attempt to bind someone to pay a portion of debt service for "future facilities" as is called for in subpara 7) on page 7-5, particularly when those "future facilities" and their associated costs cannot reasonably be known in all cases when a contract is executed. The same is true of the term "future programs" as listed in the second bullet of subpara 7). Neither should the City agrees to these provisions. The fifth bullet in subpara 7) also appears dangerous and overreaching for both private enterprise and for cities and its legality is questioned as well. Finally, "other fees and costs" must be stricken as it is meaningless and is viewed as a catchall for the County to use whenever it sees fit.

Page 7-6. I Contract Compliance. This provision appears to require the County operate the scalehouse at a private facility. If so, this appears questionable given the allegations of embezzlement at the County's scalehouse and of the theft of valuable metals from the waste stream at the county's transfer station.

Page 7-10. The discussion regarding development of 3 options as allegedly requested by various mayors and solid waste program managers fails to note that neither mayors nor managers have voting privileges to decide policy issues and it fails to mention that the matter was never placed in front of city councils....which do. In fact, the need to include the history is questionable since the BCC has determined that option 1 is what they want. Later in this discussion, the best option for solving the problem of deteriorating equipment while increasing efficiency was ignored in favor of spending large amounts of money to replace very inefficient equipment (the overhead crane) with exactly the same thing or of doing a major redesign and build of the existing facility....which in the view of many, still would not result in a very efficient operation compared to a transfer station designed and built to be a transfer station and not an incinerator.

Much of the discussion on the second half of page 7-10 beginning with "In March 2001...." is unnecessary and reflective of SWAC's disagreement with essentially being ordered by the BOCC to select option 1 and recommend allowing more than one transfer station.....as we then done in section 7.3.5.

Page 7-11. Rather than engage in incomplete and inaccurate rewriting of history beginning in the last two lines of this page, why not be truthful and disclose that the incinerator ash, while classified as hazardous material, required very little special handling and could be easily hauled and disposed of in landfills in a landfill cell designated for that type of material. The ash was hardly more toxic than street sweepings if even that toxic. The "problems in the economics and operation of the incinerator" amounted to improper operation in that employees allowed or did not remove items such as engine blocks from the waste stream. These items and other similar items, resulted in significant damage to the incinerator mechanics and hydraulics. Further, there has never been any documentation that the combustion byproducts of the incinerator ever exceeded the threshold levels for concern and the plant was monitored frequently, if not continually, by NWAPA.

Further, in the first para on page 7-12, why not state the true reasons for the Supplemental Agreement #2 of the long-haul contract?

Page 7-12. Last paragraph. It is unclear how improvements to the transfer station could improve compaction other than by installing a better compactor. Also, it is doubtful that operating expenses could/would be reduced by upgrades since the majority of costs are either for personnel salary and benefits or the long-haul/final disposal costs. At $46/ton, long-hauling and final disposal cost is over 50% of the total tipping fee and cannot be reduced except through contract negotiations, better compaction, or alternate disposal processes.

Page 7-13. Section 7.4.4. Skagit County doesn't even want to think about importing waste from other counties or British Columbia and this plan should say exactly that. Private enterprise, however, might benefit from such importation and Skagit county could reap some fallout revenue from that.

As for comments in "Waste Export Alternatives", it is not a true statement to say, "any facility that will export significant quantities of waste will be equipped with a pre-load compactor." The RDS privately owned transfer station in Ferndale does not use a compactor when loading the same type of containers RDC ships compacted Skagit County waste in....and achieves about the same tonnage per container....or better tonnage. Their success is indicative of why a transfer station designed from the ground up to be a transfer station operates more efficiently, more cost-effectively, and achieves better results. And this is indicative of why Skagit County should get out of the garbage business.

Section 7.4.5. The statement "Any facility within the System shall honor the current waste export contract." is questionable and attempts to enforce it would likely result in litigation against the County. This should have been thoroughly researched by SWAC prior to placing it in this document.

Pages 7-14, 7-15. All information in Sections 7.5.2 through 7.5.5, inclusive, should be stricken as it is no longer the least bit applicable.

Page 8-5. Table 8.2 is misleading and incorrect. The figures in the "total Remaining Debt" line appears to exclude the interest portion of the debt and show only the remaining principal balance. If you add the annual payments in each column, you get $3,711,545 under Incinerator, $7,773,255 under Landfill Closure, and $11,484,820 under Total. This only represents a difference of $2,799,820....but who's counting?

Page 8-9. Skagit County does not have and should not consider forming a solid waste disposal district(s). There is too much bureaucracy already and too many splinter entities with taxing authority. A solid waste ***collection district*** is a different matter and should be considered. All cities essentially have *a collection* district and can thereby legitimately charge for solid waste collection services at each residence and business....whether or not the customer chooses to dispose of refuse through that collection service.

