

Preliminary Draft

**SKAMANIA COUNTY
SOLID AND MODERATE RISK WASTE
MANAGEMENT PLAN**

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WA State Department
of Ecology (SWRO)

SKAMANIA COUNTY, WASHINGTON
DEPARTMENT OF PUBLIC WORKS
SOLID WASTE MANAGEMENT DIVISION

November 2013

*Prepared by:
Skamania County Solid Waste*

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THE 2013 SKAMANIA COUNTY SOLID AND HAZARDOUS WASTE MANAGEMENT PLAN

BACKGROUND

The Washington State Solid Waste Management Recycling and Recovery Act, Chapter 70.95 RCW (The Act), requires each county within the state, in association with the cities and towns located within it to plan an integrated and comprehensive solid waste management system that emphasizes waste reduction and recycling. Management of solid waste which cannot be recycled or managed alternatively can be incinerated, landfilled or a combination of the two.

The Act requires plans to specify the management actions that will be taken over a six-year (detailed) and 20-year (general) period. The Washington Department of Ecology (Ecology) issued Solid Waste Planning Guidelines that interpret and expand upon the planning requirements of the Act.

Skamania County Public Works/Solid Waste Management Division (SWMD) is the lead-planning agency for solid waste. Previously, the 2001 Solid Waste Plan incorporated the requirements of the "Waste Not Washington Act," (HB 1671).

In 1989 Clark and Skamania County developed a Moderate Risk Waste Management Plan required under RCW 70.105.225 which allowed a combination of contiguous local governments to prepare a local plan for managing moderate risk waste. It was updated to include the oil requirements.

The 2013 Skamania County Comprehensive Solid and Hazardous Waste Management Plan (Plan) employs the same basic format as presented in the 2001 Plan and is in accordance with the Act and Ecology's Guidelines. This Plan updates all components of the solid waste management system and incorporates the Moderate Risk Waste Plan, to provide the basis upon which future management decisions are determined.

The first step in preparation of the Plan was a study of the physical operations, considered existing conditions. Alternative management strategies were then analyzed in consideration of future County needs and to make the solid waste operation self-supporting by means of reducing costs or implementing appropriate user fees so as not to be dependent on the County's general funds. It is intended that during the course of implementing this Plan, the Solid Waste Advisory Committee (SWAC), and County staff will continue to evaluate these options and recommend implementation for those projects that support the County's goals and objectives, to the Board of County Commissioners.

Recommendations with reference to chapters and sub-sections in which the base materials are discussed are presented in Chapter 9.

Planning Approach and Existing Conditions

The Skamania County solid waste system is a combination of private companies and public agencies. Components of an integrated solid waste management system include:

- Planning process, administration, and enforcement.
- Information and education.
- Solid Waste collection, storage, export and disposal.
- Recyclable Material collection, processing and marketing.
- Moderate risk waste programs.

The Plan provides an assessment of current, solid waste management needs, facilities, and programs. Services differ among components of the solid waste system. The County owned capital facilities are an integral part of several solid waste system components, while the remaining infrastructure is owned and operated by a variety of entities. The components are summarized below, while the general alternatives; descriptions and evaluations are found in the following chapters.

Planning, administration and enforcement includes an inventory and evaluation of existing facilities. It is a twenty-year estimate of long-range needs for solid waste handling facilities. Finally, recommendations for a variety of control and enforcement measures to ensure that the solid waste system will develop and operate as planned are included. The solid waste planning requirements are met by the Skamania County Public Works/Solid Waste Management Division with input from all affected jurisdictions. The Skamania County Health Department has responsibility for enforcement of solid waste regulations and the permitting of facilities.

Information and education is a continuing County planned priority in cooperation with other local jurisdictions and agencies. Where there is opportunity, successful outreach may combine several educational elements into one technical visit. The three primary target audiences in the County are adults, children (K-12) and small quantity generators of moderate risk waste (households and businesses).

Solid Waste has several activities associated with its administration. The Washington Utilities and Transportation Commission (WUTC) regulates solid waste collection in the unincorporated county through issuances of G certificates to qualified companies. As a result, residential and business solid waste collection is available everywhere in the County by private hauling companies.

Cities have the right to contract for solid waste collection, operate a collection service or allow the WUTC to set rates. In Skamania County there are no cities that take advantage of this opportunity.

All solid waste that is collected from residences and business throughout the County and Cities is disposed of outside the County (privately owned and operated collection and disposal companies). Presently, the County owns and operates a solid waste transfer station in Stevenson that has the capability and the capacity to accept compacted loads from solid waste collection businesses. However, during the research for this plan, the WUTC permitted collection companies are not using the facility to dispose of their waste.

Solid waste collection is not mandatory and therefore not all of the waste generators use the collection service, some self haul their wastes. Because the County is required to ensure disposal capacity in some form is available for twenty years, the County owns and operates a total of three solid waste facilities. The Stevenson Transfer Station also accepts self hauled waste, while the Mt. Pleasant and the Underwood drop-box facilities only accept waste from self-haulers.

The County short hauls the waste from the two end facilities to the transfer station facility in Stevenson. The solid waste is then exported long haul for disposal at the Wasco County Landfill, in Oregon.

Residential recyclable material collection services is offered at the three County facilities in accordance with RCW 70.95.092 that states:

Levels of service shall be defined in the waste reduction and recycling element of each local comprehensive solid waste management plan and shall include the services set forth in RCW 70.95.090. In determining which service level is provided to residential and nonresidential waste generators in each community, counties and cities shall develop clear criteria for designing areas as urban and rural. In designating urban areas, local governments shall consider the planning guidelines adopted by the department, total population density, and any applicable land use or utility service plans.

The initial rural designation was based on city size and population density. Using these criteria, all of the incorporated and unincorporated areas of the County are still considered rural. The three County facilities collect residential and commercial recyclable material dropped off by self-haulers. The County short hauls the recyclable materials from Mt. Pleasant and Underwood to the Material Recovery Facility in Stevenson co-located at the Solid Waste Transfer Station. The County processes, markets and long hauls the materials to market.

There is no residential curbside collection of recyclable materials offered anywhere in the County. Some businesses bale and market their own recyclable materials. Other businesses pay to have their recyclable materials collected, but this material is not brought to the County owned and operated recycling facilities.

CHAPTER 1 – INTRODUCTION

The 2013 Skamania County Comprehensive Solid and Moderate Risk Waste Management Plan (2013 Plan) is a revision of the 2001 Skamania County Comprehensive Solid Waste Management Plan. The 2013 Plan manages Skamania County's waste in accordance with the State's solid waste management priorities; Chapter's 173-304 and 350 WAC standards for solid waste facilities and solid waste disposal respectively; and Chapter 340-93 OAR, Solid Waste: General Provisions. The 2013 Plan shall also comply with any revisions or additions to the State law for both Oregon and Washington, since Skamania County's solid wastes are generated in Washington, but disposed of in Oregon.

The 2013 Skamania County Comprehensive Solid and Moderate Risk Waste Management Plan remains in current condition as described by RCW 70.95.110 and has met and will continue to meet the "Maintenance of Plans, Review and Revision" as described.

1.1 Local Governments Agreements

The Interlocal agreements between Skamania County and the Cities of Stevenson and North Bonneville have been updated and reflect the authorization of the County to prepare this Plan revision on their behalf.

The Cities of Stevenson and North Bonneville have taken an active role in the Skamania County Solid Waste Advisory Committee (SWAC). They have active members on the committee and participated in the planning processes (See Appendix A, Interlocal Agreements).

1.2 Goals and Objectives

The guiding principal of the Plan is to preserve the quality of life in Skamania County by protecting the air, soil and water. Although the State did not reach its 50% waste reduction and recycling goal by 1995, it is the first priority of the County to assist the Department of Ecology in its continued attempts to meet that endeavor. To attain this directive the Plan identifies several goals and objectives the County will strive towards. The three key goals include:

GOALS

Goal 1: The County will provide the leadership and cooperation necessary to solve the community problems faced by the generation of solid waste.

Goal 2: All local governments, agencies and jurisdictions will implement and improve upon the Plan's recommendations such that the combined efforts enable the County to identify, meet or exceed the State's recycling goals.

Goal 3: The County will develop solid waste alternatives that are consistent with the State's priorities as defined in Chapter 70.105.150 RCW.

OBJECTIVES

1. Increase the awareness of the Skamania County citizens and businesses regarding a) the opportunities for waste reduction and recycling; and b) the proper methods for solid waste handling, storage and disposal.
2. Establish a leadership role as the County government by defining each department's responsibilities in reaching the goals (close the loop by buying recycled content products).
3. Reduce the quantity of solid waste that is generated in Skamania County.

To reach the Plans Goals and Objectives will require coordinating efforts on local and regional levels, in public and private partnerships and with support of Ecology's Coordinated Prevention Grants Program (CPG).

The County continues to monitor Best Available Technology in these areas and reserves the right to pilot new programs that may enhance the State's Goals and priorities, while easing the County's costs, including: Green mulching, composting, energy recovery, etc.

A preferred outcome of the 2013 Plan is an analysis of the alternative operating scenarios in an attempt to make the solid waste operation self-supporting.

1.3 Plan Relationship to other Local Plans

1.3.1 Hazardous Waste

Skamania County Solid Waste Management Division does not accept hazardous waste at the transfer stations. The generators of hazardous waste are referred to appropriate companies and/or landfills for disposal of their hazardous waste. The County does have a hazardous spill plan through the Hazardous Waste Agency Coordinating Committee that has been prepared and administrated by the Department of Emergency Services.

1.3.2 Moderate Risk Waste Plan

Until recently, the Moderate Risk Waste Plan was a cooperative agreement between Clark and Skamania Counties with the Southwest Washington Health District as the Lead Agency. With the 2001 Plan revision the Skamania County Solid Waste Management Division (SWMD) accepted the authority for program implementation and has included the MRW Plan as a Chapter within the Plan

The Solid Waste and the Moderate Risk Waste Plans have been combined to form this five-year Plan. Management efficiencies are anticipated due to similar health risks posed by the waste streams and include permitting and enforcement. Other efficiencies such as the same planning area and streamlined education programs will allow the County to be more responsive to the needs of the public, eliminate duplication, and increase effectiveness.

1.3.3 Comprehensive Land Use

All solid waste or moderate risk waste facilities/activities presently sited in the County meet the requirements of the current Skamania County Zoning Ordinance and are aligned with the Columbia Gorge Management Plan.

1.4 Planning History of Solid Waste/Evaluation of Goals and Recommendations

The 1974 Solid Waste Generation, Disposal, and Management Plan determined that the environmental conditions in the County were not conducive for the siting of a sanitary landfill. It was recommended that the three open dumpsites in the County be closed and the waste collected and exported to an out-of-county landfill disposal site. The plan recommended that the solid waste be managed at a transfer station(s) type facility. The handling of special wastes was established for materials such as tires, white goods, aluminum etc. A special area was set up for the collection of yard and building debris, and at a minimum of once a year the pile was burned. The recommendations of this plan set the stage for future management activities.

The 1984 Solid Waste Management Plan initiated/continued to implement those programs recommended in the earlier plan. The landfill was closed and a Solid Waste Transfer Station was constructed, combined with a Material Recovery Facility (MRF) in The City of Stevenson. The solid waste was dumped onto a conveyor that first passed through the Material Recover Facility. Here staff would pick recyclable materials from the commingled waste. The combustibles were also sorted and processed by a Refuse Derived Fuel (RDF) Pelletizer into fuel pellets.

Other operations included drop box facilities at Mt. Pleasant and Underwood; exportation of solid waste to landfills outside the County, and the prominence of waste reduction and recycling elements with an emphasis on education. A cost reduction in the operation of the solid waste system was also recommended. These recommendations were implemented.

The 1991 Skamania County Comprehensive Solid Waste Management Plan assessed the costs of the major components in the solid waste program. The source separation of recyclable materials was determined to be more cost effective than the labor-intensive waste sort. The pilot refuse derived fuel project was discontinued. During implementation of the 1991 Plan, the transfer station was moved to a new location. Solid waste from self-haulers is compacted and exported to a landfill out of the County. The WUTC franchised solid waste G certificate services do not use, and have not used, the County owned facilities throughout the twenty-year implementation of the Plan. The County was forced to raise its rates to pay for the new facilities, causing a downward spiral in the waste volumes.

The importance of waste reduction and recycling was re-emphasized in the 2001 Plan. The 2001 Plan stressed the need to implement steps to reduce the amount of waste disposal going to the landfill. It provided monetary incentives to those citizens who source separated their waste when hauling to the transfer station or the drop box sites. People were allowed to drop off recyclable materials at no charge. Adjacent to the Stevenson Transfer Station a Material Recovery Facility was constructed. Here source separated materials were conveyed across a pick line so that County staff could sort out residual material.

1.4.1 Planning Process

The planning process for this Revision began in March 2009, when the Skamania County Solid Waste Management Division (SWMD), The Skamania County Health Department (SCHD), Solid Waste Advisory Committee (SWAC), and the Washington State Department of Ecology (Ecology); and others agreed to develop a revised Skamania County Comprehensive Solid and Moderate Risk Waste Management Plan. With guidance from the Solid Waste Advisory Committee (SWAC) County staff produced this Plan.

They conducted and evaluated local records and reports, and reviewed regional and state waste data from the public and private sectors. The committee input was used to identify specific needs and concerns of the small business community and the general public. It developed a list of programs and assigned final priorities to the programs.

1.4.2 Public Participation

Chapter 70.95 RCW, and RCW 70.105.220(b) and (d) require localities, that develop and implement Solid Waste and Moderate Risk Waste (MRW) Plans, to involve the public in the process. Skamania County invited the public to participate in reviewing project findings, evaluating and selecting management strategies and alternatives, and approving the draft plan. The community involvement program contained the following elements:

- County SWAC
- Creation of a fact sheet distributed to county residents and businesses
- Advertisement campaign
- Public meeting
- Briefings to participating jurisdictions during plan adoption

1.4.3 Adoption Procedures

Procedures for adopting the 2013 Skamania County Comprehensive Solid and Moderate Risk Waste Management Plan (2013 Plan) follow Ecology's Planning Guidelines. These include:

- Technical Draft review by the Solid Waste Advisory Committee (SWAC), County Solid Waste Management Division (SWMD), and the Skamania County Health Department. The Preliminary Draft 2013 Plan is submitted concurrently to the public and the two state agencies, Washington Utilities and Transportation Commission (WUTC) and Ecology; 120 day plan review period.
- The Final Draft 2013 Plan incorporates comments received into this draft from the public and the state agencies: Ecology, WUTC.
- The final Draft Plan is presented to the Cities for adoption, to the County Council for adoption, and is then sent to the Department of Ecology for approval; 45 day plan review period.

The timeline for the 2013 Plan is as follows:

- August – September 2013, Technical Draft Plan review and SEPA determination: County Planning Department and Solid Waste Management Division/City Staff, SWAC, SCHD.

- September – December 2013, 120 day Preliminary Draft Plan review: State agencies (Ecology, WUTC); County/City public meeting(s).
- March 2014, respond to Preliminary Draft Review comments.
May/June 2014, 45 day Final Draft Plan review: Ecology.

1.4.4 Plan Revision Procedures

Throughout the course of implementing the 2013 plan, it is expected that program recommendations may be modified. The duration of programs could be a construction period or an event, or, an achieved action that is not repeated. Some programs will be discontinued as others are introduced. Still others may be repeated continuously but altered upon evaluation of the desired outcome, or the breadth of success.

As mentioned above, amendments to state or local laws or changes in technology may also occur. The 2013 Plan will remain current under these conditions. The County will rationally review applicable opportunities and best management practices when presented, either local or regional in scope. Alternatives within the 2013 Plan can be implemented provided they are consistent with the intent of the plan and do not significantly alter the administration of the plan. These actions will be considered insignificant and do not require a plan revision. While no formal process is required, the staff will inform the SWAC when benchmarks are achieved, at measured success of events and as each new activity is initiated, for example, staff will inform the SWAC when the recycling materials list is amended.

When an unplanned activity is deemed necessary, when the intent of the plan is altered or when environmental or economic activities impact the planned programs, those changes to the plan will be considered significant. Changes to the plan that affect the rights or responsibilities assigned by the plan will be considered significant. Where changes are significant, the process described above in Subsection 1.4.3 will be followed.

1.4.5 Plan Revision

The Moderate Risk Waste Management Plan is designed to be reviewed and revised as necessary along with the planning schedule of the 2013 Skamania County Comprehensive Solid Waste Management Plan (Plan). When completed, the 2013 Plan will be available for public review and for sale at the Courthouse Annex, Public Works office, and the Solid Waste office; and will be on file at the Skamania County Public Library. To remain current, the 6 year Implementation Schedule and 20 year long-term needs analysis must be revised periodically, at least every 5 years.

1.5 General Description of the Planning Area

This subsection provides information about the planning area and about local, state and federal programs pertaining to solid and moderate risk waste. This information includes population, economics, land use, past practices and existing infrastructure, needs and opportunities, regulations and financing.

1.5.1 Physical

Skamania County is located along the southern boundary of Washington State. It is bordered on the west by Clark and Cowlitz Counties, the north by Lewis County, the east by Klickitat and Yakima Counties and the southern border by the Columbia River/Oregon. The major roadway is State Route # 14, traveling east and west along the Columbia River.

1.5.2 Natural

The topography of the County is mountainous with elevations ranging from 75 feet near the Columbia River to 8365 feet the summit of Mt. St. Helens. The County is heavily forested rugged terrain and the majority of the County is located in the Pinchot National Forest and the Mt. St. Helen National Volcanic Monument. The County has 1,672 square miles.

The climate is West Coast Mediterranean, a rainforest with moderate temperatures for most of the year; with yearly average lows of 44.3 degrees and highs of 61.8 degrees. The number of days over 90 degrees is 7 and the number of days below 32 degrees is 38. The average growing season is 210 days. The average number of days per year of precipitation is 69 days of rain and 12 days of snow, sleet, hail etc. The average yearly rainfall is from 40 inches in the eastern part of the County, to 115 inches in the central and western parts of the County.

The soil of the county is typical colluvial material, shallow and providing poor drainage. The potential for erosion is high; creep and active soil movement is visible along the southern edge of the County. Previous determinations conducted by the County Public Works Department show the soils of the County to not be suitable for landfill construction, with the possible exception of the most eastern part of the County.

The geology of Skamania County is land formations developed from lava flows, volcanic activity and subsequent bending, uplifting, and weathering. The significant geological features include water level passage through the Cascade Mountains, Mt. St. Helens (an active volcano), and several unique land formations along the Columbia River.

The environment of the County is mostly federally forested land. The land in private ownership is along the Columbia River; land use on the East End of the County is mixed among single family households, small farms and orchards. On the West end of the County rapid development of single family dwellings is occurring; providing a bedroom community for jobs in the Metro area (the Cities of Portland and Vancouver). The environment provides clean air and scenic beauty, attracting recreational development. However, the Columbia Gorge National Scenic Area Act regulates development and growth in the area along the Columbia River.

1.5.3 Demographics:

While the Physical, Natural, and Transportation elements of the previous plans have not changed significantly, the population and the economics of the area have. The following are the 2010 population statistics as furnished by the Washington State Office of Financial Management (OFM):

Table 1-1: 2010 Skamania County Population Statistics	
Category	Population
County Population	10,894
Households	4,058
Businesses (est.)	877

Population:

The population of Skamania County is concentrated in the southern quarter of the County near the Columbia River, where the Cities of Stevenson and North Bonneville are located. Several population trends have been observed in the past decades. The decade of the 1970's experienced a 35 percent increase in growth. For more than half of the 1980's the population slightly declined, but recovered by 1990, for an overall increase of approximately 4 percent.

During the 1990's the total County population changed significantly. It grew at a rate higher than nineteen-percent. The City of North Bonneville saw the greatest increase at 37 percent, while the City of Stevenson saw an increase of 11 percent. OFM has projected that the Skamania County population will increase by 4,903 people by the year 2025, an annual growth rate of 1.6 percent. These figures are within the 20-year population estimates prepared by the Skamania County Planning Department and found in Chapter 2, Table 2-5 of the Plan.

Socioeconomic:

There are nearly 2000 persons employed in the County. The average monthly employment is distributed between government (40%), services and retail trade (35%) and manufacturing (15%). Previously, the County's economy was primarily a wood products industry. It was 64% of total employment in 1985. Since the loss of that economy, no industry has emerged to compensate for that employment. Instead there has been significant growth in the retail trade and service sectors. No longer a forestry/agriculture economy of a typical rural nature, the County is rather a mixture of urban activities (service and retail trade, retired, bedroom community, hobby farming, etc.) situated along the State Highway 14 corridor.

Major private employers in Skamania County include the Skamania Lodge, Wilkins, Kaiser, and Olsen Inc. (WKO), SDS Lumber Co., and Scottco Manufacturing. Some of the larger governmental employers include Skamania County, Stevenson-Carson School District, Port of Skamania, U.S. Fish and Wildlife, and the U.S. Corps of Engineers

Land Use:

The vast majority of land within Skamania County is federally owned and forested. Private land accounts for 19 percent of the total land in the County. There are two incorporated cities within the County, Stevenson and North Bonneville. The dominant land use is residential and commercial. While both Cities have areas zoned industrial, Stevenson is only zoned for light industry, while North Bonneville does not distinguish between light and heavy industry. In compliance with state law (RCW 70.105.225) the County designates land use zones in which hazardous waste treatment and storage facilities are allowed as a permitted use.

Zone Designations:

As discussed fully in the Moderate Risk Waste Chapter of the 2013 Plan, Skamania County's Zoning allows for on-site hazardous waste treatment and storage facilities in community commercial zones and industrial zones. Off-site facilities are allowed in industrial zones only. It was noted in the previous 1989 MRW Plan, all jurisdictions in Skamania County submitted a certificate of compliance verifying the amended zoning language to Ecology and have been approved.

Transportation:

State Roads:

The major roadway is State Highway #14. It follows the Columbia River along the County's southern boundary for 45 miles. State highway 140, located in the western part of the County, is 4 miles in length.

County Roads:

Skamania County has 250 miles of roadways. Most of the roadways are paved and over 90% of the roads serve single family residences. The major County roads include:

- The Cook-Underwood road - 14 miles in length,
- The Washougal River Road - 8.45miles in length,
- The Wind River Highway is 30 miles long but only the first 14 miles have residential dwellings.

With the majority of the County roads being paved, they are of adequate size and structure for solid waste collection vehicles.

Private Roads:

There are 210 private roads in the County with a minimum of four households per road. Some have limits for load width and carrying capacity. These are handled by agreements reached between the solid waste franchise collection company and the respective road owner as to placement of waste container for collection.

City Streets:

Integrated into the County road network are the street systems for the cities of Stevenson and North Bonneville.

Other transportation systems in the County include the Burlington Northern Railroad, which runs along the Columbia River. The rail system transports solid waste through the County from points north – King and Snohomish Counties, etc. The Columbia River provides for barge and boat traffic with stops available along the river. Clark County barges its waste up the Columbia River to landfills in Oregon. In the future the railroad and the river may provide transportation alternatives for the County's waste stream - shipped to landfills/facilities in Oregon or Washington.

1.6.1 Estimates for the Six and Twenty Year Programs

The 2001 Plan projected: 1. Solid waste volumes to increase by 10% in three to five years (highest estimate); and, 2. Population to increase by 2.3% every six to ten years. The greatest variable to the 2013 Plan estimate was the impacts associated with the construction and operation of the Skamania Lodge/Conference Center (the 2001 Plan estimated solid waste volumes to rise by 700 tons). Table 3 above shows that the increase in MSW between 1990 and 1995 was 651 tons per year while 2010 disposal amounts decreased. Please note the dramatic increase in recyclable volumes during the same period. The waste projections for the next twenty years would dictate no change in operations and therefore no new construction projects. The only special situation that might be foreseen is a dramatic increase in the amount of material patrons are recycling. If patronage at the Stevenson Transfer Facility recycling area doubles, staging area for the patron vehicles will have to be increased. No new capital acquisitions will be needed in the next six years. All machinery and equipment is incorporated into the Equipment Rental and Revolving (ER&R) division. The ER&R division maintains and replaces all machinery and equipment on a predetermined schedule. The Solid Waste Division pays for this service through hourly rates and /or yearly fees.

Table 1-2 shows the current Skamania County Planning Department's 20-year population projections:

Table 1-2: Skamania County Population Projection: 2031

Low	11,697
Median	12,809
High	14,429

To be conservative the Plan uses the high value. Table 1-3 shows the population and solid waste projections, based on existing operations, for one, three, six and twenty years using straight-line projections:

Table 1-3: Strategic Population and Solid Waste Projections (tons)

<u>Demographic</u>	<u>Year 1</u>	<u>Year 3</u>	<u>Year 6</u>	<u>Year 20</u>
Population	10794	11,596	11,969	15,000
MSW self-hauled (S-H)	2,535	2,655	2,775	3,335
MSW curbside collected	2,242	2,362	2,482	3,042
Recycled materials (S-H)	920	1,040	1,160	1,700
Total MSW and recycle	5,697	6,057	6,417	8,077

This growth will not represent any burden to the existing infrastructure of the County's Solid Waste Facilities. Although "special situations" could occur in future operations and overburden the system for a short period of time, it is unlikely to last very long. Therefore, there are no construction and capital acquisitions that are projected to be needed in the six and twenty year forecasts.

CHAPTER 2 – WASTE STREAM DISCRIPTIONS

This chapter describes the solid waste stream in Skamania County, including quantities, sources, and composition of generated, recycled and disposed waste. The purpose of this chapter is to create a foundation of solid waste data upon which predictions for future handling needs can be based with reasonable confidence. This information is also used to set rates, devise facility management strategies, and develop and monitor solid waste programs.

The definition of “solid waste” means all putrescible and nonputrescible solid and semi-solid wastes including garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials Revised Code of Washington (RCW) 70.95.030. Municipal solid waste (MSW), a subset of solid waste, refers to wastes normally collected from residential households, commercial businesses and drop-box stations. Hazardous and dangerous wastes are defined and regulated separately by Washington Administrative Code (WAC) 173-303, “Dangerous Waste Regulations.”

2.1 Waste Sources, Quantities, Trends and Recycling Rates

Prior to the 2001 County Solid Waste Plan and through the ‘90’s, solid waste disposal numbers were measured and reported in cubic yards, a measurement that is based on the estimated fullness of the container or vehicle entering the reporting facility. This method is inherently inaccurate, although more-or-less comparable from year to year. In late 2001 and early 2002, scales were installed at all three Skamania County transfer facilities.

The tables and figures herein have converted cubic yards to tons using average waste densities, and for the last few years, weight receipts from the export landfill have been maintained. However, in 1998 the Stevenson Transfer Station burned and most of the historical records were lost.

The tables and figures herein are actual weights received at the three transfer facilities and final landfill destination. Therefore actual waste volumes have been tracked and collected since 2002.

MSW can be tracked and reported as residential and commercial curbside collection or residential and commercial drop-off in Skamania County. However, the only waste received at the Skamania County Facilities is from residential and commercial customers that self haul their own wastes (drop-off). The franchised collection systems do not dispose of the waste at the Stevenson Transfer Station. The volumes presented below reflect the numbers reported by the collection company and/or the county facilities.

Current (2009) waste volumes, received at the county transfer station and drop-box facilities, are shown in Table 2-1. In turn, the waste accumulated at the county facilities is exported to The Wasco Landfill in Oregon.

Table 2-1: 2010 Solid Waste Disposed (tons)

	<u>Stevenson</u>	<u>Mt. Pleasant</u>	<u>Underwood</u>	<u>Total</u>
MSW*	1381.2	1072.8	80.7	2,535
Recycle	536	318	66	920
Total	1917.2	1390.8	149.7	3455

*Based on tonnage shipped to the Wasco landfill.

In addition to the waste shipped by the county, the franchise collection companies (Skamania Sanitary and Bingen Garbage) export solid waste collected in the county. The Lion's Club exports recyclable materials collected in the County. Table 2-2 shows totals of the county waste self-hauled and/or collected in tons per year (TPY).

Table 2-2: 2010 Total Quantities by Source (tons)

<u>Generator</u>	<u>Volume</u>
MSW - Skamania Sanitary	822
MSW - Bingen Garbage	2053
Recyclable Materials - Lions Club	189
MSW & Recyclable Materials - County	3455
Total Exported (tons per year)	6519

In 2009, per capita disposal of MSW was 3.78 pounds per person per day in Skamania County. Ecology calculated a state average of 4.0 in 1995, while typical waste generated per capita per day nationwide is 4 to 5 pounds. At this rate the county could generate approximately 7,200 to 9,000 tons per year. The benefits associated with typical volumes and corresponding revenues generated are discussed elsewhere in the Plan.

2.2 Summaries of Waste Stream Descriptions

Skamania County's waste trends were compared using the 2001 Plan, the 1995 Skamania County Solid Waste System Analysis Report and the 1997 data as part of this Plan Revision. In comparing 1990 data to 1997 data, results from Table 2-3 show that the population has increased by over twenty percent; the reported solid waste stream has remained steady; and the recycling volumes have nearly tripled.

Table 2-3: Solid Waste Disposal Rates (tons)

Year	1991	1995	1997	2010
Population	8,200	9,000	9,000	10,800
Solid Waste (disposed)	3,531	4,061	3,071	2,535
Recyclable Material	309	430	587	920
Total	3,840	4,491	3,658	4,246

There are several possible explanations for the low or reduced solid waste volumes:

- The low-density, rural population allows for private dumping and illegal burning.
- County residents can self-haul waste to out-of-county facilities that have lower rates.
- The WUTC Certificate Solid Waste Collection Companies do not use the county transfer Station.

The analysis suggests that even though all constituents are paying for the county provided transfer station and drop-box services not everyone is using the system. The number of households that subscribe to curbside collection services is low, suggesting that private dumping, illegal burning, and waste export may have kept the per capita volumes below the state average.

Special Wastes

Special waste means any waste that is otherwise considered acceptable, but because of its unique characteristics, requires special handling and is thereby subject to a special fee. The Stevenson Transfer Station and Mt. Pleasant and Underwood Drop Box Facilities may reject special waste at any time. Special waste includes but it not limited to:

- Any dead animals.
- Tires.
- Scrap iron
- White goods and appliances.
- Discarded or abandoned vehicles or major parts thereof,
- Discarded home and industrial appliances,
- Wastes that are large, bulky or extra heavy that would otherwise be classified as unacceptable waste, but are accepted by the station.

2.3 Estimates for the Six and Twenty Year Programs

The 2001 Plan projected: 1. Solid waste volumes to increase by 10% in three to five years (highest estimate); and, 2. Population to increase by 2.3% every six to ten years. The greatest variable to the 2013 Plan estimate was the impacts associated with the construction and operation of the Skamania Lodge/Conference Center (the 2001 Plan estimated solid waste volumes to rise by 700 tons). Table 2-3 above shows that the increase in MSW between 1990 and 1995 was 651 tons per year while 2010 disposal amounts decreased. Please note the dramatic increase in recyclable volumes during the same period.

Table 2-4 shows the current Skamania County Planning Department's 20-year population projections:

Table 2-4: Skamania County Population Projection 2031

Low	11,697
Median	12,809
High	14,429

To be conservative the Plan uses the high value. Table 2-5 shows the population and solid waste projections, based on existing operations, for one, three, six and twenty years using straight-line projections:

Table 2-5: Strategic Population and Solid Waste Projections (tons)

<u>Demographic</u>	<u>Year 1</u>	<u>Year 3</u>	<u>Year 6</u>	<u>Year 20</u>
Population	10,794	11,596	11,969	15,000
MSW self-hauled (S-H)	2,535	2,655	2,775	3,335
MSW curbside collected	2,242	2,362	2,482	3,042
Recycled materials (S-H)	920	1,040	1,160	1,700
Total MSW and recycle	5,697	6,057	6,417	8,077

This growth will not represent any burden to the existing infrastructure of the county's solid waste facilities.

2.4 Inter/Intra County/State Transfer of Waste

2.4.1 Intra-County Transfer

Intra-County transfer of waste occurs when waste is shipped between the two Drop Box Facilities (Underwood and Mt. Pleasant) and the Stevenson Transfer Station. The options for waste transference include shipping compacted waste from the drop box locations to Stevenson, where they are stored prior to export. Recyclable materials also flow similarly from the Underwood and Mt. Pleasant sites to the Stevenson Transfer Station. Located at the Stevenson site is a Material Recovery Facility (MRF), which operates as a clean MRF. Here, the recyclable materials are clean sorted (the residuals are removed). The material is then consolidated, baled and stored prior to marketing.

Possible future pilot projects such as the separate handling of carbon based materials may also have waste transfer impacts. While presently exported to the landfill, yard and garden debris,

brush, woody wastes and clean building demolition may be composted or processed into refuse derived fuel (RDF) and burned in a co-generation facility. The project depends on demand, infrastructure necessary to implement and the quantity, quality and composition of the material.

2.4.2 Inter-County Transfer

Inter-county waste transfer occurs when waste is imported into the county system. While no compacted loads are imported to the Underwood and Mt. Pleasant facilities, self-hauled waste in cans and pick-up trucks are received from Clark and Klickitat Counties. This waste is designated out of county waste and charged at the same rate as county waste. Solid waste moves through the county via the existing transportation corridors, state highway, railroad tracks or the Columbia River.

Some inter-county hauling is done with recycling. All of the markets for recycling are in Oregon. Paper and cardboard recyclables are stockpiled at the Stevenson Transfer Station or in the case of white goods, tires and scrap metal, materials may be shipped from the drop-box facilities. When the amounts dictate they are picked up by the buyers of the products and transferred to their mills. Un-processed loose rigid plastic recyclable materials are shipped to market from the Stevenson Transfer Station or in the case of glass, loose plastics, and scrap metal – these materials may be shipped from the drop-box facilities also. Freon appliances and tires are transported to the Stevenson transfer facility from the other transfer facilities and consolidated. When amounts dictate, the materials are either picked up at the Stevenson transfer facility or directly hauled to the recyclers in Oregon.

2.4.3 Inter-State Transfer

As mentioned earlier, both recyclable materials and solid waste are transferred out of county to facilities in Oregon. The inter-state transfer of solid waste is to the North Wasco County Landfill. Portland is the location of several markets for recyclable materials along with Toledo and Newberg Oregon.

Solid Waste:

Solid Waste is hauled from the Stevenson Transfer Station to the North Wasco County Landfill located east of The Dalles, Oregon. In the past, solid waste was shipped from the Underwood Drop-Box Facility directly to the landfill. The county reserves the option to transport directly from the drop-box facilities in the future should the need arise.

Through the competitive bidding process the present contract was awarded to Waste Connections and is in effect until the year 2014 with the option to renew for an additional four two year terms. In late 1990's the landfill ownership changed. The new owner, Waste Connections has signed an agreement with Skamania County (See Appendix B)

The franchise solid waste collection services that provide curbside collection in Skamania County are Skamania Sanitary and Bingen Garbage. Both Companies transport all of their waste out of the County. Most is exported to Oregon, to the North Wasco County Landfill. The remainder is taken to the Roosevelt landfill in Klickitat County, Washington.

Recyclables:

The recyclable materials are transported to the best markets in the Vancouver, Washington and Portland, Oregon areas. There are no specific agreements with these companies. The county is constantly seeking for the best market available. While some markets are available for mixed materials, clean, processed materials have a better market return. Recyclable paper bales and cardboard bales are picked up and taken to recycling mills by the mills. Plastic products are shipped loose to recyclers in Portland. All other recycle streams are cleaned and processed then taken directly to recyclers in Portland. While some markets are available for mixed materials, clean, processed materials have a better market return.

The described methods for the transfer of waste are similar to those mentioned in previous plans. As practical, based on the alternatives presented in the Plan, the county may choose to:

- Continue to contract out the hauling of materials or use county staff to haul materials.
- Eliminate the need to export waste if a landfill is constructed in the county.
- Accept imported waste to any permitted facility in the county.
- Encourage county and city residents to use the county facilities.
- Eliminate the health and safety issues related to illegal dumping and burning.
- Ensure that exported waste is disposed at permitted facilities reducing county liability where solid waste is disposed.
- Foster a cooperative attitude between the county, the cities and the franchise service providers.
- Continue to examine regional solutions.

CHAPTER 3 – SEPA CHECKLIST

The operation and handling systems are the same as presented in previous plans with two exceptions: 1. The geographical relocation of the Stevenson Transfer Station and Material Recovery Facility, and the annual increased effort to promote waste reduction and recycling; waste diversion and reuse. The operational procedures of the transfer stations are under the direction of the County Public Works Department, specifically the Solid Waste Management Division. The Capital Facilities Plan, the Administration and the Operational aspects of the transfer station, drop box facilities; and the collection, storage and hauling systems are all a part of the State Environmental Policy Act (SEPA) evaluation.

The SEPA Check List and Determination of Non-significance are enclosed. The documents are related only to the programmatic aspects of the 2013 Plan and do not relieve the SEPA requirements of siting facilities as may be necessary during implementation. The 2013 Plan has addressed the environmental issues and it is the intention of the Solid Waste Management Division to continue to observe them when considering alternatives or implementing the preferred program(s). This Determination of Non-Significance was initially issued on October 9th 2013 , for a 15-day comment period that closed October 24nd 2013.

The 2013 Plan and the enclosed SEPA document have been reviewed by the Cities of Stevenson and North Bonneville, Ecology, the Southwest Washington Health Department, and other interested agencies.

Prior to the siting of a new Stevenson Transfer Station, a SEPA checklist was prepared. Lead Agency was the County Planning Department under the direction of Mr. Bob Lee, who prepared the SEPA checklist and made the Determination of Non-Significant adverse environmental impact (DNS).

Operation changes at each facility that fall within the alternatives of the 2013 Plan will not affect this SEPA document and the implementation of alternatives will tier under this Checklist as noted in the following examples:

- If a site is discontinued, mothballed or reduced in operational activities.
- When improvements are instituted that make the site safer.

To: Skamania County Pioneer

Publish: October 9, 2013

**NOTICE OF INTENT
DETERMINATION OF NON-SIGNIFICANCE**

DESCRIPTION OF PROPOSAL: 2013 Skamania County Solid waste and Moderate Risk Waste Management Plan

PROPONENT: Skamania County Public Works
Brad T. Uhlig, Solid Waste
PO Box 1009
Stevenson WA 98648

FILE NO. SEP-13-06

LOCATION OF PROPOSAL: Incorporated and unincorporated areas of Skamania County.

Skamania County is the lead agency.

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. A copy of the environmental checklist is available to the public upon request.

This DNS is issued under 197-11-340(2); the lead agency will not act on this proposal for 14 days from the publication date below. All comments must be submitted to the Community Development Department within 14 days from the publication date listed above, by 5:30 p.m. This DNS may be withdrawn, modified, reconsidered or replaced with a Mitigated Determination of Non-Significance or a Determination of Significance (DS) if the responsible official determines that mitigation or significant adverse impacts are likely.

The issuance of this determination of nonsignificance does not constitute project approval. The application must comply with all applicable requirements of Skamania County Code prior to receiving any permits.

Publication date: October 9, 2013



Karen A. Witherspoon, AICP, Director

APPEALS

There shall be no administrative appeals of environmental threshold determinations. Failure to comment on this Notice of Intent shall be determined to deny a party standing to appeal the final determination with the underlying government action to a court of competent jurisdiction.

RECEIVED
SKAMANIA COUNTY

SEP 17 2013

COMMUNITY DEVELOPMENT
DEPARTMENT

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of proposed project, if applicable:

2013 Skamania County Solid Waste and Moderate Risk Waste Management Plan
2. Name of applicant:

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

Brad T. Uhlig, Solid Waste & Recycling Supervisor
Skamania County Public Works
PO Box 1009
Stevenson, WA 98648
(509) 427-3926
4. Date checklist prepared:

September 1st 2013
5. Agency requesting checklist:

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

Anticipated Adoption of Plan in June 2014
7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Updates of the Solid Waste and Moderate Risk Waste Plan (Plan) are required every five years by the County and the State of Washington.
8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

The County issued a Determination of Non-significance for the original plan completed in 1991.
9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No
10. List any government approvals or permits that will be needed for your proposal, if known.