Page 8-10. Section 8.2.4 recommends the County staff increase by one FTE to provide a "Recycling Coordinator" position. Since all recycling other than materials brought to the County's transfer station is handled by private contractors, the need for this position is unclear at best and probably not cost effective. At any rate, if such a position is recommended, this plan should make a much more detailed case for it.

General comments:

1. Since this SWMP will, in great part, dictate how the county will be involved in solid waste for the foreseeable future, and since its final version is unknown at this time, any consideration of extension of the 1986 Interlocal Agreement should wait until the SWMP has been finalized, adopted by the County, and ratified by the City of Anacortes.

3302 K Ave
Anacortes WA 98221

CITY OF SEDRO-WOOLLEY
Sedro-Woolley Municipal Building
720 Murdock Street
Sedro-Woolley, WA 98284
Phone (360) 855-1661
Fax (360) 855-0707

Sharon Dillon
Mayor

3/05

March 18, 2004

Chal Martin
Skagit County Public Works Director
1800 Continental Place
Mount Vernon, WA 98273-5625

RE: City of Sedro-Woolley Solid Waste Department Comments to the Skagit County Draft Solid Waste Management Plan

Dear Mr. Martin:

The City of Sedro-Woolley / Solid Waste Department would like to thank you for the opportunity to review and comment on the updated draft solid waste management plan. We appreciate the stable solid waste disposal system the county has developed and your willingness to cooperate with your municipal partners.

Our review has identified one significant change in the plan that would be unacceptable to us at this time. On page E-6 of the executive summary, recommendation T1) under **In-County Transfer**, and on page 7-11 of Chapter 7: **TRANSFER AND DISPOSAL SYSTEM** you have included language that would allow for additional transfer facilities.

Our position is that addition facilities at this time would be detrimental to the stable, competitively priced system the County currently offers. With a system debt load of over $7,000,000.00 and only 94,000 tons produced county wide we feel the need for addition facilities is premature. We would much rather participate in a system plan that designates one facility until the system debt is paid off and the system tonnage increases enough to support two facilities. Since the solid waste management plan is updated every five years, we feel that the subject of additional facilities should be reviewed at the next update but not included in this update.

Once again the City of Sedro-Woolley / Solid Waste Department thank you for this opportunity to review and comment on this very important document.

Sincerely,

Sharon Dillon

GarySorensen

From: DaveAtEHS@aol.com
Sent: Wednesday, March 31, 2004 10:59 AM
To: GarySorensen
Subject: Solid Waste Comp Plan, Recyclables

Gary

As we discussed:

The newly adopted WAC 173-350 SOLID WASTE HANDLING STANDARDS define "Recyclable materials" (WAC 173-350-100) means those solid wastes that are separated for recycling or reuse, including, but not limited to, papers, metals, and glass, that are identified as a recyclable material pursuant to a local comprehensive solid waste plan.

I believe this new definition requires that local comp plans maintain a current listing of materials capable of being recycled. To that end, I request such a listing be identified in the Skagit County Plan and that a method be developed to conveniently update the listing as new recycling opportunities become available.

Since the examples that are given in the definition (paper, metals) are category type identifiers in that all types of paper and metals would be included, I believe that individual type substances do not need to be identified as recyclable in the comp plan. Rather, additional categories should be identified such as; Construction waste, Demolition waste, Land clearing debris, Wood waste, Plastics and so on. Clearly, additional interpretation is needed by others.

Thank you for your consideration. I would be happy to provide additional information as needed. Please feel free to e-mail or call.

Sincerely,

David Bader, R.S.
Environmental Health Specialist
Environmental Health Services, LLC
Principal
(360) 739-3703
DaveAtEHS@aol.com

GREEN SOLUTIONS

M E M O R A N D U M

DATE: July 9, 2004

TO: Skagit County SWAC, other interested parties

FROM: Rick Hlavka

RE: Comments Received on Preliminary Draft CSWMP and Proposed Responses

This memo addresses the comments received from the Department of Ecology (Ecology) and the Washington Utilities and Transportation Commission (WUTC) on the Preliminary Draft of the Comprehensive Solid Waste Management Plan (CSWMP). Comments received from others are addressed separately in a letter from Skagit County Public Works.

Comments received from Ecology

Ecology's comments are provided in three parts, with the first two parts being required for plan approval and the third part consisting of non-mandatory suggestions to improve the CSWMP (see Attachment A). This memo combines the first two parts of Ecology's comments into a section considered to be mandatory.

Ecology's comments also notes that they are in the process of updating the state solid waste management plan (the "Beyond Waste" plan), and encourages the use of that plan for future guidance.

Ecology's Mandatory Comments:

1. Ecology's first comment is to note that copies of interlocal agreements must be provided to Ecology.
   Response: Ecology will be sent a copy of the new interlocal agreement.
   Proposed Revisions to CSWMP: It has been anticipated that the final draft of the CSWMP will contain copies of resolutions of adoption from the municipalities (see next comment), but we should also include a copy of the new interlocal agreement in an appendix of the CSWMP.