The Plan must undergo review and approval by the Department of Ecology (DOE) before the Board of Commissioners may adopt it. Participating incorporated Cities of North Bonneville and Stevenson will comment and adopt the plan as well thru inter-local agreements.

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

The Plan is a 20-year planning document prepared in accordance with the provisions of Chapter 70.95 RCW. The plan includes the following sections: Local Governments Agreements, Planning Approach and Existing Conditions, Goals and Objectives, Plan Relationship to other Local Plans, Planning History of Solid Waste/Evaluation of Goals and Recommendations, General Description of the Planning Area, Waste Sources, Quantities, Trends and Recycling Rates, Summaries of Waste Stream Descriptions, Estimates for the Six and Twenty Year Programs, Inter/Intra County/State Transfer of Waste, Conducting Public Involvement and Education, Solid Waste Handling Systems, Waste Disposal, Waste reduction and Recycling, Other options and Considerations, Formation of Special Districts, Collection, Enforcement, Administration, Existing Total Solid Waste Operation Costs, Waste Disposal Costs, Summary of Analyses of Various Operating Scenarios, Moderate Risk Hazardous Waste Management Plan: General Administration, Background Information, Existing Programs, Dangerous Waste Generators, Remedial Action Sites, Used Motor Oil Collection Program, Household MRW Collection Program, Used Antifreeze Collection Program, Small Quantity Generator Collection Program, Regulatory Framework, Regulations, Federal Laws, State Laws, Needs and Opportunities, Program Alternatives and Recommendations

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

The activities proposed in the Plan apply throughout the boundaries of Skamania County.

B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other

Skamania County has a diverse topography that includes each of these.

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

Not applicable

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Not applicable

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

Not applicable

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Not applicable

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

No

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

No Change

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

None

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

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

Not applicable

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

None

3. Water

- a. Surface:

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

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Not applicable

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

Not applicable

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

Not applicable

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

The Plan occurs throughout the County, including many areas that lie within the 100 year flood plan.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No

b. Ground:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

Not applicable

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

No

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Not applicable

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

No

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

None

4. Plants

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

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

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

None

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

None

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

Not applicable

5. Animals

- a. Circle any birds and animals that have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other: X
mammals: deer, bear, elk, beaver, other: X
fish: bass, salmon, trout, herring, shellfish, other: X

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

Northern Spotted Owl,
The Plan will not affect any of these species.

- c. Is the site part of a migration route? If so, explain.
There are migration routes for birds and salmonids in Skamania County, non affected by this Plan.

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

None

6. Energy and natural resources

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

The use of fossil fuels may increase beyond current consumption rates to collect, transport and dispose or recycle municipal solid waste.

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

No

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None

7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

Users of the solid waste disposal system may potentially violate safe disposal requirements by introducing materials into the waste stream that can cause environmental health hazards. Also, the County provides a yearly mobile Household Hazardous Waste Collection event that collects wastes that pose threats to the



environment and human health, accidental spills may occur during collection and transportation of these materials.

1) Describe special emergency services that might be required.

The County and its contractors receive training to deal with the proper handling of discovered materials that may enter the waste stream illegally. Also, there are established protocols if an accidental spill occurs at the Drop Box or Transfer Facilities.

2) Proposed measures to reduce or control environmental health hazards, if any:

The Plan encourages local residents to use of products that do not create moderate risk waste and maintains an enforcement program to insure that the public follows safe disposal practices.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Noise of vehicles collection and transporting municipal solid waste. Noise created during normal business hours.

3) Proposed measures to reduce or control noise impacts, if any:

None

8. Land and shoreline use

a. What is the current use of the site and adjacent properties?

The Plan provides service to residential, commercial, industrial and public land uses.

b. Has the site been used for agriculture? If so, describe.

This Plan provides collection services to agricultural business in the County.

c. Describe any structures on the site.

None

d. Will any structures be demolished? If so, what?

No

e. What is the current zoning classification of the site?

The Plan has jurisdiction in all County and Municipal zones.

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

The County and Municipalities have comprehensive plans with unique land use designations. The Plan integrates with each comprehensive plan.

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

Not applicable

- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

None

- i. Approximately how many people would reside or work in the completed project?

None

- j. Approximately how many people would the completed project displace?

None

- k. Proposed measures to avoid or reduce displacement impacts, if any:

None

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The County and each incorporated City participated in the development and approval of the plan. Each jurisdiction is responsible for ensuring consistency with all plans, policies, and regulations.

9. Housing

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

Not applicable

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

Not applicable

- c. Proposed measures to reduce or control housing impacts, if any:

None

10. Aesthetics

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

Not applicable

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

Not applicable

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

None

11. Light and glare

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

Not applicable

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

Not applicable

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

Not applicable

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

None

12. Recreation

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

Skamania County has a wide range of designated and informal recreational opportunities. These activities benefit from the plan by disposing of municipal solid waste generated by the public during enjoyment of these opportunities.

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

No

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

None

13. 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.

There are sites in both the County and incorporated Cities that are on a national, state, and local preservation registers.

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

Most of these sites receive the benefit of the services promoted by the plan.

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

None

14. 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.

Not applicable

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

Yes. Bus stops are distributed throughout the County on established transit routes.

- c. How many parking spaces would the completed project have? How many would the project eliminate?

None

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

No

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

WITHIN THE County, Trucks are currently the primary transportation method used for collection and transporting municipal solid waste. The final destination is Wasco landfill in Oregon.

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Trucks generally operate Tuesday thru Sunday transporting waste during normal business hours.

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

None

15. 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.

No

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

None

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

All of the above utilities are within the plans operating area.

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

Not Applicable

C. SIGNATURE

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

Signature: Diane McElfresh

Date Submitted: September 18, 2013

D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS
(Do not use this sheet for project actions)

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

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

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

All facilities have been previously constructed, and all environmental requirements complied with. The Plans intent is to prevent the improper disposal of solid and moderate risk waste that would endanger human health and the environment. The collection and storage of waste will meet the minimum functional standards of State Law, and best management practices. The implementation of the Plan will reduce adverse environmental impacts to the County.

Proposed measures to avoid or reduce such increases are:

Implement site safety plan, operations plan as well as this plan.

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

See #1 above

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

See #1 above

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

See #1 above

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

See #1 above

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

See #1 above

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

See #1 above

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?

See #1 above

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

See #1 above

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

See #1 above

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

See #1 above

7. Identify, if possible, whether the proposal may conflict with local, state, or federal

See #1 above

D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS
(Do not use this sheet for project actions)

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

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

Proposed measures to avoid or reduce such increases are:

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

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

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

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

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

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

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?

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

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

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

7. Identify, if possible, whether the proposal may conflict with local, state, or federal

CHAPTER 4 – CONDUCTING PUBLIC INVOLVEMENT AND EDUCATION

The success of the educational elements identified in the 2001 Plan is evident in a double-digit recycling rate. Specifically targeted were self-haul customers, since the majority of household source separated recyclable materials generated in the county are self-hauled to the transfer stations. The franchise haulers do not provide curbside collection of recyclable materials. However, the county supports the franchise haulers in their waste reduction, recycling and educational pursuits.

While the county continues to implement the programs outlined in Chapter 4 of the 2001 Plan, it reserves the right to choose which elements to implement and when; continue to use staff or contract out implementation; and to expand or decrease various elements of each program when necessary.

The goals and programs outlined in chapter 4 of the 2001 Plan were:

4.1 Primary Goal

The primary goal of public solid waste education is to get Skamania County to the 50% waste reduction and recycling goals of Washington State. The goal of public involvement is to get as many people as possible involved in the planning and implementation of solid waste objectives.

4.2 Secondary Goals and Objectives

1. Have the public involved in the decision-making processes in the planning and implementation of the Skamania Solid Waste Management Plan.
2. Help citizens feel their participation is a positive contribution to the solution of the solid waste problems.
3. Promote waste reduction and recycling as a way of life and not a painful chore.
4. Educate the public as to their role in waste reduction and making product choices that assist in reducing the waste stream.
5. Educate the residents in the methods of source separation of recyclables materials for delivery to the transfer stations, drop boxes, service clubs, or recycling markets.
6. Aspects of an educational program:
 - a. Provide information that is relevant to the needs of the people.
 - b. Provide specific information about behaviors the people can adopt to achieve goals.
 - c. Realize people get information from different sources.
 - d. Maintain an upbeat and positive attitude, capitalizing on the benefits of waste reduction and recycling.

4.3 Target Groups for Public Involvement and Education

1. All residents and age groups of the county.
2. Encourage public input in the SWAC meetings and in the planning process.
 - a. This should be people from various areas and groups in the county.
 - b. Have public involvement in the draft revisions of the plan either at the SWAC meetings or with their local government.
3. Target Groups for educational programs.
 - a. School teachers and students.
 - b. Residents that are recycling now.
 - c. People that are not reducing and recycling at the present time.
 - d. Audiences that would like to learn more about reduction and recycling.
 - e. Groups that attend regular meetings like service groups, granges, businessmen associations, PTA, etc.
 - f. Business and manufacturing interests through their management or community organizations.

4.4 Communications

Excellent communication between the public and the solid waste system is a crucial component to the success of the implementation of the solid waste management plan. It is important for the public to have ownership in the plan and its implementation. The way the public sees their role in waste reduction and recycling will be the key element in measuring success or failure. The people of Skamania County, each and every person, must see their role in the overall process of reduction and recycling. They need to understand the various systems of handling and hauling waste and its affect on them directly or indirectly. The public involvement and education will be an ongoing process and continue as a lifelong goal. This will be accomplished in a number of ways to be outlined:

4.5 Public Involvement

In the planning process and the actions of the county Solid Waste Advisory Committee (SWAC), the public is a key component. The public is invited and encouraged to attend meetings of the SWAC. The public is able to talk freely about any of the issues being discussed and any items they may wish to bring up. The various governmental agencies represented in this plan will have time to review the draft and final plan as well as have the option to conduct public hearings in the cities and the county commission. The Public Works Department and the Solid Waste Staff are available and willing to discuss any aspect of the plan or the pending implementations with any group or individual. Copies of the draft and final plans will be available to the public at Stevenson Community Library, City of North Bonneville, City of Stevenson and the Department of Public Works offices.

A. Survey-Questionnaire

One of the aspects of public involvement will be a survey to be handed out at the transfer stations and through mailings with the franchise hauler billings. The Public Works Department and the SWAC will develop this survey. The public will be invited to have input in the scope and specifics of this questionnaire. The survey will look at the present systems and programs in effect at this time. The trends in information dissemination will be assessed to find the best communication methods of reaching the people in each area of the county. The practices and future desires of the public will be assessed in the areas of waste reduction and recycling. From the survey, a best practices scenario can be established for solid waste planning, education, information dissemination, and implementation now and in the future.

B. Follow-up Questionnaire

In a period of eighteen months to two years, a follow up survey will be sent out to gain information as to how the programs are being conducted and how the public is participating. This follow up will give the Public Works Solid Waste Staff a means to assess programs and fine tune them for further implementation. The questionnaire will cover areas on communication and evaluation of the solid waste systems with a look to the past and an eye on the future.

Reference: Questionnaire A and B above:

1. Number of people - 40% to 50% of the residents of the county or between 3,500 and 4,500 residents directly or indirectly.
2. Percentages of reduction and recycling from these options. - This is not a direct percentage, but it should help in determining the preferred methods of informing and educating the public.
3. Frequency of Option - The initial survey will be conducted in the summer of 2014 and then a follow up survey in 18 to 24 months.
4. Starting Date - In the summer or fall of 2014.
5. Program Presenters - Solid Waste Staff and the SWAC will prepare the questionnaires. The transfer station operators and the franchise hauler will hand them out and they will be returned by mail or dropped off at one of the three transfer Facilities.
6. Cost of this option - The initial survey will be supported by the Public Works Solid Waste Divisions budget.

Year 1-6 \$1000.00 per year on a 75% grant

By Year 20 \$300.00 per year.

4.6 Education of the School Teachers and Students

The plan will be an active education program, which was started in the fall of 2002 in the public school districts in Skamania County. This was not a new program as some of the districts have very active recycling and reduction programs in process at that time. The education program has been an effort to get the information to the teachers and thus to children and give them an

opportunity to be part of the implementation process of waste reduction and recycling.

There are five school districts in Skamania County. They are 1). Washougal School District with an elementary school located on the western part of the county; 2). Mt. Pleasant School is on the western part of the county serving elementary students; 3). Skamania is in the west-central part of the county with students in the elementary grades; 4). Stevenson-Carson is located in the central area of the county and has two schools in Stevenson, those being Stevenson High School and Stevenson Elementary; in Carson there are two schools those being Wind River Middle School and Carson Elementary; and 5). Mill-A is located in the eastern part of the county and serves elementary students.

Information Clearinghouse

The information clearing house is an Ecology website (<http://ecyapps4/swic/default.aspx>) that has compiled numerous education programs with proven track records throughout the state into a database. The information clearinghouse allows a teacher to pick and choose which waste reduction education program is suitable for a situation and student needs. With this information, the teachers will be able to instruct their students in best practices for solid waste issues. The teachers will be able to make the lessons age and grade appropriate. The information or messages will be carried home to the student's families. The families will benefit from better methods of waste reduction and recycling.

School Programs

All three of the school districts in the county are presently conducting educational programs and are actively recycling. These programs are very successful, receiving good reports from the teachers and students. Some of the schools have expressed interest in composting their food waste and other organic waste generated at their facilities. They have asked the solid waste staff and the SWAC to help them with guidelines as how to proceed in new areas of waste reduction and recycling. It is felt the efforts of the school will carry over to the home and community. The students will be taught the principles that will be applied at school on a daily basis with successes reported to them. With an active program of reduction and recycling in the schools, the efforts should be noticed both in the school setting and in the homes of the students.

CHAPTER 5 – SOLID WASTE HANDLING METHODS AND SYSTEMS

5.1 Introduction

The 2013 Plan reflects the existing conditions in the county including the relocation of the Stevenson Transfer Station in 1992. The major priorities of the county are as follows:

- Waste Reduction
- Recycling
- Energy recovery, incineration, or landfill of separated waste
- Energy recovery, incineration, or landfill of mixed waste

The alternatives presented allow the county the opportunity to improve the system, remain flexible to new technologies, and reduce costs.

5.2 Solid Waste Handling Systems

Skamania County has primarily two handling systems, the transfer facilities and the private collection of solid waste by the franchise haulers.

The county transfer facilities are operated by the County Department of Public Works, specifically the Solid Waste Management Division (SWMD); and are financed by customer user fees. The facilities consist of a Transfer Station and Material Recovery Facility in Stevenson, Washington. Mt. Pleasant and Underwood Drop Box Facilities are located in the unincorporated areas.

The private franchise is the Skamania Sanitary Services Inc. and the Bingen Sanitary Services Inc. both of which are owned by Bill Hearn and operated under the permits from the Washington Utilities and Transportation Commission (WUTC).

5.2.1 The Stevenson Transfer Station

The Stevenson Transfer Station and Material Recovery Facility were both relocated in 1992 at a cost of approximately one million dollars. These Facilities represent the primary processing and transfer station for the county and are centrally located both geographically and by population. The Stevenson Transfer Station has the capability to accept waste brought in by private curbside solid waste collection services with compacted loads. It accepts self-hauled waste from both the public and commercial businesses. Each local customer's garbage is tipped into 5-yard bins located in the transfer station and then a forklift tips the waste into open top trailers for transfer from the site. Fifty-yard garbage containers from the end sites are directly tipped into the open top trailers. The refuse is then compacted into the open top transfer trailers by a backhoe. The facility operates in such a manner to optimize the payload for the transfer haul to the landfill. The landfill is approximately forty-one miles from the Stevenson site and requires three and a half hours for each round trip.

The Stevenson Transfer Station has the capacity to accept recyclable materials brought in by

private curbside recyclable material collection services; both source separated and commingled. Currently, a full spectrum of recyclable materials separated by commodity and self-hauled by the public is collected. The Material Recovery Facility also processes the materials transferred from the Underwood and Mt. Pleasant sites. At the Stevenson Material Recovery Facility there is located a semi-mechanized sorting line whereby the materials can be further separated and cleaned (residuals are removed). This provides for high quality recyclable materials that command top resale prices. Several sorted materials are baled and stored until enough material can fully load a 48' or 53' box van. Materials are then marketed and transport is scheduled.

As Material Recovery Facilities (MRF's) continue to reduce sorting costs and are sited within economical transport distances to markets, the county will continue to review these options. As MRF's become more competitive, it may soon be cost-effective to sell the materials unsorted (i.e. commingled) like ridged plastics are currently. Marketing source separated commingled recyclable materials is discussed below in Section 5.6.2; associated costs are discussed in 6.3.2.

Services provided at the transfer station:

The transfer station provides collection and compacts and prepares waste going to the landfill. The Stevenson facility has a larger system than the other two sites. Here the patrons deposit the waste into 5-yard bins where a County employee empties the bins strategically into the 48' open top trailers. Large loads of waste are tipped onto the lower tipping floor and then a backhoe pushes the waste into the 48' open top trailer. The waste destined for the landfill is then compacted into the 48' open top walking floor trailers with tipper legs and transferred to the North Wasco County Landfill.

In the future at each of the transfer sites, it is planned to replace the compactors with larger direct loading trailers to collect the waste and transport it to the landfill. This process will require less mechanical equipment and would relieve the system of costs related to break downs of the present compactor operations. The loading into the trailers will either be direct loading or have waste dumped on a tipping floor and loaded by a scoop or fork lift. With the tipping floor, it will allow the transfer operator to place the waste in the trailers with more even distribution.

Recycling activities include bins for source separated recyclable materials. In the Mt. Pleasant and Underwood sites the recyclable materials are collected and transferred to the Stevenson site. At the Stevenson site, the recyclable materials are sorted and prepared for markets. They are sorted in various quantities to get adequate volumes to gain a better market value. The recycling operation is under direction of the solid waste staff.

5.2.2 The Underwood and Mt. Pleasant Drop Box facilities

The Underwood and Mt. Pleasant Drop Box Facilities are both located approximately 25 miles from the Stevenson Transfer Facility. The drop box sites have 50-yard lidded containers in which the refuse is placed and compacted into. This process requires less mechanical equipment and relieves the system of costs related to break downs of the old compactor operations. The loading into the containers at the Mt. Pleasant Facility will be direct loading by patrons and compacted by a mini excavator for maximum capacity. The Underwood transfer facility utilizes a 5-yard tipping bin that is weighed and then tipped into a 50-yard container. Compaction of the refuse to maximum capacity is also done at this facility. Recycling activities include bins for source

separated recyclable materials. In the Mt. Pleasant and Underwood sites the recyclable materials are collected and transferred to the Stevenson site. At the Stevenson site, the recyclable materials are sorted and prepared for markets. They are sorted in various product streams to get adequate volumes to gain a better market value. The recycling operation is under direction of the solid waste staff. In the future it is intended to replace worn out 29 cu/yd sectional recycle containers with 50-yd lidded garbage containers with windows. These containers will enable the solid waste division to interchange all containers in its operation. The size increase will eliminate any void spaces in other compartments in the containers and increase transportation efficiency and lower costs. These interchangeable containers will also eliminate any dry runs from the end sites.

Composting Materials:

In the past composting materials have been collected at the transfer sites with some grinding conducted at the Stevenson site. With the problems to be discussed later in this plan, composting will not be conducted at the Stevenson transfer site.

Special Recyclable Materials:

Special recyclable materials have areas designated at the transfer stations for collection of large pieces of metal, white goods, tires, electronic waste, used motor oil, and antifreeze. When quantities of these items dictate, they are taken to recycling processing centers, picked up by mills or taken to applicable markets.

Sorting of mixed waste in the past has been done at the Stevenson site, but this system was found to be too expensive and labor intensive. At the Stevenson transfer site, the decision has been made to not conduct any separation of recyclable materials from the mixed waste stream once the waste is received at the transfer station.

Recommendations:

- Continue to collect waste at the Stevenson Transfer Facility and the Underwood and Mt. Pleasant Drop Box Facilities.
- Change operating equipment in the future from compactors to 50 cu/yd lidded containers or 53' reinforced open top possum belly trailers with tipper legs.
- Continue to provide areas and containers for recycling operations at the transfer and drop box facilities.
- Using the transfer station operators as a key person in educating the self-haulers as to best practices of reduction and recycling on a daily basis.
- To provide an alternative for organic materials that can be composted.
- Due to the cost and man power needs, no sorting of mixed waste will be conducted at the county transfer and drop box facilities.