2. Ecology's second comment notes that Skagit County and cities must approve the CSWMP before Ecology can grant final approval to the plan, and requests a statement to the effect that the process outlined in the interlocal agreements was fulfilled.
   Response: This is a standard part of the process for solid waste plans. After review of the revised plan (revisions that are based on comments received and the discussion of those comments at the August 4th SWAC meeting) by the Planning Commission, municipal adoption of the revised CSWMP is the next step we will be undertaking in Skagit County.
   Proposed Revisions to CSWMP: We have anticipated putting copies of the resolutions of adoption in Appendix A of the final CSWMP, but per Ecology's comment we should also include a statement that the plan approval process outlined in the interlocal agreements was followed.

Phone: (360) 897-9533 e-mail: rickhlavka@aol.com FAX: (360) 897-8923

3. Ecology's third comment requests addition of residential food waste to the list of designated recyclable materials.
   Response: The list of designated materials is considered to the minimum requirements for recycling collections. Although food waste could be considered to be an organic material that only applies for composting facilities, there is still an implication that many facilities should be accepting this material. The recommendations in the CSWMP only speak to home composting of food waste and consideration of any proposals for larger-scale facilities, but are not intended to endorse food waste as a standard recyclable (compostable) material. Adding residential food waste to the list of designated materials seems premature at this stage for Skagit County.
   Proposed Revisions to CSWMP: None.

4. Ecology's next comment notes that a process is presented in the CSWMP for amending the list of designated recyclable materials, but that the timing for a decision to amend the list is vague.
   Response: The CSWMP currently states that a decision to amend (or not) the list of designated recyclable materials should be made "in a timely fashion" (see page 4-6). This language was purposely chosen to allow some flexibility in the future (depending on the circumstances, more or less time may be needed to consider such an amendment). In the most extreme case, it may be necessary to discuss a proposed change with the SWAC and/or Municipalities Committee, and then seek a formal amendment to the CSWMP.
   Proposed Revisions to CSWMP: The language in the CSWMP should be revised to clarify that the SWAC would be involved in the decision to change the list of designated recyclable materials. The new language could explain that, with the SWAC's concurrence and approval, minor changes could be made in the list without formally amending the CSWMP, a process that might take up to 60 days. Major changes (what would constitute a "major" change should be decided by the SWAC) would require an amendment to the CSWMP, which could take up to 120 days.

5. Ecology's next comment notes that state law requires a program to monitor commercial recycling efforts, and the CSWMP does not clearly describe how this will be accomplished.
   Response: This is a difficult issue to address. Commercial recycling in Skagit County (and other areas) is conducted largely by private companies that are not required to report data on their efforts specific to commercial recycling. As noted in WUTC's comments (see their comment #3), there is also a lack of any direct control over commercial recycling activities due to federal preemption.
   Proposed Revisions to CSWMP: We are proposing to note that the Recycling and Waste Reduction Educator (Frances Ambrose) should continue to monitor commercial recycling activities as part of the cooperative arrangements with haulers and cities to promote those activities. A statement to this effect could be added to page 3-7, at the end of Section 3.4.3, and on page 4-2 in the section dealing with existing commercial recycling programs. In this sense, "monitoring" would be described as periodically collecting information on the types of services offered to commercial customers (which would seem to fit in well with the idea that the Educator helps to promote those options).

6. Ecology's next comment has to do with designation of urban and rural areas. This is an important point for program planning and other factors.
   Response: The CSWMP refers to the Skagit County Comprehensive Plan as being the guiding document in establishing urban boundaries. The intent is that any future changes to that document are then automatically incorporated into the CSWMP, but that intent is not clearly stated.
   Proposed Revisions to CSWMP: The discussion about urban-rural designations (see pages 4-7 and 4-8) should be revised to include a clear statement that any future changes in urban growth boundaries adopted through the Comprehensive Plan, and changes in city limits adopted through local annexations, are automatically incorporated into the CSWMP.

7. Ecology's next comment notes that there is a lack of discussion about the adequacy of local markets for yard debris.
   Response: There is a brief mention of yard debris markets on page 5-3, at the end of Section 5.2.4.
   Proposed Revisions to CSWMP: The existing discussion on page 5-3 should be expanded to note the types, quantities, sources, and markets for compost in Skagit County.

Ecology's General Comments:

8. Ecology's first non-mandatory comment is that Skagit County has received several awards that could be mentioned in the CSWMP.
   Response: It would be good to highlight Skagit County programs that have worked well.
   Proposed Revisions to CSWMP: We could add mention of the awards that Skagit County has received, but I would need help from County staff or others to identify and describe these.

9. Ecology's next comment is that other plans, and how those plans might impact the CSWMP, should be discussed.
   Response: Other plans are mentioned, if only briefly, on page 1-2 and also in several places in Chapter 8. Although it is good to bear in mind that other plans and programs will have an impact on solid waste management, it may be difficult to accurately foresee the exact impact of changes in these other plans.
   Proposed Revisions to CSWMP: We should talk about this at the SWAC meeting, but it is my recommendation that we not spend too much time on this issue, since it may be difficult to foresee the actual impact and any future changes will have to be dealt with at that time anyway.

10. Ecology's next comment is that greater clarity would be good for the roles of the cities versus the county in providing waste reduction and recycling programs.
    Response: The roles of the various parties involved in waste reduction and recycling are discussed in several chapters, summarized in Table E-1, and mentioned in the new interlocal agreement. It should be clear from these references that the cities and private sector have the lead in providing recycling services, but a clearer statement on waste reduction could be helpful.
    Proposed Revisions to CSWMP: Recommendation PE1 could be revised to state that the County is the lead agency for public education, assisted by the cities and private sector.

11. Ecology's next comment notes that the process describing plan amendments versus revisions could be clearer.
    Response: The discussion of amendments and revisions to the CSWMP could draw a clearer distinction between the two levels of updating the plan.
    Proposed Revisions to CSWMP: The discussion on pages 1-7 and 1-8 will be revised to clarify the difference between amendments and major revisions to the CSWMP.

12. Ecology's next comment raises a question about fluctuations in annual tonnages that occurred in previous years (see Table 2.3).
    Response: Partial explanations are available for a few of the previous years, but reasons for the fluctuations are largely unknown. In general, disposed tonnages are expected to continue to increase, due to increases in population, and so budget surpluses are more likely than shortages.
    Proposed Revisions to CSWMP: None.

13. Ecology's next comment points out that a table showing the history of tipping fees in the county would be interesting and would demonstrate the commendable job that the county has accomplished in keeping costs stable.
    Response: This type of information could be interesting, and could be shown in either Chapter 2 (by including it in Table 2.3 or showing it in a separate table) or in Chapter 8. Including this information in Table 2.3 might help explain some of the fluctuations from previous years, if the annual differences were caused by transfers in or out of the county.
    Proposed Revisions to CSWMP: If the data is available, tipping fees for previous years should be shown in Table 2.3.

14. Ecology's next comment notes that more recent waste composition data would be helpful for planning programs in Skagit County, and encourages the county to explore partnerships to generate current data.
    Response: Data is presented in the CSWMP from a waste composition study conducted in Skagit County in 1990, and it is generally assumed that significant changes have occurred in the waste stream since that time. On page 2-17, a weak recommendation is made to conduct a new waste composition study should that data have a bearing on any significant investments.
    Proposed Revisions to CSWMP: The recommendation for an updated waste composition study should be firmed up.

15. Ecology's next comment raises a question as to why payments for the landfill closure bond increase in 2007.
    Response: The increase in payments for the one bond were structured to increase when the other bond was paid off, in order to provide a more balanced demand on the solid waste budget and also to pay off the bonds as soon as possible.
    Proposed Revisions to CSWMP: A footnote should be added to Table 8.2 to explain that payments for the landfill closure bond are purposefully increased in 2008.

16. Ecology's next comment suggests that a contingency plan for asbestos would be helpful should private efforts to collect this material cease.
    Response: As noted in the CSWMP, larger generators of asbestos waste (primarily removal companies) have options for proper disposal of asbestos-containing wastes, and it is primarily the smaller generators (small businesses and homeowners) that may have a problem in the future. Potential contingency plans for small quantities of asbestos include handling it through the waste export system or at the Household Hazardous Waste Collection Center.
    Proposed Revisions to CSWMP: It is unclear whether we should go so far as to include the above options as a recommendation in the CSWMP, but a statement could be included in Section 9.4.3 to the effect that both of these alternatives would be considered if a need arose.

17. Ecology's next comment points out that the definition of recycling shown on page 4-1 of the CSWMP does not match the official definition shown in state law.
    Response: The definition of recycling shown in CSWMP is intended as a general explanation, and is not meant to replace the official definition. As noted in Ecology's comments, the official definition can appear complicated for a non-technical audience.
    Proposed Revisions to CSWMP: There appears to be an easy compromise in this case, where the existing language in the CSWMP can be revised to avoid presenting it as an official definition, and the state definition can also be added to that section (4.2.1).

18. Ecology's next comment recommends that it should be noted that dump-and-pick operations are generally not successful.
    Response: The discussion of dump-and-pick operations (page 4-9 of the CSWMP) is intended to be a general guide that would require more work if an actual operation was proposed (the CSWMP states that additional examination of operational issues and feasibility would be needed in that case).
    Proposed Revisions to CSWMP: A fifth "bullet point" could be added to the list of issues shown on pages 4-10 and 4-11, stating "Effectiveness: The ability to recover materials from mixed waste is limited, especially in areas where recyclable materials are already being diverted by source separation programs. Dump-and-pick operations often resort to recovery of only the larger materials (wood, sheetrock and metals) due to the high cost of recovering the smaller materials (bottles and cans) in this way, and also due to the fact that only about one-third of the smaller material are still marketable after being mixed with garbage."