5.2.3 Franchise Collection

Franchise collection is conducted by Skamania County Sanitary Service Inc. and Bingen Sanitary Service Inc., which are privately owned and operated. They are not associated with the County Public Works Department. The franchiser has 631 residential and 156 commercial customers in the county. They either haul waste directly to the North Wasco Landfill, Rabanco Landfill, Arlington Landfill or they haul it to the Stevenson site. Under the Bingen Sanitary

Service, this company serves the eastern area of the county and usually hauls this material directly to the landfill. Skamania County Sanitary Service serves the central and western area of the county and also hauls this material directly to the landfill.

The companies conduct no recycling activities for the customers. However, some of the customers do recycle using source separation and self haul their recyclable materials to county recycling centers or the Lions Club.

While the franchises' offer no curbside recycling collection to the households they serve, an alternative to provide for the collection of source separated recyclable materials can be considered in this Plan revision. The opportunity to implement curbside collection of recyclable materials is available to willing and able franchise haulers. The county may consider forming a collection district and/or a service level ordinance that includes the collection of recyclable materials.

Recommendations:

- To continue to work with the franchise hauler to get better service to residential and commercial customers in the county.
- To assist the franchise hauler in establishing recycling education programs for his customers.
- To work with the fee rate structure to get a similar rate for self hauling to the transfer stations and the fee charged by the franchise hauler for home pick up.
- To work with the franchise hauler in management of waste reduction and recycling for the betterment of the residents of the county and reduce the amount of material going to the landfill.
- Provide the opportunity for the haulers to implement curbside collection of recyclable materials.

5.3 Waste Disposal

There are no landfills located in Skamania County. All waste is transferred to Waste Connections North Wasco Landfill located near The Dalles, Oregon. The Skamania County Commission signed an agreement with Waste Connections for placement of the county's waste from 2011 until 2016. See Appendix C.

The previous plan discussed the possibility of locating an inert/demolition waste landfill within the county. As expressed in the Plan, "key consideration will be the cost of transportation and disposal, as well as environmental concerns." A discussion of the construction and operation of an in-county Municipal Solid Waste Landfill is included in Section 5.4. The \$66.67 per ton costs projected are described as being higher than existing nearby landfill disposal costs but not prohibitive.

In the past some inert building demolition has been placed in the county rock pit at Home Valley, but this site has been closed effective January 1, 1991. The Home Valley site was used, but never licensed, because it was under the 2,000-yard minimum required for mandated permitting. There are a few other private inert building demolition sites on private land in the county, but

none of these have permits with the State or the Environmental Health Department. To date, as far as the Public Works Staff knows, none of these sites are in excess of the 2,000-yard regulation.

Recommendations

- No siting of a solid waste landfill in Skamania County now or in the future.
- Siting of an inert/demolition waste landfill only after consideration with the necessary planning processes and all environmental concerns being met. If sited it will be permitted in accordance with current regulations.

5.4 Future Considerations

The existing conditions allow the county to operate at a fairly high level of service by providing each county customer with individual choices. While the solid waste services for residents are of relatively high quality, the total operating costs for the services are inordinately high. The primary reason for this is that the population in the county is comparatively low and volumes of municipal solid waste (MSW) received by the transfer stations is low. This is compounded by the fact that waste collected by the private haulers is not deposited at the Skamania County transfer station. The technical scenarios in this Plan provide the county with new management strategies. The cost comparison gives the county the ability to pick and choose its best management practices based on service levels, available markets, new or improved technologies and future needs.

It is not planned in the future to site a municipal solid waste landfill in Skamania County primarily because of the amount of rainfall and the present availability of landfills in Oregon and Washington within 40 to 90 miles driving one way. The agreement with Waste Connections will probably be extended in the future and other options may be available. Some options that may be considered are:

- Renewal or extension of the agreement with Waste Connections at the North Wasco Landfill.
- Looking into an agreement with Rabanco at the Klickitat County landfill near Roosevelt, Washington.
- Exploring the possibility of taking the county's waste to the Arlington, Oregon Landfill or the landfill located near Hermiston in Morrow County, Oregon.
- Exploring the use of river or rail transportation to haul the county's waste to any of the above sites.
- To explore hauling mixed waste to a processing center where the mixed waste can be mechanically separated to gain further reductions and recycling.
- Join with one or more of our neighboring counties in working on issues of waste reduction and recycling along with landfill options.

The key consideration in each of these possible proposals will be the costs of transportation and disposal as well as environmental concerns. As new methods and procedures are started or implemented, the county will evaluate each process and select the ones best meeting Skamania County's needs. With an eye to the future, the Public Works staff will work for better solutions to solve changing problems on a timely basis with good planning and active implementations.

Recommendations:

- Continue to explore options of exporting the county's solid waste.
- Explore the options and costs of new and varied methods of handling waste in the future.

5.5 Waste Reduction and Recycling

Throughout this Plan the goals stated in Chapter 70.95 RCW have been adopted by the county and should be kept in mind. They are:

- It is the State's goal to achieve a 50% recycling rate.
- Steps should be taken to make recycling at least as affordable and convenient to the ratepayer as mixed waste disposal.
- Source separation of waste must become a fundamental strategy of solid waste management. (Separation of recyclables from mixed waste).

This law also authorized the county to set its own goals in support of the State's goals. Each county is evaluated on progress in meeting the statewide goal based on such factors as local waste characteristics and market conditions.

5.5.1 Recycling

Presently the solid waste system is using source separated recycling programs. Emphasis on this has been placed on the residents of the county who bring their recyclables to one of three transfer stations. The State Planning Guidelines (Publication No. 10-07-005, February 2010) state, "that only municipal and commercial recyclables, including any organic wastes which are processed for recycling or composting can be counted in the statewide recycling totals."

While maintaining its inroads in education and the household self-hauled recycling program, the county can now emphasize commercial and industrial recycling programs. Although the franchise haulers do not presently offer collection of source separated materials they should be encouraged to do so. The alternatives presented allow for public and private partnerships to further the state goal. For example, the county through Ecology's Coordinated Prevention Grant (CPG) Program could fund recycling bins for households represented in this Plan, thereby relieving the haulers the burden of this cost.

5.5.2 Waste Reduction/ Waste Prevention

Waste reduction, the top priority in the state, relies heavily on education to remain a major component of the state's goal. This Plan encourages continuation of the waste reduction strategies developed in the previous plan. These implemented recommendations are:

- Use source separation as the primary method of recycling for the county.
- Conduct no mixed waste separation at the transfer stations.
- Continue to explore methods and mechanical processed for removing recyclables from the mixed waste stream. If material recovery facilities are opened in the future and it is cost effective to access, it should be considered as an alternative to hauling mixed waste to the landfill.
- To continue to work on a variety of efforts in waste reduction.

- Through education programs provide information to assist households and businesses in best management practices in waste reduction.

5.5.3 Local Program Options

The following is a quick list of local program options from Ecology's Guidelines for the Development of Local Solid Waste Management Plans and Plan Revisions (February 2010) available at: <https://fortress.wa.gov/ecy/publications/summarypages/1007005.html>. A brief discussion as to how reduction and recycling will affect the people and solid waste systems of Skamania County will follow using these guidelines. Each of these local options will be addressed as to the percentages of people affected and the estimates of the amount of reduction as well as costs associated to that option.

A. Public Education

Public education is a very important component of the plan. A program for residents of the county, in waste reduction, recycling and handling is under way with the key being source separation.

1. Number of People - all the residents in the County.
2. Percentages of reduction and recycling from this option.
 - Year 1-6 10% per year
 - By year 2033 50% over all.
3. Frequency of option - With an initial campaign later this year and then on at least a yearly basis.
 - Year 1-6 Once a year.
 - By year 2033 At least once a year.
4. The starting date will be the summer of 2001 and continuing.
5. Program Presenters - The Public Works Staff and SWAC.
6. Cost of this option - The cost of this program will be part of the Public Works Solid Waste Divisions budget. In the future the program costs could be a combination of county funds and implementation monies from Ecology.
 - Estimated costs for the public education program.
 - Year 1-6 \$3,000 to \$5,000 per year.
 - By year 2033 \$2,000 to \$5,000 per year.
 - Estimated staff education costs.
 - Year 1-6 \$1,000 to \$2,000 per year.
 - By year 2033 \$2,000 to \$5,000 per year.

B. School Curricula

The Washington State Solid Waste Information Clearinghouse is a valuable resource for educational programs and materials. It is a web-based database located at <https://fortress.wa.gov/ecy/swicpublic/>.

1. Number of Students served - 1,600 students from preschool to the 12th grade.
2. Percentage of reduction and recycling for this option. This estimate includes the carry over efforts of the student's education and assisting in making changes in their homes. This will also include the reduction and recycling efforts conducted on the daily operation at the schools.

Year 1-6 10% to 12%

By year 2033 12% to 15%

This option could reduce and recycle as much as 65% of the schools daily waste in three to five years,

3. Frequency of Option. - With kindergarten to the sixth grade, it would be conducted annually with a portion of the school curriculum given to reduction and recycling education, possibly in instruction units of a short period of fifteen to thirty minutes every couple of weeks for three to six weeks in duration. With the 7th - 12th grades at least once a year while stressing these principles in science and community problems classes. These efforts will be more concentrated with strategies developed for now and in the future. A key factor will be repetition of the messages throughout the school years.
4. Starting date - fall of 2001 and continuing Program presenter's - the teachers presenting the material to their students.
5. Cost of this option. - This will be a workshop with little or no cost to the teacher or public works staff. The program will then be taught by the teachers to their students. It will be possible for the county solid waste staff to assist the teachers in getting appropriate materials for their lessons.

C. **Commercial, Retail, and Industrial Education.**

This will be a component of the education program. The businesses are presently working on individual programs and if any technical assistance is necessary the solid waste staff will assist in any way possible. The solid waste staff is working with local business on plans for handling their waste while studying possible areas of reduction and recycling.

1. Number of businesses served - Between 100 and 200.
2. Percentage of reduction and recycling for this option. - As this element is estimated to be less than 20% of the present total waste stream it will be difficult to reduce it much further. However, in the future with new businesses and especially the businesses in tourism this volume will grow and the need to reduce and recycle will remain important.

Year 1-6 4% to 6% reduction

By year 2033 7% to 10% reduction

3. Frequency of this option - An initial strong effort in 2013 with the Washington

State and Skamania County information and educational programs. Then an annual effort is planned with ongoing assistance as needed. One future aspect of this program will be an initial survey for new businesses in planning for the various elements of reduction and recycling. The Public Works Solid Waste Staff will conduct this.

4. Starting Date - Summer or fall 2001 and continuing
5. Program presenters will be the Public Works Staff and the local business associations.
6. Cost of the program - Funding for this program will be shared by the Public Works budget if funding is available. In the future implementation monies should be used along with efforts of local businesses and business associations.

Year 1-6 \$500 to \$1,000 per year.

By year 2033 \$1,000 to \$3,000 per year.

D. Incentives – Recycling and Reduction

The waste disposal system is fully operational at the present time and will continue to be a part of planning in the future. One of the effective methods of educating the public is to show them the successes of their efforts in reduction by direct cost savings. Currently, the franchise hauler has a variable can rate, but the second can is cheaper than the first can. If a variable can rate were instituted with additional costs greater for second and third cans, the incentives would be for people to reduce and recycle. The cost to the waste system would be in reduced amounts of waste and less material going to the landfill thus decreased tipping revenue. The recycling rate would increase and as reported it would raise the cost of processing and transporting recyclables to market.

1. Number of people affected - 80% of the county or approximately 8,000 people.
2. Percentage of reduction and recycling from this option. - Of the people presently using the transfer stations it is estimated that 3/4 are actively recycling and following reduction activities. These residents are making up the majority of the 38.5% Countywide reduction and recycling effort at this time. With increased tipping fees and incentives in variable garbage rates, the reduction and recycling efforts should improve.

Year 1-6 7% to 10% increase in Reduction and Recycling.

By Year 20 15% to 30% increase in Reduction and Recycling.

3. Frequency of this option. - Ongoing with the initial changes being made in the near future and further changes as necessary.
4. Start Date - Summer 2001 and continuing
5. Program presenters - Public Works Staff, County Commission, and SWAC.
6. Cost of this program. - The costs will be covered in part by the disposal fees. With a changing rate structure, it could make the costs of going to the transfer station or having the franchise hauler pickup residential waste near the same.

Cost Estimates – The cost estimate will be hard to determine due to the decrease in tipping revenue and an increase in associated recycling costs. Although the recyclable products will bring in revenue, this revenue is dependent on the current market prices.

Year 1-6 Increase Countywide recycling rate 10% bi-annually.

By year 2033 Achieve a 50% countywide recycling Rate.

E. **Procurement Standards**

This is the direction of the private and governmental officials to bring about the change and the benefits to each of us. The County needs to follow these rules and regulation standards and lend support for State and Federal efforts.

1. Number of People - everyone in the County.
2. Percentage of reduction and recycling from this option. - This would depend on the items and types of products that the people are buying. Some estimates would be:

Year 1-6 2% to 5% reduction

By year 2033 7% overall reduction

3. Frequency of this option - Ongoing with support given for State and Federal efforts.
4. Date started - Summer 2002 and continuing in the future.
5. Program presenters - For the most part this will be State and Federal efforts with the local efforts providing support and dissemination of information.
6. Cost of this option. - This is hard to estimate as it requires changes to be made and then people must require a higher standard for the materials they purchase. The cost of the local option will be in educating and informing the public on a timely basis.

F. **On-Site and Off-Site Yard waste, Brush, and Land Clearing Debris Composting**

This is a key component as yard and garden waste makes up 13.1% of the waste stream in 1990. The County Commission has decided for the present, the solid waste system will not conduct on site composting at any of the three transfer sites. One of the reasons for this decision is the amount of annual rainfall of 70 to 100 inches. This would cause problems in the control of leachate unless the composting operation was covered. The leachate could possibly be controlled by recirculation if properly managed. However, the County Commission does not wish to conduct this operation at this time because it is not cost effective. Another consideration is the disposal of the composted material. There is not a profitable market for composted material and the problem of quality control leaves the County with a legal liability. Because of these reasons, yard and garden debris have been hauled to the landfill beginning in early 1991. In 2009, the Tri-County Hazardous Waste and Recycling Program covering Hood River, Wasco and Sherman Counties in

Oregon had Cascadia Consulting Group conduct an Organics inventory and management study. This study included Skamania County and Klickitat County in their findings (attachment #1 and #2). Some resulting options being considered and plan being formulated for the future include:

1. **Education program** - Through the education program and other incentives, it is recommended composting be done in the backyard. This would be a reduction of the materials hauled to the landfill plus additional saving in not handling this material at the transfer stations. This program can be carried out with pamphlets and hands-on training or demonstrations during the public education campaign.

The preferred option for yard and garden materials is backyard composting. The methods and benefits of using composting will be; 'How To Do' in setting up a backyard composting operation, use of mulching lawn mowers, and use of chippers to reduce limbs and branches etc. as well as how to use the finished product to the benefit of the soil.
2. **Hauling to a composting operation** - A recent consideration in this area is transporting yard and garden debris to a composting operation locally. The County would charge a minimal fee per yard to local patrons and then would take the material to a local composting facility. The fee would cover all costs associated with the handling and transport of the material to the composting facility. Here the material would be composted and prepared for market. The savings would be the material being recycled or reused. This material would not take up space in the contracted landfill. Some clean building debris could be included in this option including dry wall or sheet rock.
3. **Used for Hog Fuel** - In the near future there could be a market for hog fuel within a 30 miles commute, one way from Stevenson. This market will pay between \$10 and \$50 dollars per dry ton of fuel depending on its BTU factor. If some of the yard and garden debris would meet these standards, this possibility will be used. It is estimated that clean building debris could be included in this option. The operation would have to have a County employee monitor the material that is dropped off, due to the high probability of contamination.

Cost Option A - Ban on yard and garden debris.

Year 1-6 13% or 426.5 tons to the landfill at a net loss of \$64,000 per year in revenue.
By year 2033 Over all reduction of 23% to 35% of the total waste stream.

Cost Option B - Hauling yard and garden debris to a composting operation in Portland, Oregon.

Year 1-6 13% or greater saving in material going to the landfill. Some cost saving may be reached because the cost of disposal at the landfill and composting operation are about the same. The saving would be in avoided costs.
By year 2033 Reduction of material bound to the landfill by 23% to 35%.

Cost Option C - Hauling and selling this material for hog fuel.

Year 1-6 5% to 10% or greater savings. (Possibility of chipping being required before hauling) Recovered some of the costs of this option.

By year 2033 Reduction of 23% to 35% with some cost recovered.

Cost Option D - Hauling Debris to the Landfill.

Year 1-6 Additional costs of paying for materials placed in the landfill

By year 2033 Decreased costs per ton to the solid waste system because of the increased volumes of this material.

G. & H. Product Packaging Prohibitions and Deposits

The regulation and changes will be monitored. At the present time the state has preempted county authority to ban products or product packaging, according to RCW 70.95C.100. As these regulations change and are brought to the public, the local efforts will be stressed.

1. Number of people - 40% to 50% of the people in the County.
2. Percentage of reduction and recycling
Year 1-6 3% to 5% reduction
By year 2033 5% to 10% reduction
3. Frequency of option - Education and ongoing information on these products and smart shopping on the part of the consumer.
4. Starting Date - Summer of 2002 and continuing
5. Program presenters - Mainly State and Federal efforts with the messages being disseminated locally in the education campaign.
6. Cost of this option - The local cost will be in the educational program and providing information on a timely basis. The information has to help change the attitudes and buying habits of the public.
Year 1-6 Reduction of materials going to the landfill with educational costs of \$8,000 per year.
By year 2033 Reduction of material going to the landfill and additional costs of \$8,500 per year.

I. Product Use and Reuse Standards

The role of the solid waste staff in this area will be to educate and assist in best management practices. People will be encouraged to buy durable goods and/or recyclable goods.

J. Encouragement of State and/or Federal Programs

The role of the local governments and solid waste staffs will be to follow the programs and look at methods and processes to assist these programs both in design and

implementation. The cost and implementation will be similar to G & H above.

K. Waste Exchanges

At the present time, this is a new idea and some problems need to be worked out. The question of liability has limited the waste exchange program. The operational procedures of the transfer stations will not allow the public to remove items from the transfer station. One way this could be handled would be to encourage people to exchange items before they enter the waste stream handling system. People could use the services of the Lions Club, Goodwill, Flea Markets, garage sales etc. These services would collect or resale items before they enter the waste stream. If people have items that have secondary or recycling uses, they could advertise, sell, or give them away. A swap meet may be a good option.

In the area of household toxic waste i.e. paint, thinners, household chemicals, fertilizers, and sprays etc., various methods are being considered in ways people could take these items from the location of the household toxic waste collections day. If funding is available then the household collection day will be held once a year in July. It is the responsibility of the solid waste staff at this time.

1. Number of people affected - 50% to 60% of the County.
2. Percentage of reduction and recycling - This could be significant as these elements could be used rather than being placed in the landfill.
Year 1-6 3% to 5% reduction
By year 2033 5% to 7% reduction
3. Frequency of this option - This will be ongoing but exchange days could be staged only once a year. The use of advertisements in the local newspaper could be effective.
4. Starting Date - Summer 2013 or later.
5. Program presenters - This could be service clubs having a trading or exchange day or conducted on an individual basis. On household toxic waste this could be done on the annual collection day.
6. Cost of this program - The saving of placement of this waste in the landfill will be greater than the costs. The costs could be covered by the services clubs, educational programs or future implementations funds.
Year 1-6 \$ 500 per year
By year 2033 \$1,000 per year

L. In-House Programs

The governments need to take a leading role by setting the examples in the areas of reduction and recycling. These programs are being used in the County and City governments at the present time. These in-house programs need to be where the public can see them and the results reported. Likewise, if these programs are good for the

government, they need to be encouraged in the private sector. Some of the elements of the Washington State Government Options to Landfill Disposal (G.O.L.D.) Manual could be implemented in these in-house programs.