19. Ecology's next comment recommends caution in considering any solid waste composting proposals, due to the problems that have occurred with this technology.
    Response: Previous discussions by the SWAC have resulted in the recommendation (see page 5-6) to consider solid waste composting proposals subject to the normal conditions and constraints that apply to other types of solid waste facilities. This issue should be discussed further at the next SWAC meeting to determine if solid waste composting warrants any special requirements.
    Proposed Revisions to CSWMP: None at this time, pending discussions at the next SWAC meeting.

20. Ecology's next comment addresses agricultural wastes and suggests that cooperative efforts with farm associations could be explored. This comment also mentions biosolids.
    Response: The CSWMP currently points to Ecology and the Conservation District as being the main organizations with involvement in agricultural wastes in Skagit County. If the SWAC or others are aware of farm associations with involvement in agricultural wastes in Skagit County, these could be mentioned as well. Biosolids are already discussed in the CSWMP, seemingly to the extent necessary (since no problems were noted with biosolids).
    Proposed Revisions to CSWMP: None, pending discussions with the SWAC.

21. Ecology's next comment addresses the potential need for large-scale disposal of farm animals due to BSE ("mad cow disease") or avian flu.
    Response: It would be difficult for a solid waste plan to anticipate the nature, extent and appropriate corrective measures for problems such as BSE and avian flu. The CSWMP could make a recommendation to develop plans for these types of problems, or to provide a foundation for an initial response, but it would not be prudent to spend too much time on this issue because the response to any future incidents would be determined by others possibly without any consideration to the recommendations of this CSWMP.
    Proposed Revisions to CSWMP: None.

22. Ecology's next comment supports the system policy and the recommendations referring to it.
    Response: Ecology's support in these types of issues is important and valuable, since system stability and performance are important factors to Ecology and others.
    Proposed Revisions to CSWMP: None.

23. Ecology's final comment notes that it may be desirable to consider a collection or disposal district at some point in the future.
    Response: The CSWMP does not provide much of a conclusion on either type of district, but simply notes that these have been considered without much progress and there is still substantial interest in this type of approach (see page 8-10).
    Proposed Revisions to CSWMP: The discussion of districts could be concluded more clearly by adding a line at the end of Section 8.2.4 such as "This CSWMP does not provide a recommendation for or against districts, in recognition of the fact that it may or may not be desirable to consider districts in the future as conditions warrant."

Comments received from WUTC

The letter from the WUTC begins with a review of points from the CSWMP that are important to the WUTC's analysis, and they conclude that the recommendations in the CSWMP will have an impact on ratepayers in Skagit County. Note that this last point is typical, and probably every solid waste plan in Washington has received the conclusion that there will be some impact on rates.

WUTC's specific comments, and proposed responses, are discussed below.

1. WUTC's first comment is actually a request, which is for Skagit County to provide a recommendation to the WUTC for the desired amount of incentive rate.
   Response: The incentive rate is typically set at $1.00 per household or $1.00 per can of service (i.e., $1.00 per month for one-can service, $2.00 per month for two-can service, etc.). Some would argue that the latter approach rewards people who generate more waste but there are sometimes legitimate reasons for higher waste generation (such as more people in the household).
   Proposed Revisions to CSWMP: Pending discussions with the SWAC, the CSWMP should note that the preferred rate structure is an incentive rate set at $1.00 per can of service (this language should be included in Section 6.2.6, on page 6-7).

2. WUTC's next comment is to note that they require a map showing the recycling service area (RSA) before they can implement the recommendations for this area (see recommendations #R2, #C1 and #WC3).
   Response: A map can be included to illustrate the area.
   Proposed Revisions to CSWMP: A map showing the boundaries of the RSA should be included in Chapter 4 (where the concept of the RSA is first introduced) on page 4-10.

3. WUTC's next comment notes that the county and the WUTC have no jurisdiction over commercial recycling due to federal preemption, and that the WUTC has specific rules for residential recycling services that prevent implementation of recommendation #R4.
   Response: The federal preemption for commercial recycling is a problem that cannot be resolved on a local level. The WUTC's rules on residential recycling specifically speak to rate changes (WAC 480-70-271), which require 30 days notice, and changes in the collection schedule (WAC 480-70-361(4)), which requires a minimum of seven days notice. In both cases, only one form of notice is required and various options are allowed (bill inserts, separate mailings, phone calls, and notices on the back of the billing envelope). No reference was found in WUTC rules that would prevent the county from requiring longer notice periods for the other factors of interest to the CSWMP (such as collection methods, types of materials collected, and setout requirements, see page 4-10). Previous discussions at SWAC meetings have concluded that there the minimum requirements for notifications of changes are inadequate in notifying residential customers, especially for changes to the recycling program. If the SWAC still feels this way, recommendation #R4 could be modified to address only those factors not preempted by WUTC rules.
   Proposed Revisions to CSWMP: Recommendation #R4 should be deleted in its entirety, or modified to remove any mention of commercial recycling and any mention of residential recycling factors that fall under WUTC jurisdiction.

4. WUTC's next comment requests that all references to "franchises" be changed to "certificates."
   Response: The "certificates" that WUTC issues are clearly similar to franchises, but other uses of the term "franchises" do not mesh well with WUTC rules.
   Proposed Revisions to CSWMP: All references to "franchises" should be changed to "certificates" and the first use of the term "certificates should be accompanied by an explanation that it means something like a "franchise."

5. WUTC's final comment notes that data originally missing from the Cost Assessment Questionnaire should be filled in for the final copy of the CSWMP.
   Response: In the draft copy released in February, data was missing for Waste Management and Burlington. The data from Waste Management was received later and can now be shown in the plan. Data for the City of Burlington was removed on the premise that they were no longer conducting their own collections, but WUTC has asked that the data for Year One (2004) be shown in the CSWMP since Burlington was still conducting their own collections for part of this year.
   Proposed Revisions to CSWMP: The final draft of the CSWMP will contain data for Waste Management and Burlington (see page B-5).

This concludes the comments received from Ecology and WUTC on the Preliminary Draft CSWMP.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

To Copy for File
Dave
Gary

May 31, 2004

Mr. Chal Martin, PE
Skagit County Public Works Director
1800 Continental Plance
Mount Vernon, WA 98273

Dear Mr. Martin:

RE: Preliminary Review of the *Draft 2004 Skagit County Comprehensive Solid Waste Management Plan, January 2004*

On February 6, 2004, Ecology received formal submittal of the *Draft 2004 Skagit County Comprehensive Solid Waste Management Plan, January 2004* and a request for preliminary review. Per the statutory requirements of Chapter 70.95, and under the *WDOE 90-11 Guidelines for the Development of Local Solid Waste Management Plans and Plan Revisions (WDOE 90-11 Guidelines)*, I have conducted a preliminary review of the Plan.

I would like to commend the efforts of the County, the SWAC and all other involved parties in getting the Plan to this point. During this planning effort all involved parties have stayed focused on producing a workable, usable document. We are confident this document will guide the County in making the tough decisions it will face in the future in the solid waste arena.

The attached comments are categorized in two ways. The comments under the first two headings must be addressed prior to Plan approval. The comments under the third heading, "General Comments" are not required to be addressed prior to Plan approval. However, Ecology feels that addressing these issues will help clarify the plan. Ecology has focused its comments on substantive issues and has not addressed editing details in this review.

I look forward to working with your staff towards final approval of this plan. If you have any questions please call me at 425-649-7076.

Sincerely,

Peter D. Christiansen
Solid Waste Planner

PDC:nat
Enclosure

Skagit County Draft Comprehensive Solid Waste Management Plan

Review Comments: Peter D. Christiansen
Solid Waste Planner, NWRO
May 31, 2004

Ecology's review comments are provided to assist Skagit County in the development of a comprehensive, approvable, and useful solid waste management plan. The goals of the planning process include reducing the total amount of solid waste produced through waste reduction and recycling, and achieving compliance with state and local environmental regulations.

The task of comprehensive plan development is not an easy assignment considering the multitude of responsibilities confronting the Skagit County Public Works Department. Ecology recognizes the tremendous effort in developing and updating the CSWMP. The Plan presented to Ecology has gone through a thorough review by SWAC, Skagit County Cities, haulers, the public and other interested parties in the County. The Plan has endured a long road to this release, and the thought and effort to get the plan to this point should be appreciated by all parties who have participated in its development. This Plan should provide Skagit County with the tools necessary to run an efficient and effective solid waste handling system in the County over the next decade.

Please note that Ecology is currently in the public review process of our own solid waste management plan, "Beyond Waste". Some of the new initiatives outlined in your plan are initiatives discussed in the Beyond Waste Plan. I would encourage you to review the Beyond Waste Plan for guidance as you implement your plan, and look to Ecology for assistance in the development of your new programs. For example, the Beyond Waste document has identified Green Building as a primary initiative. This initiative should align nicely with the county's recommendation to promote the establishment of a local reusable building materials store.

PROCEDURAL ITEMS THAT MUST BE ADDRESSED PRIOR TO PLAN APPROVAL

Interlocal Agreement: RCW 70.95.080 requires each participating jurisdiction to enter into an interlocal agreement with the county. Copies of all interlocals must be provided to Ecology.

Resolutions of Adoption: Skagit County and the cities with interlocal agreements need to approve the updated comprehensive solid waste management plan prior to Ecology's approval of the final draft. Please include a statement assuring that the plan acceptance process outlined in the interlocal agreement has been fulfilled.

ITEMS THAT MUST BE ADDRESSED PRIOR TO PLAN APPROVAL

Designation of Recyclable Materials - RCW 70.95.010 (7)(c) requires the plan to include a designation of what materials will be collected for recycling. The county has done so on page 4-6 with a list of materials that are commonly collected for recycling in Skagit County. Please consider adding residential food waste to the list since it is recommended elsewhere in the plan that this material be considered for collection.