1. People affected - Directly 20% to 30% of the people in the County.
Indirectly as many as 50% seeing the benefit of this program.
2. Percentage of reduction and recycling - In the total waste stream from offices it is estimated paper is between 40% and 50% which all could be source separated and recycled.
Year 1-6 Reduction of 95% paper from offices and this could be a saving of 4% to 5% of the total waste stream.
By year 20 Reduction of 100% of the paper and a total saving of 7% of the total waste stream.
3. Frequency of this option - Initial educational program coupled with a reward and recognition for those taking part. This will be an ongoing program and in the implementation programs in the future.
4. Starting Date – summer 2002 and continuing
5. Program presenters - The supervisors in each governmental agency.
6. Cost of this program - The cost of implementation of this option is very small and the rewards are great. With the purchase of a couple of bags most of the office papers can be recycled. The implementation of this program will give the workers a feeling of doing their part.
Year 1-6 Reduction of material going to the landfill and a annual cost of about \$10,000 per year for labor.
By year 2033 Greater reductions and costs of \$15,000 per year.

M. **Awards and Public Recognitions**

As part of the educational program, it will be important to inform the public of their efforts and provide them with a report card on waste reduction and recycling. The county could implement signs to show the recyclers yearly recycling amounts and percentage increase over previous years as encouragement. This will be at various levels and it will be valuable to encourage others to participate. Costs and implementation will be similar to items G & H above.

As described above, the percentages, by which the reduction and recycling programs will affect the total waste stream volumes (more clearly described in the 1992 Pacific County Solid Waste Management Plan), are included here to augment waste stream reduction forecasts - as follows:

- Programs "A" and "B" combined: Public Education and School Curricula 1-3%.
- Program 'F': Back Yard Composting, 1-3%.
- All local programs should be continued.

5.5.4 State and Federal Program Options

The County supports the State's Solid Waste Advisory Committees recommendations regarding statewide consistency relating to permitting of recycling facilities as a way to reduce costs and to expedite the transition of a material from the waste stream to use as a commodity. The County supports efforts by the U.S. Environmental Protection Agency to exclude recyclable materials from the definition of solid waste (hazardous waste).

State Solid Waste Plan (Beyond Waste)

Some recommendations from the Washington State Solid Waste Plan, also known as the Beyond Waste Plan, are included below to provide potential options for future programs. These recommendations and the Beyond Waste Plan in general strive to provide statewide guidance for reducing the use of toxic substances, decreasing waste generation, recycling more materials, and properly managing any wastes that remain. This will not be easy. Some actions will require legislative authorization or new funding sources. Some will require new partnerships between the private sector, government, and other organizations. Some actions will begin sooner than others will. Some will produce results quickly, while others will take longer to achieve.

Partnerships are the key to achieving the goals of Beyond Waste. Governments at all levels, the private and non-profit sectors, academia, and communities will need to work together to implement the plan's recommendations.

The following is a partial list (from the state plan) of recommendations that may be applicable to Skamania County:

Recommendation IND 13 — Support product stewardship legislation (including framework and/or individual product legislation) and Environmentally Preferable Purchasing (EPP) legislation as recommended by the Governor's Climate Action Team.

Product stewardship and EPP legislation encourage a more closed-loop recycling system, especially for products that are more difficult to recycle. Legislation will keep products and toxics out of the waste stream and storm-water. Visit the Climate Action Team homepage at www.ecy.wa.gov/climatechange/2008CAT_overview.htm.

Milestone IND N: A statewide product stewardship framework is in place and three or more new products are included in that framework. Alternatively, comparable product stewardship legislation is in place for individual products.

Milestone IND O: Legislation is modified to support more environmentally preferable purchasing, a program to track EPP purchases is in place, and sales of EPP goods and services are increasing. (Same as Milestone MRW I)

Recommendation IND 14 — Educate the public and businesses on prevention, proper use, storage, and disposal of hazardous products and wastes. Encourage safer alternatives to minimize toxic threats, especially to vulnerable populations. (Same as MRW 11)

Products are a significant source for toxic chemicals getting into the environment generally and Puget Sound specifically. Education is needed to reduce these risks.

- Work toward a statewide effort to maximize the effectiveness of education efforts, with consistent messages across jurisdictions.
- Provide the public with information on choosing the safest product to meet their needs, and to handle it properly. This could include product composition and appropriate third-party certification systems. This will help the public drive demand for EPP products.

Milestone IND P: Statewide education to minimize toxic threats is in place and complements local and regional efforts. (Same as MRW M)

Milestone IND Q: Fewer toxic products are purchased, misused, and disposed of improperly. The public is more aware of which chemicals are in products. (Same as MRW N)

Recommendation MRW 2 — Reduce threats from mercury. (Also relates to Industries Initiative)

Help reduce and eliminate mercury by supporting and implementing the Washington State Mercury Chemical Action Plan (WSMCAP). WSMCAP, part of a statewide long-term strategy for eliminating persistent bioaccumulative toxins, or PBTs, includes actions to decrease mercury from all sources. Some significant sources of mercury are in the moderate-risk waste arena. Addressing them is crucial to the success of the overall action plan. Specific actions that support the goals of the WSMCAP include technical assistance to businesses, education to businesses, households, and schools, and supporting a mercury collection, repository, and recycling infrastructure. We need to build on the growing momentum for product stewardship for mercury. This will result in long-term reductions of mercury in products and will reduce improper disposal of mercury-containing products and wastes.

Milestone MRW B: Product stewardship systems for fluorescent and other mercury-containing lamps, mercury thermostats, and other mercury-containing devices are in place. Mercury in biosolids continues to diminish.

Milestone IND R: The Washington State Mercury Plan has been fully implemented for hospitals, auto switches, and lamps. A national repository for mercury is in place, resulting in significantly less mercury in the environment.

Recommendation MRW 7 — Implement and promote Environmentally Preferable Purchasing at state and local governments and in institutional settings, with Ecology leading by example. Support the Climate Action Team proposals and other initiatives.

Government will lead by example in the development and implementation of environmentally preferable purchasing (EPP) policies and practices. Actions to support this include:

- Convene an intergovernmental workgroup to assess progress on EPP practices, review state and local purchasing laws and regulations, and identify barriers to environmentally preferable purchasing.
- Recommend changes to laws, regulations, and practices to agencies and state legislature as needed.
- Increase technical assistance to state grantees and state and local agencies, which will result in greater promotion and sales of EPP goods and services.

- Collaborate with local governments to advance EPP.
- Address challenges with measuring progress and purchases of EPP.

Milestone MRW I: Legislation is modified to support more environmentally preferable purchasing, a program to track EPP purchases is in place, and sales of EPP goods and services are increasing. (Same as IND O)

Recommendation MRW 8 — Ensure MRW and hazardous substances are regulated and managed according to hazards, toxicity, and risk.

Develop a long-term strategy to evaluate and, if needed, modify environmental laws and regulations that govern MRW. Analyze various approaches, including product-based preventive approaches, for addressing threats from MRW. The overall goal is to move towards prevention of toxics and waste. The path for reaching this goal is not yet clear. The work within this, and other related recommendations, will help identify the best path. The strategy will need to:

- Provide more incentive for the reduction of target risk factors, such as toxicity, mobility, and persistence, and ensure that wastes that exhibit these target risk factors are subject to the highest level of care the regulatory system affords, possibly regardless of quantity.
- Move Washington to a more comprehensive regulatory system that removes barriers and provides incentives to reduce the same target risk factors associated with products that contain hazardous substances.
- Analyze the effect of larger, prevention-focused system-change efforts on the MRW regulatory structure, and the need for smaller regulatory changes. The larger systemic efforts include a product stewardship framework, using the PBT and the Children's Safe Products Act chemical lists, and potential statutory adjustments. Also, use information on MRW threats in Washington State, gained from studies done as proposed in Recommendation MRW 12.
- Look for ways to manage less-hazardous waste in a more cost-effective manner.

Milestone MRW J: Ecology staff has researched regulatory change strategies for preventing threats from MRW and hazardous substances. The agency is moving in the recommended direction. Along with Ecology, local governments focus on preventing threats from MRW.

Recommendation MRW 9 — Support full implementation of local hazardous waste plans.

Encourage all local jurisdictions to have current hazardous waste management plans and to implement fully the six required elements of local hazardous waste plans through the following actions:

- Prepare a status report detailing statewide implementation.
- Develop ways to use the existing MRW collection infrastructure to support prevention, product stewardship, and additional closed-loop recycling efforts.
- Utilize the revised local hazardous waste planning guidelines that more completely reflect the Beyond Waste goals and vision for the future.
- Provide assistance to local jurisdictions for plan updates and implementation.
- Provide for regular review of local hazardous waste programs.

Milestone MRW K: Local hazardous waste plans are up to date and being fully implemented in accordance with Chapter 70.105 RCW and the new local hazardous waste planning guidelines. Full implementation includes all six required program elements:

1. Public education
2. Business technical assistance
3. HHW collection
4. CESQG collection assistance
5. Enforcement
6. Used oil collection and education

Recommendation MRW 10 — Ensure businesses and facilities handling MRW comply with environmental laws and regulations. Encourage as much reuse and recycling of MRW as possible.

Evaluate the existing compliance strategy, and create a plan for strengthening it. Consider:

- Providing technical assistance on a system-wide basis.
- Increasing use of Environmental Management Systems.
- Ensuring consistency with local hazardous waste plans.
- Using regulations to encourage additional reuse and recycling.
- Increasing focus on and encouraging the prevention of MRW wherever possible.
- Ensuring safe management of today's hazardous waste, which, if mismanaged, gets into soil and water.

Milestone MRW L: MRW facilities, including treatment, storage, and disposal facilities separately handling MRW, comply with Chapter 173-350 WAC. The facilities reuse or recycle an increasing proportion of MRW.

Recommendation MRW 11 — Educate the public and businesses on prevention, proper use, storage, and disposal of hazardous products and wastes. Encourage safer alternatives to minimize toxic threats, especially to vulnerable populations. (Same as IND 14)

Products are a significant source for toxic chemicals getting into the environment generally and Puget Sound specifically. Education is needed to reduce these risks.

- Work toward a statewide effort to maximize the effectiveness of education efforts, with consistent messages across jurisdictions.
- Provide the public with information on choosing the safest product to meet their needs, and to handle it properly. This could include product composition and appropriate third-party certification systems. This will help the public drive demand for EPP products.

Milestone MRW M: Statewide education that minimizes toxic threats is in place and complements local and regional efforts. (Same as IND P)

Milestone MRW N: Fewer toxic products are purchased, misused, and disposed of improperly. The public is more aware of what chemicals are in products. (Same as IND Q)

Recommendation ORG 1 — Lead by example in government.

Government will lead by example both through organics recovery programs as well as through the purchase and use of more recycled organic products. Specifically, governments will:

- Maximize procurement of recycled organic products and use of products that do not lead

- to contamination of organic materials.
- Establish programs and clear guidelines on food waste prevention at residential, commercial, and institutional levels.
- Include compost as a component of Environmentally Preferable Purchasing, and Integrated Pest Management programs.
- Identify incentives to increase organic management programs at state and local government agencies, and institutions.
- Advertise success of organics recycling projects.

Milestone ORG E: Most people (government, business, and the public) understand the benefits of healthy soils.

Milestone ORG J: Organics recovery (including landscaping and food scraps) occurs in 50 percent of all state and local government buildings and institutions, including the Capitol Campus. State and local agencies and institutions are required to use compost as a landscape management tool to reduce water and pesticide use.

Milestone ORG M: Food waste prevention is a focus of state and local government. This includes edible food recovery for redistribution to organizations serving hungry people and food waste prevention programs at the residential, commercial, and institutional level. Work will be supported by a guidance document developed by Ecology.

Recommendation ORG 2 — Increase residential and commercial organics recovery programs.

Expand and increase organics recovery programs in residential and commercial sectors, recognizing that capacity for processing organics needs to grow with increased recovery, and opportunities differ between rural and urban areas of the state. Needed actions include:

- Incorporate Organics Materials Initiative goals into local-jurisdiction solid waste management plans.
- Assess yard debris and food scrap recycling infrastructure in large municipalities.
- Align the diverse interests of stakeholders to create a beneficial use hierarchy for recycled organic materials. Maintain core values of reducing, reusing and recycling materials.
- Provide “tools” (such as education materials and technical assistance) to coordinators of home compost programs.
- Identify incentives for local governments to increase organics collection and processing capacity.
- Promote the purchase of recycled organic products through “healthy soil” education, to create stable markets for recycled organics.
- Remove regulatory barriers to promote increased organics processing capacity.
- Support new processing technologies that provide a variety of organics recycling opportunities.
- Expand or implement home composting programs in every county.
- Work with local haulers and transfer stations to provide organics collection and diversion options.
- Advertise success of model residential and commercial organics recovery projects.

Milestone ORG B: Effective incentives for organics recycling are identified and pursued.

Milestone ORG C: Home composting programs are active and successful in every county.

Milestone ORG E: Most people (government, business, and the public) understand the benefits of healthy soils.

Milestone ORG F: Statutory and regulatory barriers to closed-loop organics recycling are addressed.

Milestone ORG G: A beneficial use hierarchy is created for residual organic material processing and uses.

Milestone ORG H: Soil carbon sequestration, using recycled organic materials, has increased based on research recommendations.

Milestone ORG I: Technical assistance, research, and/or capital expense funds support the development of at least two biomass-to-energy and biomass-to-fuel and co-products “organic refinery” projects.

Milestone ORG K: Statewide residential and commercial recycling of organics is standard practice, supported by efficient collection and increased infrastructure. Large municipalities offer food waste collection programs to residential and commercial customers.

Recommendation GB 3 — Provide incentives that encourage green design, construction, and deconstruction and begin removing disincentives.

If green building is to become a mainstream practice, incentives must be available to developers, contractors, and homeowners to defray some of the up-front costs of building green.

- Utilities, governments, and others create and promote incentives.
- Staff continues to identify federal, state, and local incentives already in place, and develop new incentives. Effective incentive programs may include rebates, fast-track permitting, and tax cuts.

Washington’s regulatory climate should encourage, not simply accommodate, green building.

- Continue to identify and remove regulatory barriers that prohibit and/or contradict green building standards in the State Building Code, local building codes and other applicable state regulations, specifically those related to land use, zoning, stormwater management, water resources, and shoreline protection.

Milestone GB A: Washington continues to be a leader in green building.

Milestone GB C: Government continues to identify and remove regulatory barriers to green building.

Milestone GB G: At least five buildings are built to the Living Building standard in Washington.

Milestone GB H: At least 50 percent of all local governments in Washington have adopted green building policies and/or incentives.

Milestone GB J: Authorities adopt policies that require low-impact (LID) strategies to be included in building design and maintenance.

Recommendation GB 4 — Expand capacity and markets for reusing and recycling construction and demolition materials.

There is a lack of sufficient reuse and recycling infrastructure statewide. The next five years of Beyond Waste implementation will work on expanding these options.

- Identify places where additional capacity is needed for reuse and recycling of building materials, and begin planning to provide it.
- Initiate an outreach effort to contractors not currently building green to determine what needs to be in place (such as incentives or infrastructure) for them to implement job-site recycling programs.
- Continue to build markets for salvaged and recycled building materials.
- Promote reuse of existing building stock as an important waste reduction strategy.

In addition to recycling, it is important to divert as much construction and demolition debris from the waste stream as possible. Significant amounts of construction waste currently sent to a landfill or recycled could be re-used. Place continued emphasis on reuse and salvage. There are a number of deconstruction and salvage businesses in Washington. Residents across the state should have easy access to these organizations.

Milestone GB D: Ten percent of all certified green building projects achieve credits for using existing building stock or salvaged materials, and/or at least 75 percent waste diversion during construction.

Recommendation GB 6 — Increase awareness, knowledge, and access to green building resources.

Continue to promote the expansion of green building practices statewide through education and outreach.

Teach green design and green building. Students need knowledge of and easy access to green educational options prior to choosing their secondary education paths. Washington is a national leader in green building education and offers multiple courses in trade schools and colleges specific to green building practices, but there is room for more. The building sector promises to provide a platform for thousands of green jobs in Washington State.

Additionally, work to ensure Washington residents are familiar with and supportive of green building practices in their communities.

Milestone GB A: Washington continues to be a leader in green building.

Milestone GB B: All new state-funded buildings continue to meet or exceed green building requirements.

Milestone GB E: Green buildings occupy 15 percent of the total market share for new construction in Washington.

Milestone GB F: Washington offers degree and certificate programs in green building-related trades statewide.

Milestone GB G: At least five buildings are built to the Living Building standard in Washington.

Milestone GB K: Energy use in public buildings meets or exceeds Architecture 2003 goals.

Recommendation DATA 2 — Update and review existing indicators on an annual basis. Develop and implement an evaluation process for all working indicators. Eliminate non-useful, non-viable measures, and add potential new measures.

Every year, Ecology will review the indicators in the Progress Report to determine their relevance to initiatives as well as the plan recommendations and milestones. At least every five years, Ecology and its partners will fully evaluate the indicators to determine whether they are still adequately answering key questions on Beyond Waste progress or whether we need new or different indicators.

As part of the evaluation process, Ecology and its partners will:

- Discuss efforts made to date on closing data gaps such as the lack of good data on small-volume hazardous materials purchased, used, and disposed.
- Explain what has been done to increase the effectiveness of existing data-collection efforts.

Milestone DATA C: An evaluation process and recommendations for existing indicators are in place.

To implement any of these recommendations or portions of same, the county should work closely with the Ecology for assistance.

5.6 Other Options and Considerations

5.6.1 Urban and Rural Designations to Establish Minimum Recycling Levels

The rationale for designating the County as rural remains the same, providing the best level of service to the County residents for the least amount of cost. However when considering the formation of collection and/or disposal districts, or service level ordinances, grounds to consider these geographical areas urban should be reassessed.

5.6.2 Designation of Recyclable Materials

The collection and separation of recyclables at the Stevenson Transfer Facility, Mt. Pleasant and Underwood Drop box facilities are done by their patrons. At the facilities patrons can recycle the following materials: Cardboard and brown paper sacks, newspaper and magazines, mixed paper, green glass, clear glass, brown glass, tin cans, aluminum cans, all types of rigid plastic, scrap iron, tires, e-waste and refrigerators. When the recycle containers are full of the material to be recycled, they are either taken to the Stevenson Material Recycling Facility (MRF) for further processing and bailing or directly to the buyers for processing depending on the material.

Currently there are numerous companies that will buy recycled material from the County, but it has been determined that by selling directly to the mills, a higher per ton rate is achieved and the mills provide transport at no cost to the County. The County schedules pick-up of these products and when the truck and trailer arrives the County loads it with a forklift to the desired weight that the driver specifies. Products that are too labor intensive to process are shipped loose to the processing centers in Portland. These products include rigid plastics and glass materials and are transported to market in 50 yard containers by truck. The market prices for all recyclable goods very month to month depending on world markets and buyer prices should be compared regularly to insure maximize profitability.

5.6.3 Modifying the List of Designated Recyclable Materials

If the county determines, due to market conditions and availability of recycling options, that a recycle stream is cost prohibitive to continue to recycle, then the county could eliminate that recycle stream at its choosing. On the other hand, if new technologies or recyclable materials become available and are not cost restrictive, the County may implement collection programs for them.

The 2001 Plan discussed commingled waste and future considerations thereof. Skamania County is no longer piloting the marketing of commingled recyclable materials. Non-solicited proposals were received by the Solid Waste Department from two firms that process recyclable materials, one from Longview and one from Portland. The Longview firm proposed to collect the materials at Stevenson Transfer Station with charges to the County estimated to range between \$40 - 50 per ton. The Portland firm proposed receiving the materials at its Portland site, charging \$10 per ton for the material. Both these proposals could possibly be improved with negotiations.

5.7 Formation of Special Districts

Included as part of this discussion is the collection of commercial and industrial wastes; and the generation of revenues needed to manage and dispose of wastes. Formation of disposal or collection districts could afford the County certain elements of control not presently held. These include the ability to impose certain levels of service such as mandatory collection and to set up a separate taxing authority for the district. Appendix I contains a comprehensive analysis of the subject written by the law firm of Heller Ehrmann White and McAuliffe. The following is an encapsulation of the report.