The list is also supported by a process for proposed changes to be made to the plan. We applaud this forward thinking. While the document states that proposed changes should be made to the County Solid Waste Division and the Health Department, and criteria are outlined for this decision, the timing for a decision is vague.

Commercial Recycling – RCW 70.95.090 (7)(b)(ii) requires programs to monitor the collection of source separated waste at nonresidential sites where there is sufficient density to support a program. It is acknowledged that Skagit County does not appear to have a very aggressive commercial recycling program. The mechanism for monitoring the collection of source separated waste is not clear.

Designation of Urban and Rural Areas - RCW 70.95.092 requires the plan to include clear criteria for the designation of urban and rural areas. This appears to be done through reliance on the Skagit County Comprehensive Plan. A process, however, needs to be established that allows review and adjustment of urban and rural designations as needed. A better defined map would be helpful here as well.

Yard Waste – RCW 70.95.090 (7)(b)(3) requires programs to collect yard waste where there is an adequate market or capacity for composted yard waste. The Plans lacks a discussion on adequate markets.

The WUTC conducted a formal review of the Plan and forwarded their comments to Ecology and to the County in a letter dated March 24, 2004. The WUTC comments, assigned as an attachment to Ecology's comments, must be consolidated into the Plan.

OTHER COMMENTS

The County could take the opportunity of this plan to tout the many successes of Skagit County programs as recognized by others. For example, Ecology has recognized the county for outstanding achievement in several programs.

The plan identifies an overview description of the planning process including identifying the participating jurisdictions, outline the schedule and adoption process, etc. This section should also discuss the potential impact of other plans and their relation to the CSWMP, including GMA, City/County comprehensive land use, etc.

It is somewhat unclear what the roles of the Cities are versus the role of the county in providing waste reduction and recycling programs. Greater clarity could be provided here.

The process outlined for updating the CSWMP is generally well presented in section 1.7, though there appears to be some confusion between a plan amendment and a plan revision. The amendment should be used essentially as a housekeeping tool to keep the plan current. Amendments occur when minor changes in the scope of a program occur, additions to existing programs are made, etc. They should be approved as outlined in the plan and in the interlocal agreement. A plan revision requires the same process as required to adopt a plan. It involves redefining the vision for the CSWMP. This occurs where there is a more significant change in the system such as a major shift in the level of service, regionalization of activities of previously independent planning entities, etc.

Table 2.3 outlines the annual disposal tonnages for Skagit County over the past 20 years. There are some significant fluctuations in the total waste both in tons and percentage measurement. It would be helpful to see some explanation why some years show such fluctuations (high flood year, other?). Although the system relies on out of county waste export and most likely is not greatly impacted by large swings of waste entering the system, there should be concern if revenues to the county fluctuated significantly.

It would also be helpful and I believe in the county's interest to present a historical table of tip fees over the past twenty years. The county has done a commendable job keeping costs consistent over the past years, and this plan could be used to tout that effort and accomplishment.

Waste composition studies are helpful in assist in the design of solid waste handling and disposal programs. There hasn't been a statewide waste composition survey since 1992. We encourage the county to work with neighboring jurisdictions and explore partnerships where relevant data can be obtained.

Table 8.2 demonstrates the debt service payments for the incinerator and landfill closure. In year 2007 the incinerator payment is completed and the landfill closure payment increases significantly. An explanation for the increase would be helpful.

Asbestos waste is currently handled outside the regular solid waste system by private handlers. No recommendations were made for the disposal of asbestos because of this. It would be helpful to consider a contingency plan should the private collection cease.

The definition of recycling on page 4-1 differs from the definition of recycling in Chapter 173-350 WAC, *Solid Waste Handling Standards*. Recycling as defined in the rule "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." This is a construct that will probably prove difficult for the general public to understand, but it is

one we had to make in WAC 173-350 to match the definition developed by the State Legislature in RCW 70.95. The plan should start to move to the direction of the legislative definition.

In the discussion of dump and pick operations, it should be noted that these operations are generally not successful, especially in areas where recycling services are offered. The most successful dump and pick operations I am familiar with are systems where high value materials are identified on certain routes and segregated for high grading.

Solid waste composting is identified as an option in section 5.4.1. There appears to be a trend nationwide of decreasing reliance on this solid waste handling method. The one attempt at solid waste composting in Washington state occurred in Whatcom County at RECOMP and was not successful. We recommend the county proceed cautiously should MSW composting be proposed.

Agricultural waste is increasingly becoming a target for beneficial use. They have also become a problem waste (at least in more urbanized areas). Manures have caused the fouling of waterways, and preventative measures are being undertaken here in King County. Cooperative efforts with farm associations could be explored. Also, although biosolids are now specifically excluded from the definition of solid waste, they have fallen into the solid waste management through the beneficial use provisions of the solid waste WAC 173.308.