5.7.1 Solid Waste Collection District

- Allows requiring mandatory collection under certain conditions, namely to protect public health.
- Allows counties to provide collection service if no qualified collection companies are available to perform the service.
- Does not give the counties authority to assess new taxes or fees.
- Must have an inter-local agreement with any incorporated city or town to be included in the district.
- Public hearings are required prior to the formation of a district.

5.7.2 Solid Waste Disposal District

- Defined as a "quasi-municipal corporation" for the purpose of providing and funding solid waste disposal districts.
- Allows for collecting fees, and assessing taxes, including excise taxes, for solid waste disposal.
- Can assess annual levies with voter approval.
- Allows counties to formulate flow control ordinances requiring disposal at county facilities (transfer stations), however this is a constitutional legal issue and the courts have overturned many flow control ordinances.
- Include this discussion in an approved solid waste plan.
- Public hearings are required prior to the formation of the district.

The opportunity exists for the incorporated cities in the County to contract out for service or provide its own collection service. While the existing haulers have explicit rights to continue, a city may notify the hauler of its intentions and wait out the prescribed duration, at the end of which period they may establish their own collection service. Cities also have the option to buy-out the existing collection service, with mutual consent at any time. A city that contracts or provides its own collection service can flow control its wastes to the county facility of its choice.

The same difficult decisions and economic impacts prevail in both urban and rural unincorporated neighborhoods. Therefore, the County would prefer to see State law changed to allow counties to have the same opportunities afforded cities in managing solid waste issues to meet State goals.

5.8 Collection

5.8.1 Franchise Hauler

It is currently reported that the franchise haulers serve the following number of customers by type:

Table 5-1: Number of Customers by Franchise Hauler

Collection Company	# Residential	# Commercial
Skamania Sanitary	1331	244
Bingen Garbage*	215	109
Total	1546	353

*Numbers reflect Bingen Garbage customers in Skamania County only (Bingen also serves Klickitat County).

5.8.2 Projected Collection Needs

Implementing a Collection District could double or triple the number of households now served by the franchise haulers. Including a service level ordinance for recycling and depending on the type of curbside recycling collection service provided, could increase the rolling stock of the haulers or increase the number of routes. Cities that contract out collection would need to initiate proceedings as prescribed by statute. Population increase in geographical proximity to existing transfer stations could make them invaluable assets in the long term.

5.8.3 Transfer Stations

During the construction of the Stevenson Transfer Station, Skamania Sanitary revised its rates according to WUTC regulations. This allowed the franchise to export waste directly out of the County during the construction period. Since the reopening of the Stevenson facility, neither franchise hauler has used the County's waste transfer system. While the conflagration over flow control rages, the County is concerned with liability issues for wastes generated under authority of this management plan that are disposed of in known and unknown solid waste systems.

The county, also by authority of state law and approved and partially funded by Ecology has constructed and is operating a fully permitted transfer system that:

- Is capable of and has the capacity to handle all collected and self-hauled wastes the County will generate over the next 20 years;
- According to agreements with North Wasco Landfill management, the landfill has capacity to dispose of these wastes during that same time period; and
- Includes liability agreements with the disposal facility.

The County should be concerned over liability issues when only 40 percent of the estimated total waste stream can be accounted for. Similarly there is a question as to the liability of the hauler who cannot account for the disposal of wastes generated in Skamania County. An incorporated area may also have liability regarding disposal of its solid waste.

All waste generated in the county should be processed under county management whether the facilities are operated in a public or private mode. This would relieve the Cities and the county of undue concerns over liabilities, and more importantly protect human health and the environment by controlling the disposal of waste to a permitted, county contracted landfill.

5.8.4 Transfer Station Tipping Fees

The basic fee at the three county transfer stations is \$150 per ton plus a \$5 use fee. Taking into account the factors facing the county, while the fee is high, it is not unreasonably high. Following are comparable rates of other cities and counties in Washington State:

Table 5-2: Comparable Tipping Fees from other Cities and Counties

Cities and Counties	Tip Fee
Centralia, WA	\$82
Jefferson County	\$110
King County	\$109
Lakewood, WA	\$123
Olympia, WA	\$119
Pacific County	\$114
Pierce County	\$123
Seattle, WA	\$145
Spokane, WA	\$104
Tacoma, WA	\$115
Wahkiakum County	\$140
San Juan County	\$225

As previously stated, one of the biggest factors influencing MSW costs is the low MSW receipts at the transfer stations. At current county tipping fees, the county would benefit from receipt of all the MSW it can handle.

5.9 Enforcement

Skamania County in conjunction with the many agencies sharing enforcement responsibilities should determine the probable impacts to human health and the environment occurring due to the lack of control over approximately 60% of the estimated total waste generated in the Cities and County. Currently there are no means of surveillance and control of illegal solid waste disposal activities in the County.

5.10 Administration

Joint public/private partnerships should be administered as part of this plan's findings, strategies and recommendations.

5.11 Other

Recent reports reveal health risks associated with the processing and recovery of infectious wastes. Assurances should be made that permitted facilities are using proper handling techniques for County generated wastes.

Skamania County does collect but does not process medical/infectious waste, which is known as red bag waste. The medical and health offices are contracting with a licensed medical waste disposal company that provides pickup service.

The county has a sharps disposal program in place. The public may bring a legal sharps container to any of the transfer and drop box sites and dispose of their sharps container. The collected sharps containers are stored separately. At the Stevenson transfer facility the sharps containers are placed in a transport container with liner. The county has contracted with a licensed medical waste disposal company that provides pickup service on a bi-annual schedule.

CHAPTER 6 – EXISTING COSTS AND ESTIMATED OPERATING COSTS FOR OPTIONAL OPERATING SCENARIOS

6-1 Existing Total Solid Waste Operation Costs

It is the goal of the County to make the solid waste system self-supporting through its revenues. This chapter presents various optional operating scenarios, which are prioritized numerically, that could help achieve this goal. In past years, the County Commissioners have provided funds to the Solid Waste Department from Federal payments. This accounted for about 35% of the revenue required to operate the Transfer and Drop Box Facilities. This loss of revenue required the Public Works Department to find alternate funding to keep these sites open. Thus the \$5 transaction/user fee was implemented in November 2011. This fee gave the Solid Waste Division the ability to keep its current level of services. If it is determined that the current funding is not adequate to provide for the current level of services provided by the County, then several options are available.

After a detailed review of the 2012 operation, it has been determined that the current disposal fees are just adequate enough to provide funding for the core disposal and recycling services that the County provides. All other non-essential services that the Solid Waste Division provides for free will be eliminated until funding is available. The funding for services will be provided by the general fund at the request of the commission. These services include:

- Annual “Earth Day Celebration” event.
- Annual Household Hazardous Waste Collection event.
- Annual Small Quantity Generator (SQG) Hazardous Waste Collection event.
- Elimination of waived fees for community groups or cleanup events.
- Elimination of waste reduction education programs.
 - No school programs.
 - Non-participation in the annual “Water Jam” educational jamboree.
- Sharps exchange program modification.
 - No free sharps containers.
 - Disposal will still be provided.

Cost at Existing Conditions - 2012

Total Expenses	\$701,913
Total Revenues	\$660,098
Net Revenue (loss)	(\$41,815)

Budgeted Cost with non-essential programs removed - 2013

Total Expenses	\$816,730
Total Revenues	\$845,728
Net Revenue	\$28,998

6.2 Waste Disposal Costs

Currently the County is hauling all of its waste to the Wasco. The transport time ranges from anywhere from 3.5 hours to 4.5 hours per roundtrip. County staff continues to monitor alternative landfill tipping fees.

Total disposal cost including truck and driver is calculated as \$40.75 per ton. Currently waste from Mr. Pleasant and Underwood is being transferred in 50 cubic yard (CY) open top containers and compactor boxes to Stevenson. All MSW is shipped from Stevenson to Wasco in 48-foot open top live-bottom highway trailers. Other options for transport were considered and the costs were estimated in the Appendix XI spreadsheet analysis, including:

1. Existing method of transport - \$48.72 per ton.
2. Shipping from Underwood direct to Wasco in 50 CY open top boxes - \$49.80 per ton.
3. Shipping from Underwood and Mt. Pleasant direct to Wasco in 50CY open top boxes - \$49.80 and \$80.08 per ton respectively.
4. Shipping direct to Wasco from all three-transfer stations in 48-foot highway trailers - \$42.73 per ton.

Item 1, above, calculated to be the most cost-effective method. The Solid Waste Department realizes a direct margin over its basic disposal rate of \$150/ton minus \$48.72 or \$101.28 per ton on MSW received and shipped to the landfill. It is for this reason that more MSW would reduce the amount of County general funds required for the operation.

6.3 Summary of Analyses of Various Operating Scenarios

Cost at Existing Conditions

Total Expenses	\$701,913
Total Revenues	\$660,098
Net Revenue (loss)	(\$41,815)

6.3.1 Scenario A - Eliminate non-essential programs

All non-essential services that the Solid Waste Division provides for free will be eliminated until funding is available. These services include:

- Annual “Earth Day Celebration” event.
- Annual Household Hazardous Waste Collection event..
- Annual Small Quantity Generator (SQG) Hazardous Waste Collection event.
- Elimination of waived fees for community groups or cleanup events.
- Elimination of waste reduction education programs.
 - No school programs.
 - Non-participation in the annual “Water Jam” educational jamboree.
- Sharps exchange program modification.
 - No free sharps containers.
 - Disposal will still be provided.

Budgeted Cost with non-essential programs removed - 2013

Total Expenses	\$816,730
Total Revenues	\$845,728
Net Revenue	\$28,998

(Refer to Appendix III for a detailed analysis)

The improvement over the Existing Conditions is a revenue benefit with severe reduction of services to the public.

6.3.2 Scenario B. Convert to Commingled Recycling (no reduction of Services).

As described in Section 5.6.2 of this Plan, the elimination of recycled material processing would decrease revenue by \$150,000. This amount is a result of processing cost at \$10/ton coupled with the loss of recycle revenue, and no change in staffing fixed costs.

(Refer to Appendix IV for a detailed analysis)

6.3.3 Scenario C. Close Down the Underwood Station

Due to its low volume the cost per ton received at the Underwood Drop Box Facility, the County should consider closing the site, with estimated savings of \$\$78,000 per year.

(Refer to Appendix V for a detailed analysis)

The improvement over the Existing Conditions is a revenue benefit. The closure will result in a significant reduction in the level of service to some County residents.

6.3.4 Privatization of All or Portions of the Solid Waste Operation.

Typically the solid waste operations of counties or other government entities are a combination of private business and public agencies. This is currently the case in Skamania County with curbside collection by private haulers and the balance of service provided by the County. In efforts to reduce tax supported costs there has been a general trend nationwide to initiate, or at least to consider privatization of utility and other services that have been historically provided by government entities.

The County should consider a thorough review of the solid waste services and the costs thereof.

Advantages of privatization include:

- Minimization of government
- Private operations can enjoy more flexibility and respond faster to change.
- Potential cost benefits.

Advantages of government provided services include:

- Control of the quality and manner in which services are provided.
- Able to respond to the service demands of the populace.
- Elimination of the 'profit' motive and the associated cost to the service users.

The main elements of the solid waste program currently operated and controlled by the County are:

- Gate keeping and operation of the transfer station and two drop box facilities including

- receipt of self-hauled MSW and responsibility for handling tipping fee receipts.
- Transportation of MSW to disposal sites.
- Receipt and disposal of household hazardous waste materials (if funding is available).
- Receipt and control of recycled materials.
- Processing of recycled materials.
- Finding markets and price negotiation for sale of recycled materials.
- Transportation of recycled materials to the market.

The following steps would be included in the process to pursue the privatization option:

- Decide which of the above functions would be included for privatization.
- Meet with the County Commissioners, SWAC, potential bidders and other concerned parties. Describe conditions and requirements, taking input for the development of a Request for Proposal (RFP).
- Hold public meetings.
- Decide whether to continue in pursuit of privatization.
- Determine whether County owned fixed facilities (real property, buildings and equipment) should be sold, leased or loaned to the Contractor.
- Determine whether County owned rolling stock (trucks, trailers, etc.) should be sold or leased to the Contractor.
- Contract should assure service levels specified by the County Commissioners are met, and the facilities and grounds are properly maintained.
- Prepare and advertise an RFP, mailed to all potential bidders that expressed an interest, or to those that the County has specifically identified as qualified.
- Screen and evaluate all proposals.
- Comprehensively compare benefits of the selected proposal to the County's operations, needs and desires.
- Impacted County staff requires provisions for their well-being.
- Decide whether to continue in pursuit of privatization.
- Conduct formal interviews with the short-listed proposers.
- Select a preferred Contractor.
- Negotiate specific terms. If during the negotiations a contractual impasse is encountered begin negotiations with the second choice, continuing down the list until an agreement is reached.
- Determine whether an adequate contract can be obtained and decide whether to proceed.
- Develop contract language including concerns identified in Item 7 above.
- Implement the program (if so decided) maintaining inspections, and measuring success.

The credentials and resources of the contractor must be carefully screened prior to awarding the contract. The contractor must have the resources and facilities to perform the contract. The most practical way to determine if there are any financial benefits gained by privatization is to wait until the proposals are received and evaluated.

CHAPTER 7 – MODERATE RISK HAZARDOUS WASTE MANAGEMENT PLAN

7.1 General Administration

7.1.1 History

The previous Moderate Risk Waste Management Plan for Skamania County began development in 1988, in cooperation with the Cities of North Bonneville and Stevenson. It was regional in scope and therefore included Clark County and all its cities and towns. With the guidance of a 14 member Hazardous Waste Technical Advisory Committee, staff from the Intergovernmental Resource Center prepared the plan. Membership on the Technical Committee included the Skamania County Solid Waste Advisory Committee and the Skamania County Department of Emergency Management.

The Moderate Risk Waste Plan designated the Southwest Washington Health District (SWWHD) as lead implementation agency. The plan was adopted by all cities and jurisdictions in Skamania and Clark counties in 1988, and was approved by the Washington State Department of Ecology (Ecology) in 1989. The SWWHD Board of Health then adopted the plan in 1989 and implementation began in April 1989. As lead agency, the SWWHD was responsible for coordination and implementation of all plan elements except the collection and disposal of household hazardous waste. In 1997 the program was amended and Skamania County assumed the role of lead agency within its jurisdiction, with the exception of enforcement, which the SWWHD retained. In 2008 the Skamania County Environmental Health Department assumed the role of lead agency within its jurisdiction.

The Plan was written in response to RCW 70.105.220, requiring local governments to develop and implement moderate risk hazardous waste management (MRW) plans.

7.1.2 Introduction

While the 1989 Moderate Risk Waste Plan (MRW) was published as a separate, bound document, the new plan, in its entirety, is integrated into the Skamania County Comprehensive Solid Waste Management Plan as chapter seven. This chapter is the five-year MRW Plan and will be updated, as required, along with the other chapters of the Skamania County Comprehensive Solid Waste Management Plan (plan).

Management efficiencies are anticipated due to similar health risks posed by the waste streams and include permitting and enforcement. Other efficiencies such as the same planning area and streamlined education programs will allow the County to be more responsive to the needs of the public, eliminate duplication and increase effectiveness.

Moderate risk waste can be hazardous to human health, wildlife or the environment but is conditionally exempt from the State Dangerous Waste Regulations, Chapter 173-303 WAC. Moderate risk waste has been specifically defined by RCW 70.105.010 (13) to mean: Any waste that exhibits any of the properties of hazardous waste but is exempt from regulation

solely because the waste is generated in quantities below the threshold for regulation and any household wastes (HHW) which are generated from the disposal of substances identified by the department as hazardous household substances . The list of hazardous household substances can be found in Table 7-1 below or Appendix F of the Guidelines for Developing and Updating Local Hazardous Waste Plans:

<https://fortress.wa.gov/ecy/publications/publications/1007006.pdf>. Moderate risk waste includes hazardous (toxic, corrosive, flammable, reactive) waste generated by households and businesses.

The term “moderate risk” does not refer to the materials but to the generator. Moderate risk waste includes household waste with hazardous characteristics, and hazardous waste from businesses that:

- Do not generate more than 220 pounds of dangerous waste per month or accumulate no more than 2,200 pounds in a ten-month period.
- Do not generate more than 2.2 pounds of extremely hazardous waste per month.

The Washington State Department of Ecology (Ecology) no longer regulates, as large quantity generators, the businesses able to meet the above thresholds. Prior to November 1995, the Dangerous Waste Regulations had established lower accumulation limits (i.e. 220 pounds). With the change, many businesses are now classified as small quantity generators (SQG’s).

Since HHW and SQG wastes are specifically excluded from state hazardous waste regulation, the control of these moderate risk wastes falls primarily to local governments. Various municipalities and private enterprise also play a role in MRW management.

This Plan describes how Skamania County’s MRW will be managed by waste generators, by the Skamania County Solid Waste Management Division (SWMD), and by other involved parties, such as the Skamania County Environmental Health Department (SCEHD). It allows the County to take advantage of regional opportunities while effectively managing the local problem.

The guiding principal of the Plan is to preserve the quality of life in Skamania County by protecting the air, soil and water. To attain this directive the Plan identifies several goals and objectives the County needs to strive towards. The three key goals include:

GOALS

Goal 1: The County will provide the leadership and cooperation necessary to solve the community problems faced by the generation of moderate risk waste.

Goal 2: All local governments, agencies and jurisdictions will implement and improve upon the Plan’s recommendations such that the combined efforts enable the County to identify, meet or exceed the State’s moderate risk waste goals.

Goal 3: The County will develop moderate risk waste alternatives that are consistent with the State’s priorities as defined in Chapter 70.105.150 RCW.

The intent is to develop and recommend a management program that will meet the following

objectives:

- Increase the awareness of the Skamania County citizens and businesses regarding the hazards of moderate risk waste and the County priorities for generation, handling, storage and disposal.
- Establish a leadership role as the County government by defining each department's responsibilities in reaching the goals.
- Reduce the quantity of MRW that is generated in Skamania County.
- Create the means for collecting and properly disposing of the MRW that is generated.
- Develop baseline data and information that can measure outcomes and determine success.

7.1.3 The Moderate Risk Waste Problem

Some people think of hazardous wastes only in relation to large industry, but it is also generated by smaller businesses and by individual households. While generated in small amounts at several thousand locations, when accumulated as a hazardous waste volume or in combination with the solid waste stream, the total amount is significant. The average household hosts a multitude of common hazardous products used from such activities as home repair or remodeling, auto or boat maintenance, cleaning agents, yard and garden care, and hobby and recreation. Table 7-1 provides examples of the hazardous products one might find in these categories. Table 7-2 provides a hazardous household substances list. Small businesses also use or produce an array of hazardous materials.

Table 7-1: Hazardous Household Material Groups

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

Table 7-2: HAZARDOUS HOUSEHOLD SUBSTANCES LIST

Substance(s) or Class(es) of Substances	Primary Hazards			
	Flammable	Toxic	Corrosive	Reactive
Group 1: Repair and Remodeling				
Adhesives, Glues, Cements	X	X		
Roof Coatings, Sealants		X		
Caulkings and Sealants		X		
Epoxy Resins	X	X		X
Solvent Based Paints	X	X		

Table 7-2: HAZARDOUS HOUSEHOLD SUBSTANCES LIST				
Substance(s) or Class(es) of Substances	Primary Hazards			
	Flammable	Toxic	Corrosive	Reactive
Solvents and Thinners	X	X	X	X
Paint Removers and Strippers		X	X	
Group 2: Cleaning Agents				
Group 2: Cleaning Agents	Flammable	Toxic	Corrosive	Reactive
Oven Cleaners		X	X	
Degreasers and Spot Removers	X	X	X	
Toilet, Drain, and Septic Cleaners		X	X	
Polishes, Waxes, and Strippers	X	X	X	
Deck, Patio, and Chimney Cleaners	X	X	X	
Solvent Cleaning Fluid	X	X	X	X
Household Bleach (< 8% solution)			X	
Group 3: Pesticides				
Group 3: Pesticides	Flammable	Toxic	Corrosive	Reactive
Insecticides	X	X		
Fungicides		X		
Rodenticides		X		
Molluscides		X		
Wood Preservatives		X		
Moss Retardants		X	X	
Herbicides		X		
Fertilizers		X	X	X
Group 4: Auto, Boat, and Equipment Maintenance				
Group 4: Auto, Boat, and Equipment Maintenance	Flammable	Toxic	Corrosive	Reactive
Batteries		X	X	X
Waxes and Cleaners	X	X	X	
Paints, Solvents, and Cleaners	X	X	X	X
Additives	X	X	X	X
Gasoline	X	X	X	X
Flushes	X	X	X	X
Auto Repair Materials	X	X		
Motor Oil		X		

Table 7-2: HAZARDOUS HOUSEHOLD SUBSTANCES LIST

Substance(s) or Class(es) of Substances	Primary Hazards			
	Flammable	Toxic	Corrosive	Reactive
Diesel Oil	X	X		
Antifreeze		X		
Group 5: Hobby and Recreation				
	Flammable	Toxic	Corrosive	Reactive
Paints, Thinners, and Solvents	X	X	X	X
Pool/Sauna Chemicals	X	X	X	X
Photo Processing Chemicals	X	X	X	X
Glues and Cements	X	X	X	
Inks and Dyes	X	X		
Glazes		X		
Chemistry Sets	X	X	X	X
Pressurized Bottled Gas	X	X		X
White Gas	X	X		X
Charcoal Lighter Fluid	X	X		
Batteries		X	X	X
Group 6: Persistent Bioaccumulative Toxins (PBT's)				
	Flammable	Toxic	Corrosive	Reactive
Mercury <ul style="list-style-type: none"> • CFLs and Fluorescent Tubes • Auto Switches • Thermometers • Barometers • Thermostats • Button Cell Batteries 		X (all)	X(all)	
Lead <ul style="list-style-type: none"> • Lead Acid Car Batteries • Fishing Weights • Unused Lead Shot • Unused Traffic Paint • Unused Art Supplies (for Stained Glass and Lead Pottery Glaze) 		X (all)		
Polybrominated Diphenyl Ether (PBDE's) <ul style="list-style-type: none"> • Televisions • Computers 		X (all)		

Table 7-2: HAZARDOUS HOUSEHOLD SUBSTANCES LIST				
Substance(s) or Class(es) of Substances	Primary Hazards			
	Flammable	Toxic	Corrosive	Reactive
<ul style="list-style-type: none"> • Other Electronic Products <p><u>Note:</u> These items should all be treated as electronics and recycled.</p>				
Polycyclic Aromatic Hydrocarbons (PAH) <ul style="list-style-type: none"> • Roofing Sealant • Pavement Sealant • Used Motor Oil 		X (all)		
Polychlorinated biphenyl (PCB) <ul style="list-style-type: none"> • Caulking (manufactured prior to 1979) • Light Ballasts (manufactured prior to 1979) 		X (all)		
Group 7: Miscellaneous	Flammable	Toxic	Corrosive	Reactive
Ammunition	X	X	X	X
Asbestos		X		
Fireworks	X	X	X	X
Marine Aerial Flares	X	X		
Pharmaceuticals		X		
Non-controlled Substances		X		
Sharps				
Personal Care Products	X	X	X	

It is known that the improper management and disposal of hazardous wastes magnifies the potential hazards to human health and the environment.

What was considered previously as acceptable practices, either by burying in the landfill or dumping into the sanitary sewer system, is now known to have significant consequences. Unacceptable practices include indiscriminate dumping at unauthorized locations, and unpermitted incineration, treatment or storage.

In view of the dangers, the Skamania County has implemented and will continue to manage hazardous waste options to include source reduction, product substitution, substance re-use and recycling; and when these options are exhausted, ensure the waste is disposed of properly and responsibly.

It is the intent of the County to acquire adequate disposal sites and facilities or contract for the disposal of all solid waste (which includes MRW) generated and collected in Skamania County and the municipal corporations situated therein. Such disposal sites, facilities and contracts shall be consistent with other local plans, and all federal, state and local requirements. A summary of

the federal and state regulations that govern or affect management of household hazardous waste and small quantity generator waste is found in subchapter 7.4.1.

In creating this plan, the Solid Waste Management Division is fulfilling local and state mandates to manage and control potentially harmful moderate risk wastes. This plan identifies current MRW management practices in the county, and recommends improvements and additional programs. With continued research, knowledge about the types and effects of MRW and hazardous materials will grow. Therefore, Ecology's guidelines directs the plan to set goals and objectives in five-year increments, within a 20-year time frame. This will enable the counties to incorporate new discoveries and developments into the plan as each is tested and proven. Implementation of new technologies and best management practices will contribute to the health and well being of the community and the environment.

7.1.4 Waste Management Priorities

Similar to the State Solid Waste Management – Reduction and Recycling Act (SWMA), the Hazardous Waste Management Act (HWMA) establishes a waste management hierarchy. In descending order, the waste management priorities are:

- Waste reduction;
- Recycling;
- Physical, chemical and biological treatment;
- Incineration;
- Solidification/stabilization treatment;
- Landfilling.

Local governments are responsible for regional planning, implementation and certain enforcement activities under the SWMA and HWMA. They are required to develop solid waste and local hazardous waste management plans that identify local waste management needs and provide a long-term program for meeting those needs. Local governments maintain most of the regulation and enforcement responsibilities for solid waste management, including activities related to facility siting, permitting and inspections. In addition, local governments, as well as hazardous and solid waste management firms, provide waste collection, transfer, recycling, and disposal services for their communities.

7.1.5 Target: Waste Generators, Waste Streams

There are two key programs within the Plan; one is aimed at the general public (households), the other is directed towards businesses that generate small quantities of hazardous waste (SQG's).

- For the general public (Target: Used oil and antifreeze):
- Increase awareness of the dangers of moderate risk waste,
- Encourage the use of less hazardous materials,
- Discharge less MRW into the environment, and
- Provide increased opportunities for safely disposing of moderate risk wastes.

When the public is aware of the environmental dangers these materials pose and the special handling they require, they will be more likely to recognize and act upon the dangers posed by

other materials more commonly recognized as hazardous. These include solvents and pesticides (e.g. oil and antifreeze comprise significant portions of the waste stream).

For commercial generators (target by industry per waste quantity):

- Increase awareness of the applicable Federal, State and local plans and rules,
- Encourage the use of less toxic materials.
- Support and participate in waste audit programs by Ecology and SWWHD.
- Provide increased opportunities for safely storing and disposing of moderate risk waste.

The programs will emphasize the following:

- Educating the public and commercial generators about the hazards and proper storage and disposal of Moderate Risk Wastes, through literature, outreach activities and telephone information.
- Promoting source reduction and MRW product substitution strategies for households and businesses.
- Evaluate and expand, as needed, current MRW disposal options; such as additional waste oil and antifreeze drop sites, continuing household hazardous waste (HHW) collection events and usable product giveaways; and, examining year-round disposal options for households and small quantity generators (SQG's).

7.1.6 Plan Boundaries and Participants

The participating jurisdictions in this planning area are Skamania County, the cities of North Bonneville and Stevenson, all of the County's towns and rural areas, and the Skamania County Environmental Health Department. Any of the participating jurisdictions are free to undertake activities beyond the scope of the Plan, since the intent of the Plan is to provide a foundation upon which to build local and regional programs.

The Skamania County Solid Waste Division is the lead agency in developing the Moderate Risk Waste Management Plan. It has combined this Chapter with the update of the County's Comprehensive Solid Waste Management Plan.

7.1.7 Planning Process

The planning process for this Chapter began in October, 1997, when the Skamania County Solid Waste Management Division (SWMD), SWWHD, Ecology and others agreed to develop a Skamania County Moderate Risk Waste Management Plan to cover moderate risk waste generated by households and small quantity generators. With guidance from the Solid Waste Advisory Committee (SWAC) County staff produced this Plan.

They conducted and evaluated local records and reports, and reviewed regional and state risk waste data from the public and private sectors. The committee input was used to identify specific needs and concerns of the small business community and the general public. It developed a list of programs and assigned final priorities to the programs.

7.1.8 Public Participation

RCW 70.105.220(b) and (d) requires that localities that develop and implement MRW Plans involve the public in the process. Skamania County invited the public to participate in reviewing project findings, evaluating and selecting MRW management strategies and alternatives, and approving the draft plan. The community involvement program contained the following elements:

- County SWAC
- Creation of a fact sheet distributed to county residents and businesses.
- Advertisement campaign
- Public meeting
- Briefings to participating jurisdictions during plan adoption

The advertisements and other information define MRW, its sources, potential hazards of improper disposal, and the preferred programs. The SWAC provided a forum for discussing the alternative management strategies being considered for the Plan.

7.1.9 Adoption Procedures

Procedures for adopting the Skamania County Comprehensive Solid Waste Management Plan including the Moderate Risk Waste Plan – Chapter 7, follow Ecology’s Planning Guidelines. These include:

- Technical Draft review by the Solid Waste Advisory Committee, County Solid Waste Division, and the Southwest Washington Health District.
- The Preliminary Draft Plan is submitted concurrently to the public and the two state agencies, Washington Utilities and Transportation Commission (WUTC) and Ecology; 120 day plan review period.
- The Final Draft Plan incorporates significant comments received into this draft from the public and the state agencies: Ecology, WUTC.
- The final Draft Plan is presented to the Cities for adoption, to the County Council for adoption, and is then sent to Ecology for approval; 45 day plan review period.

7.1.10 Plan Amendment Procedures

Throughout the course of implementing the Plan, it is expected that program recommendations will be modified. The duration of some programs may be a construction period or an event; an achieved action that is not repeated. Some programs will be discontinued as others are introduced. Still others may be repeated continuously but altered upon evaluation of the desired outcome, or the breadth of success.

As mentioned above, amendments to state or local laws or changes in technology may also occur. The County MRW Plan will remain current under any or all of these conditions. The County will rationally review all opportunities and best management practices as it presents itself, either local or regional in scope. Changes consistent with the intent of the plan, and that do not significantly alter the programmatic impacts of the plan, will be considered insignificant and will not require a plan amendment. While no formal process is required the staff will inform

the SWAC when benchmarks are achieved, measured success of events and as each new activity is initiated.

When an unplanned activity is deemed necessary, when the intent of the plan is altered or when environmental or economic activities impact the planned programs, those changes to the Plan will be considered significant. Changes to the Plan that affect the rights or responsibilities assigned by this Plan will be considered significant. Where changes are significant, the process described above in Subsection 7.1.9 will be followed.

7.1.11 Plan Update

The Moderate Risk Waste Management Plan is designed to be reviewed and updated as necessary along with the update planning schedule of the Skamania County Comprehensive Solid Waste Management Plan (plan). When completed, the entire plan will be available for public review and for sale at the Courthouse Annex, Public Works office; and will be on file at the Skamania County Library.

7.2 Background Information

This Chapter provides information about the planning area and about local, state and federal programs pertaining to moderate risk hazardous waste. This information includes population, economics, land use, past practices and existing infrastructure, needs and opportunities, regulations and financing.

7.2.1 The Planning Area

Population:

The population of Skamania County is concentrated in the southern quarter of the County near the Columbia River, where the Cities of Stevenson and North Bonneville are located. Several population trends have been observed in the past decades. The decade of the 1970's experienced a 35 percent increase in growth. For more than half of the 1980's the population slightly declined, but recovered by 1990, for an overall increase of approximately 4 percent. During the decade of the 1990's the total County population changed significantly. It grew at a rate higher than nineteen-percent. The City of North Bonneville saw the greatest increase at 37 percent, while the City of Stevenson saw an increase of 11 percent. These figures are within the 20-year population estimates prepared by the Skamania County Planning Department and found in Chapter 2, Table 5 of the Plan.

Economics:

There are nearly 2000 persons employed in the County. The average monthly employment is distributed between Government (40%), Services and Retail Trade (35%) and Manufacturing (15%). Previously, the County's economy was primarily a wood products industry, 64% of total employment in 1985. Since the loss of that economy, no industry has emerged to compensate for that employment. Instead there has been significant growth in the retail trade and service sectors. No longer a forestry/agriculture economy of a rural nature, the County is rather a mixture of urban activities (service and retail trade, retired, bedroom community, hobby farming) situated along the State Highway 14 corridor.

The Office of Financial Management, in the 1999 Data Book, estimates that approximately 30 percent of the recurrent hazardous waste generated per year in the State originates from Public Administration, Manufacturing, Services and Retail Trade. . Based on current demographics, it is estimated that within the County, the combined volume of MRW and hazardous waste is approximately 60 tons per year. Assuming twenty percent of this total is generated from small quantity generators, approximately 12 tons enter the management of the Skamania County Moderate Risk Hazardous Waste Program. Using updated assumptions the County's hazardous waste generation estimates are several tons less than these figures, as listed in Table 7-5, Waste Elements.

Land Use:

The vast majority of land within Skamania County is federally owned and forested. Private land accounts for 19 percent of the total land in the County. There are two incorporated cities within the County, Stevenson and North Bonneville. The dominant land use is residential and commercial. While both Cities have areas zoned industrial, Stevenson is only zoned for light industry, while North Bonneville's does not distinguish between light and heavy industry. In compliance with state law (RCW 70.105.225) Skamania County designates land use zones in which hazardous waste treatment and storage facilities are allowed as a permitted use.

Zone Designations:

The Hazardous Waste Management Act (HWMA) distinguishes between two categories of hazardous waste management facilities and the process for siting these facilities. Ecology is required to site "preempted facilities," that is, those sites with particular state-regulated hazardous waste management activities. These activities include landfilling, incineration, land treatment, surface impoundment and the use of waste piles.

Local governments are required to establish land use zones or geographic areas for siting "designated zone facilities," such as hazardous waste recycling, storage and treatment facilities. These local zoning requirements must be consistent with the state's hazardous waste facility siting criteria and must allow hazardous waste processing or handling where hazardous substances (such as raw materials) are processed or handled.

Local governments are not required under the HWMA to develop land-use zones for siting designated zone facilities if they can show that, within their jurisdictions, no regulated amounts of hazardous waste were generated over the previous two years, and no geographic area meets the state's siting criteria.

Designated land-use zones or geographic areas, as well as requests for exemption from the zoning requirements must be approved by Ecology. Ecology has the authority to establish zones for hazardous waste facilities or preempt local authority in communities that do not have approved land-use zones or geographic areas.

A distinction has been made between on-site and off-site hazardous waste treatment and storage facilities. On-site facilities treat and store hazardous wastes generated on the same property and always as an accessory, subordinate and secondary activity to the principal use of the property.

With the exception of residential zones, on-site facilities must be located in zones that allow the processing or handling of hazardous substances.

Off-site facilities are defined as those that treat and store hazardous wastes from generators on properties other than where the wastes were generated. Off-site facilities must be allowed as permitted uses in all zones that allow industrial and manufacturing uses that process or handle hazardous materials. All such facilities must meet state and local siting and permit requirements.

The Skamania County Zoning allows for on-site hazardous waste treatment and storage facilities in community commercial zones and industrial zones. Off-site facilities are allowed in industrial zones only. As required in the previous 1989 MRW Plan, all jurisdictions in Skamania County submitted a certificate of compliance verifying the amended zoning language to Ecology and have been approved.

As of December 2008, there were no hazardous waste treatment or storage facilities (TSDF's) in Skamania County. The nearest permitted facility having an EPA/State ID number is located in Clark County, namely Philip Services, Corp., formerly Burlington Environmental Inc., Washougal, Washington.

7.2.2 Evaluation of Goals and Recommendations

This subsection reviews the goals and recommendations of the 1989 MRW Plan.

1989 MRW Plan Goals: The overall goal of the MRW Plan was to reduce the amount of hazardous waste in the solid waste and wastewater treatment systems. This goal was to be accomplished by reducing the amount of HHW and SQG hazardous waste being improperly disposed.

The household objective:

A 15% waste rate was to be reached by increasing used motor oil recycling rates to 50%, car battery recycling rates to 95% and participation rates at the MRW collection events/facilities by 27%. In addition, product substitution and sharing were to be promoted as a way to reduce the amount of household waste generated.

The business objective:

A 20% rate was to be achieved through waste reduction and recycling encouraged by an active business technical assistance and education program, and by encouraging the proper disposal of remaining wastes through an organized community pick-up service.

Goal Results:

In 2007 used motor oil recycling rate for Do-It-Yourselfer's (DIY) was estimated to be 71%, and 100% of County District Shop oil was collected for energy recovery. Phillips Environmental Services currently offers monthly SQG hazardous waste collection by appointment at its transfer, storage and disposal facility (TSDF) in Washougal servicing Skamania County and the incorporated cities.

2001 MRW Plan Recommendations for the Household Program:

Hold household hazardous waste collection days in years one through five.

Results:

Several collection events were held in the past ten years. Each event lasted one day. They were free to households. Daily collection of HHW was implemented on a trial basis for a period of two years but was discontinued in favor of mobile collection events.

Construct and operate a permitted household hazardous waste drop-off station.

Results:

This recommendation was not accomplished. However, permanent oil and antifreeze drop-off sites were developed at the three County Facilities.

Implement a household hazardous waste education program.

Results:

HHW education programs developed and implemented from 1990 through 2008 include the following:

- Provided publicity and education about local household hazardous waste collection and recycling opportunities and waste reduction, and distributed promotional materials.
- Produced and distributed written materials to area residents. Distributed HHW information to local libraries, community centers, etc.
- Provided speakers for public forums and school presentations.
- Publicized moderate risk waste issues through the earth day, county fair and other community events.

Supported “A-way With Waste” teacher training workshops, in conjunction with Ecology’s school curriculum program.

2001 MRW Plan Recommendations for the Business Program:

Implement a business technical assistance and education program for conditionally exempt small quantity generators.

Results:

SQG technical assistance and education programs developed from 1990 through 2008 include the following:

- Provided publicity and education about local small quantity hazardous waste collection, recycling opportunities and waste reduction, and distributed promotional materials.
- Supported various “Shop Sweep” type programs in conjunction with Ecology.
- Several collection events were held during the past twenty years. Each event lasted one day. Skamania County businesses dealt directly with the contracted hazardous waste collection company that provided the Household Hazardous Collection program, and was charged a minimal fee for disposal and transport.

Home-based businesses were also to be targeted with education and information.

Results:

This recommendation was not accomplished.

General Programs:

Form a task force to review and update existing regulations; develop model language for local hazardous waste ordinances or resolutions in the first year one; and clarify the enforcement responsibilities of the SCEHD and Ecology related to moderate risk hazardous waste.

Results:

The Hazardous Waste Agency Coordinating Committee and the Hazardous Waste Regulatory Task Force were established in 1990. The Oil Recycling and Disposal Ordinance was developed and subsequently adopted by the SWWHD in March 1994. Model language was not developed.

Continue to improve the enforcement of existing regulations related to hazardous waste. Enforce new ordinances passed by jurisdictions following the recommendations of the task force.

Results:

SCEHD has provided enforcement activities for complaints and nuisances related to hazardous wastes. Enforcement regulation No. 96-01, adopted through the SWWHD in 1996, is a revised enforcement ordinance that applies to moderate risk waste enforcement activities and provides enhanced enforcement capabilities for staff.

Add the moderate risk waste program and policy review to the duties of the Skamania County Solid Waste Advisory Committees (SWAC).

Results:

The SWAC was kept up-to-date on MRW Plan amendments and major program issues through periodic memos, updates and presentations directed to the committee. Committee members input was also solicited prior to major MRW policy decisions.

Establish a Hazardous Waste Coordinating Committee composed of agencies implementing this plan and other local programs related to moderate risk waste to coordinate and oversee implementation.

Results:

The Hazardous Waste Agency Coordinating Committee and the Hazardous Waste Regulatory Task Force were created in 1990 and met quarterly until mid-1995.

Evaluate the programs and update the Plan in the fifth year.

Results:

The evaluation was completed in 2001.

Used Motor Oil Recycling:

The programs and actions that are recommended in the Used Oil Recycling Amendment (1994) for implementing the Skamania County do-it-yourself (DIY) used oil management program included the following elements:

- Improve used oil collection services, including collection goals, site locations and population served.

Results:

The county collected 5,350 gallons of DIY used motor oil and in 2007 reached 71 % towards the state collection goal of 80 percent. In 1992 the County established permanent used motor oil and antifreeze collection tanks at all three solid waste transfer stations; serving the 9,900 residents or about 3,300 households.

Develop a program for used oil education. In addition, the Used Oil Recycling Amendment suggested placing information about used oil recycling in advertisements aimed at households.