Does the county have a plan for the large scale disposal of livestock and other farm animals? With the recent events last year with cattle and BSE, and the current crisis in British Columbia with poultry and Avian Flu, it is worth the effort to do some preplanning on how to handle these wastes should an outbreak occur. Ecology has been working with our Department of Agriculture and Whatcom County on a poultry disposal plan. We would be happy to share our experience and expertise with your staff.

It is critical that system stability be a key component to the consideration of adding any new facilities to the current mix in Skagit County. The recommendation throughout the document that "any proposals for solid waste ___ should be considered, subject to normal permitting requirements and compatibility with the System Policy shown in Section 7.2.3" must be taken seriously to protect the system and the ratepayers. We appreciate and support the clear criteria set forth in Section 7.2.3, *Skagit County System Policy*.

It is understood that a disposal district and/or collection district is not being recommended at this time. I would encourage the County not to table discussions on these tools, as perhaps a better time to present them will occur.

SERVICE DATE

MAR 24 2004

STATE OF WASHINGTON

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

1300 S. Evergreen Park Dr. S.W., P.O. Box 47250 • Olympia, Washington 98504-7250
(360) 664-1160 • TTY (360) 586-8203

RECEIVED

MAR 29 2004

SKAGIT COUNTY
PUBLIC WORKS ADMIN.

March 24, 2004

Mr. Chal Martin, P.E.
Skagit County Public Works Director
1800 Continental Place
Mount Vernon, WA 98273

RE: Skagit County Solid Waste Management Plan TG-040229

Dear Mr. Martin:

The Washington Utilities and Transportation Commission (Commission) has completed its review of the preliminary draft of the Skagit County Comprehensive Solid Waste Management Plan Update January 2004 (Plan).

Staff analysis of the Cost Assessment portion of the Plan shows some impacts to ratepayers in Skagit County. As a result of inflation and the addition of a Recycling Coordinator to County Staff, a one-can weekly customer's monthly bill would increase about $0.16 next year. Commercial customers would see an increase of about $0.18 per yard of solid waste disposed.

The Plan will have significant impact on certain residential customers located within the recycling service area (RSA) described on page 4-9. The Plan proposes two significant service level changes. The first, on page 5-4, is voluntary subscription yard waste services must be available throughout the RSA by December of 2005. The rate impact of this will depend on whether or not the customer signs up for service.

The second service level change, described on page 6-5, is commonly known as mandatory-pay recycling, meaning that all residential garbage customers must pay for recycling service, even if they do not subscribe to recycling service. Using existing

Waste Management of Skagit County voluntary recycling service rates, this will increase the monthly bill of a residential customer living within the RSA by $6.50, if that customer does not currently subscribe to voluntary recycling service. The bill for one-can weekly service, currently costing $13.20 per month, will increase 49% to $19.70 per month. Before the company can implement mandatory-pay recycling, the company must file new recycling rates and implement the commodity credit program (not currently in effect in Skagit County).

In addition to mandatory-pay recycling, the Plan, on page 6-5, also recommends an incentive rate, where the rate for garbage service without subscribing to recycling service is more than the rate for the combined services of garbage and recycling. Although the Commission will set the incentive rate, Staff requests a recommendation from the County on the amount of the incentive rate to be filed by the solid waste collection company.

The Plan does not include a map of the RSA. Before the Commission can allow the company to implement mandatory-pay recycling, the Plan will need to include a map of the RSA showing both mandatory-pay recycling services and voluntary yard waste services.

The Plan establishes a requirement for haulers to publicize any changes to curbside or commercial recycling programs a minimum of three months in advance, using two methods of notice, on pages 4-9 and 4-10. Staff point out that the Commission, and we believe the county too, cannot regulate rates, routes, or services for commercial recycling companies due to the federal preemption by the Federal Aviation Administration Authorization Act of 1994. In addition, Commission rules in Chapter 480-70 WAC are quite specific about notice requirements to customers for rate changes. Staff believe the Plan requirement is in conflict with Commission rules and cannot be implemented.

Throughout Chapter Six – Waste Collection, the Plan describes solid waste collection companies as franchise collectors. The Utilities and Transportation Commission issues Certificates of Public Convenience and Necessity. Please change all references from "franchise" to "certificate" or "certificated."

During Staff review of the Plan, missing data from the Cost Assessment portion consisting of customer counts and solid waste tonnages for the City of Burlington and Waste Management of Skagit County was submitted. This data should be incorporated into the final version of the Plan.

Staff hope this review is helpful in finalizing the draft of the solid waste plan. Please contact Deborah Reynolds at (360) 664-1255 or via e-mail at dreynold@wutc.wa.gov with questions or comments about items in this letter.

Sincerely,

Carole J. Washburn
Executive Secretary

cc: Peter Christiansen, Department of Ecology, Northwest Regional Office
Cullen Stephenson, Solid Waste and Financial Assistance Program Manager