Point-of-purchase signs were to be posted in retail outlets, selling more than 1,000 gallons of oil or 500 filters and in interested establishments selling smaller amounts.

Results:

All used oil education elements have been implemented.

Develop an implementation schedule and annual budgets for the recommendations.

Results:

Education activities have continued, as noted above.

Identify the roles and responsibilities of jurisdictions in regards to used oil recycling.

Results:

Skamania County is the lead agency for the used oil-recycling program. The SCEHD is the lead agency for enforcement of the Used Oil Disposal and Recycling Ordinance.

7.3 Existing Programs

The combined Moderate risk waste program for Skamania and Clark County has taken a variety of forms since the 1989 MRW Plan was implemented. Some activities have been combined with solid waste information programs, such as general waste management information, publications and handouts. Others have specifically targeted moderate risk waste from households and small quantity generators. Skamania County's collection program is one of collection events, while Clark County has operated permanent MRW fixed facilities since 1993. Both Counties have had used oil collection drop-off centers since 1992, while the City of Vancouver and some areas of Clark County have had curbside collection of used oil throughout the urban service area since 1992.

At the end of the 1990's several regional management changes occurred, including a change in lead agency for Clark County's MRW Program. Another reason is that Clark County updated its MRW Plan independent of Skamania County. The Skamania County Environmental Health Department is now lead agency responsible for permit authority, enforcement, and coordinating and overseeing implementation of all elements of the plan.

Since the eleven local governments were under the direction of the SWWHD for several years, a summary of their combined efforts is presented in Table 7-3. The combined programs are summarized through 1996 and as noted above, for just Skamania County between 1997 and 2008.

Table 7-3: Summary of Moderate Risk Hazardous Waste Programs

Year	Programs
1990	Distributed 200 HHW Publications – HHW/SQG Collection Events, Skamania and Clark County
1991	Distributed 1800 HHW Publications – HHW/SQG Collection Events, Skamania County, Clark County and the City of Vancouver
1992	Distributed 500 HHW Publications – Portable Display exhibited in 10 locations – 10 HHW Education Presentations – SQG Workshops, 50 participants – SQG Technical Assistance, including Ecology “Shop Sweeps” – Used Motor Oil drop-off Locations – Urban Service Area Curbside Used Motor Oil Collection – HHW/SQG Collection Events, Skamania County.
1993	Distributed 1500 HHW Publications – Portable Display exhibited in 15 locations – 15 HHW Education Presentations – SQG Workshops, 150 participants – SQG Technical Assistance – SQG Hotline – HHW Collection, Permanent Facility Central Transfer (January - December) – HHW Collection, Permanent Facility West Vancouver (March - December) – 3 SQG Collection Events – Used Motor Oil drop-off Locations – Urban Service Area Curbside Used Motor Oil Collection – HHW/SQG Collection Event, Skamania County.
1994	Distributed 2000 HHW Publications – Portable Display exhibited in 70 locations – 25 HHW Education Presentations – SQG Business Technical Assistance to 92 businesses – SQG Technical Assistance – SQG Hotline – Used Oil Recycling and Disposal Ordinance adopted by the SWWHD – 3 SQG Collection events at HHW facility – Used Motor Oil drop-off Locations – Urban Service Area Curbside Used Motor Oil Collection – 2 HHW Permanent Facility Collections - HHW and SQG Collection Event, Skamania County.
1995	HHW Education Presentations – A-Way With Waste Teacher Training Workshops – SQG Workshops – SQG Technical Assistance, including Ecology “Snap Shots” – SQG Hotline – Used Motor Oil drop-off Locations – Urban Service Area Curbside Used Motor Oil Collection – 2 SQG Collection Events at HHW facility – 2 HHW Permanent Facility Collections – HHW/SQG Collection Event, Skamania County
1996	700 HHW School Presentations, 4 th grade – HHW Information Distribution in 8,000 Recycling Directories, in Master Composter/Recycler Program, school flyers, flood victims – Information Line – Hazard Free Home Program Slide Presentations – Green Cleaning Kits Construction and Distribution – Used Oil Education: distributed 50 used oil containers to homeowners, staffed display at assorted fairs, news articles, point-of-purchase display signs, bill stuffers – HHW Cable Access Video with Clark County Hazardous Waste Citizen Task Force – Portable Display, festival appearances – A-Way With Waste Teacher Training Workshops – SQG Technical Assistance to 98 businesses – SQG Information ads & article in Vancouver Business Journal – SQG Workshops general, printers, “Business Partners for Clean Water” – SQG Hotline – Newspaper

	Articles – Re-refined Oil Purchase Promotion; County, SWHD and Vancouver School District fleets – Enforcement Regulation #96-01 – 2 HHW Collections, Fixed Facilities – 10 Used Motor Oil drop-off Locations – Urban Service Area Curbside Used Motor Oil Collection – HHW/SQG Collection Event, Skamania County.
1997	HHW Education Presentations – Coordinate with Ecology: A-Way With Waste Teacher Training Workshops – SQG Technical Assistance, including Ecology “Snap Shots” – Used Motor Oil/Antifreeze drop-off Locations – HHW/SQG Collection Event.
1998	Coordinate with Ecology: A-way with Waste Teacher Training Program – Used Motor Oil/Antifreeze drop-off Locations.
1999	Coordinate with Ecology: A-way with Waste Teacher Training Program – Used Motor Oil/Antifreeze drop-off Locations.
2000	Distributed 1500 HHW Publications – HHW/SQG Collection Event – Portable Display exhibited in 2 locations
2001	Distributed 1500 HHW Publications – HHW/SQG Collection Event - Portable Display exhibited in 2 locations
2002	Countywide mailing of recycling, waste reduction and MRW brochure – Portable Display exhibited in 1 location Used Motor Oil drop-off Locations – Used antifreeze drop-off locations – HHW/SQG Collection Event
2003	Distributed 1500 HHW Publications – HHW/SQG Collection Event – Portable Display exhibited in 2 locations
2004	Distributed 1500 HHW Publications – HHW/SQG Collection Event - Portable Display exhibited in 2 locations
2005	Countywide mailing of recycling, waste reduction and MRW brochure – Portable Display exhibited in 1 location - Used Motor Oil drop-off Locations – Used antifreeze drop-off locations – HHW/SQG Collection Event
2006	Distributed 500 HHW Publications – HHW/SQG Collection Event - Used Motor Oil drop-off Locations – Used antifreeze drop-off locations
2007	Countywide mailing of recycling, waste reduction and MRW brochure – Used Motor Oil drop-off Locations – Used antifreeze drop-off locations – HHW/SQG Collection Event

Household Hazardous Waste (HHW) and Small quantity generated hazardous waste was collected through the HHW and Moderate Risk Waste Program-sponsored collection events, conducted yearly in Skamania County, over the past ten years. The SQG’s were also informed of Philip Services monthly SQG collection events in Washougal in which several are participating.

7.3.1 MRW Inventory

Table 7-4 provides a summary of participation and costs of the annual collection events as reported to Ecology, and Table 7.5 provides a material breakdown of waste collected over the last 5 years. Used Oil collected is not factored in as it is not feasible to track customer participation at the three drop off sites. The amount of used oil collected is listed below the total row in order to show volumes collected at the three sites. In 2012 ? represented the largest waste stream collected, including ? pounds by volume or approximately ? percent of the material collected in the county. The next highest category of waste is ?, totaling ? pounds.

Table 7-4: Summary of Participation and Costs of Annual Collection

Year	Customers Served	Pounds	Total Cost	Cost/Customer	Pounds /Customer
2007	268	48,892	\$19,735.78	\$73.64	182.43
2008	238	26,128	\$20,939.41	\$87.98	109.78
2009	214	26,387	\$18,602.02	\$86.92	123.30
2010	264	24,970	\$21,924.07	\$83.04	94.58
2011	169	22,899	\$17,881.59	\$105.80	135.50
2012	207	26,180	\$20,359	\$98.35	126.47

Table 7-5: Hazardous Waste Collected from 2007-2012

Material	2007	2008	2009	2010	2011	2012
Antifreeze	3,080	4,320	3,520	1,840	2,000	350
Aerosols	725			500	500	350
Acids	90	112	75	200	150	150
Bases	300	188	100	200	250	145
Vehicle Batteries	5,800	3,159	4,527	3,965		3,580
Nicad/Lithium Batteries	42		40	110	60	
Alkaline Batteries	240	234	100	300	300	30
Flammable Liquids	7,000	1,955	2,750	1,200	3,900	1,800
Flammable Liquids/Poison	1,800	2,350	2,800			
Flammable Butane/Propane	725	46	465	40	25	25
Mercury Lights				140		490
Oxidizers	40	6	10	200		15
Latex Paint	9,300	6,340	6,650	4,500	5,400	8,980
Oil Base Paint	17,475	6,770	4,800	8,900	7,610	8,300
Contaminated Oil Base Paint	900					
Liquid Pesticides	950	596		2,475	1,125	1,350
Solid Pesticides			500	400	1,300	600
Asbestos	350				264	
Ammonia Solutions		52	50		10	15
Reactives	75					
Total	48,892	26,128	26,387	24,970	22,899	26,180
Used Oil	42,800	43,142	40,520	44,680	45,040	21,360

An inventory of the hazardous waste generators is provided in Appendix A or below. This list is based on information provided by Ecology, including dangerous waste generators, remedial action sites, transporters and facilities that manage, treat, and store hazardous waste, and zone designations.

7.3.2 Dangerous Waste Generators

Ecology maintains a list of dangerous waste generators within Skamania County. Dangerous wastes are those solid wastes that designate as dangerous waste or extremely hazardous waste under WAC 173-303-070 through WAC 173-303-100. The term “Dangerous Wastes” includes federal Hazardous Wastes and wastes regulated only by Washington State. Washington State regulates small, medium, large and exempt hazardous waste generators. A list of these generators is provided in Appendix A or below and their definitions are provided below. It should be noted that these lists only include those businesses that have an EPA ID#. There are likely more businesses that generate hazardous wastes in the County who do not have an EPA

ID#.

- **Small Quantity Generators:** A generator whose monthly waste generation is less than the QEL (220 pounds for most common wastes or 2.2 pounds for acutely hazardous wastes) and whose accumulation (at any time) is less than 2,200 pounds for waste with a QEL of 220, or 2.2 pounds for waste with QEL of 2.2 pounds.

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- **Medium Quantity Generators:** A generator whose monthly waste generation or accumulation is 220 pounds or more, but less than 2,200 pounds, of dangerous waste.

There are no MQG's in Skamania County at this time.

- **Large Quantity Generators:** A generator whose monthly waste generation or accumulation is 2,200 pounds or more of dangerous waste, or 2.2 pounds or more of acutely hazardous waste.

There are no LQG's in Skamania County at this time.

7.3.3 Remedial Action Sites

Ecology maintains a list of the sites within the State and individual counties requiring environmental investigation or currently undergoing hazardous waste cleanup.

<http://www.ecy.wa.gov/programs/tcp/sites/sitelists.htm>

You could also create a list from this publication:

<http://www.ecy.wa.gov/pubs/0909042.pdf>

7.3.4 Transporters and Facilities

Transporters and facilities within the County that provide transportation and disposal services are listed on Ecology's Hazardous Waste and Toxics Reduction Services Directory.

<http://apps.ecy.wa.gov/hwsd/default.htm>

You could also look at this site for info.

<http://www.ecy.wa.gov/programs/hwtr/hwfacilities/pages/activefac.html>

In 1999 the county's 3,300 households and approximately 5 – 15 (average 10 SQG's) businesses generated about 239,160 pounds of moderate risk waste, Table 7-6. These materials have the potential to harm the county's soils, wildlife, waters and citizenry. For example, photographic chemicals contain caustics and heavy metals, yet, it is estimated that over 75 percent are simply flushed down our sewers. Protection of public health and the environment in Skamania County calls for residents, businesses, and institutions to reduce the generation of hazardous waste, and to properly manage wastes that are produced. While the County programs are making headway against potential MRW contamination, additional programs and expansion of existing programs are necessary to solve this problem.

Using state accepted assumptions and past experience, the Plan identifies four key assumptions targeting specific waste streams generated in the County. The assumptions listed below when combined total an estimated 120 tons of MRW generated each year:

Table 7-6: Waste Elements

Substance	Methodology	Weight
Household Used Motor Oil	0.9 gallons x 10,600 capita x 8 lbs./gal.	76,320 lbs.
Household Waste Antifreeze:	0.9 gallons x 10,600 capita x 8 lbs./gal	76,320 lbs.
Household Hazardous Waste:	0.5% of 9,000 tons of solid waste*	90,000 lbs.
Small Quantity Gen. Waste:	660 lbs./year x average 10 SQG's**	6,600 lbs.
Total		249,240 lbs.

*Clark County 1999 Waste Characterization Study estimates HHW to be 0.5% of the total waste stream, excluding Oil and Antifreeze. The most conservative figure of total waste generated for Skamania County is estimated in the 2001 Skamania County Solid Waste Management Plan at 9,000 tons per year.

**Draft 2000 Kitsap County Comprehensive Solid Waste Management Plan.

Note: The Clark County 1999 Waste Characterization Study estimates that 0.05% of self-hauled total solid waste stream is used motor oil. Using this figure to determine the amount of oil illegally disposed of as solid waste, by self-haul customers in Skamania County, it is estimated that 162 gallons of used motor oil are disposed in the solid waste stream each year.

7.3.5 Used Motor Oil Collection Program:

County citizens use, on average, one gallon (0.9) of antifreeze and one gallon (0.9) of crankcase oil each year – for an estimated 10,500 residents, that amount is just over 9,450 gallons for each waste stream. Ecology estimates that 50% of the households change their own oil, i.e. are do-it-yourselfers (DIY's). This equals about 4,725 gallons annually generated by DIY's in Skamania County. The county offers, free to the public, waste oil collection containers at all three transfer stations in the County of which 5475 gallons of oil were collected. The Solid Waste Management Division pumps the these containers on a regular basis. Used motor oil is also collected by the SWMD from the three County Road District Shops. All of the waste oil collected from DIY's in Skamania County is recycled. The remaining 3975 gallons of used motor oil are processed by two or three service stations in the County. The Ecology formula assumes that 80% of service station used motor oil is disposed of appropriately, or 3,180 gallons for Skamania County. Based on this estimate, the remaining 795 gallons generated by service stations may be unaccounted for, but this figure has not been substantiated.

Since the County keeps records of the total number of gallons collected, or the volume pumped per location, the Plan can accurately determine the percentage of DIY's using the system, or predict the total volume disposed. Two methods for estimating volumes have been reviewed, as follows:

On average, approximately 6,000 gallons of used motor oil is collected each year. If 50 percent of the 6,000 gallons is estimated from each source, DIY's and county shops, about 3,000 gallons of used motor oil is collected through the County Used Motor Oil Collection Program from DIY's. The state goal for DIY's is 80% of the waste generated. With a volume of 5,350 gallons generated by DIY's the recycling goal is 7,535 gallons. This means the County rate for do-it-yourselfers using the County's Used Motor Oil Collection Program was 71% in 2007.

The County SWMD collects all of the oil generated by the County District Road Shops. However, the Plan estimates about 10 SQG's operate within the county. Based on a county road district shop average of 1000 gallons per year, conservatively, about 7,000 gallons of used motor oil is generated by similar vehicle or maintenance shops in the county to include:

Generator Name	Type of Generator
City of North Bonneville	Vehicle Maintenance Shop, Waste Water Treatment Plant
City of Stevenson	Vehicle Maintenance Shop, Water Department
Washington State	Highway Road Shop, Six (6) Fish Hatcheries
Bonneville Dam	Maintenance Shop

As mentioned previously, private companies offer used motor oil collection services throughout the county or provide a self-haul disposal service that is located in the City of Washougal, Washington. The County supports and has previously participated in the Ecology "Shop Sweeps/Snap Shots" Campaigns. It is also noted that no illegal oil dumping complaints have been received for the years covered by the previous plan. To fully evaluate the County's Used Oil Collection Program surveys and technical assistance efforts should continue to provide baseline and follow-up information on generation and management practices.

7.3.6 Household MRW Collection Program:

Using the above methodology, the total household hazardous waste is estimated to be 73,000 pounds per year (36.5 tons). Based on the disposal records from previous years (1997 – 2009), an average of 43,317 pounds per year (21.66 tons) of HHW/SQG waste is collected and disposed of appropriately by the County Solid Waste Division (SCSWD). Or, approximately 59% of the estimated generated waste. However, this figure does not appear totally reliable since only disposal records are from County sponsored yearly collection events with the state contractor. These records do not reflect the number of years of accumulation, or the sources of generation. These amounts also do not reflect the HHW that is disposed out of county at other Ecology sponsored events.

7.3.7 Used Antifreeze Collection Program:

Using the above methodology, the total used antifreeze is estimated to be 8,900 gallons annually. The county accepts anti-freeze on a daily event and at the HHW collection events and generally produces about 2100 gallons per year. This is only 30% of the states goal of 80% recycling rate.

7.3.8 Small Quantity Generator Collection Program:

Using the above methodology, the total waste generated by ten SQG's in the county is estimated to be 6,600 pounds annually. The County allows the disposal of SQG wastes at its collection events through the state contracted hazardous waste contractor. The Solid Waste Staff also recommend the SQG's participate in a SQG collection program sponsored by Phillip Services out of Washougal, Washington. This is a monthly disposal program that helps the SQG's track their waste types and amounts at a very economical cost.

7.4 Regulatory Framework

Roles and Responsibilities:

Local agency roles and responsibilities for MRW management were well defined in the previous plan. However, due to the complexity of environmental regulations and the requirement to coordinate the Plan with other plans, the following lists agencies that are directly involved:

- County Solid Waste Management Division (SWMD); Skamania County Environmental Health (SCEH), Solid Waste Advisory Committee (SWAC).

And, some that may partially be involved:

- Water Departments, Wastewater Treatment Plants, Planning Departments, Sheriff's Departments, City/County Attorneys, Inter-county Hazardous Waste Task Force/Committee, etc.

The SWMD and SCEH are currently in key management roles. As discussed previously, the SWMD takes the lead role in preparing the Moderate Risk Waste Management Plan. Together, they have co-sponsored and generally organized all MRW collection events in the county to date. In addition, the SWMD currently provides residents with three drop-off sites for used motor oil and antifreeze.

The Skamania County Environmental Health Department, which has developed regulations related to the disposal of toxic wastes in the County, is the official enforcement agency in the County. In addition, the Environmental Health Department is currently providing a number of public services that are directly and indirectly related to MRW management. Some of these activities are:

- Investigation of complaints concerning the improper disposal of household and small business hazardous wastes, educating violators, and if necessary, enforcement action using existing health district toxic waste regulations.
- Educating the public while responding to inquiries concerning hazardous waste management and disposal.
- Participation in the planning and implementation of household hazardous waste collection events and provision for representatives at events to lend assistance and oversee the public health aspects.
- Representation at requested management meetings concerning Superfund Amendments Reauthorization Act (SARA) Title 3 standards and response to chemical emergencies.
- Assistance in developing the Moderate Risk Waste Management Plan through attendance at the Solid Waste Advisory Committee. In the past, at the Hazardous Waste Management Ad Hoc Subcommittee, providing recommendations, and review and

- comment on draft plans and draft technical memorandums and reports.
- Various municipalities and private enterprise may also play a role in MRW management.

7.4.1 Regulations:

Federal, state, and local regulations affect MRW management in Skamania County. A brief overview is provided here.

MRW regulations apply to both household hazardous substances and small quantities of hazardous waste that commercial generators produce. The primary Washington State MRW law is the Hazardous Waste Management Act (Chapter 70.105 RCW). It requires each local government, or combination of contiguous local governments, to prepare a hazardous waste management plan for MRW generated or present within the jurisdiction. This law also directed Ecology to prepare the Washington State Dangerous Waste Regulations (Chapter 173-303 WAC). The Dangerous Waste Regulations (DWR) incorporates the Federal Resource Conservation and Recovery Act regulations pertaining to hazardous waste management (Subtitle C, Hazardous Waste Management). Household MRW is exempt by definition from the DWR (WAC 173-303-071(3)(c)).

Commercial generators that produce hazardous waste in Washington are conditionally exempt from the Dangerous Waste Regulations if they generate dangerous waste in quantities less than 220 pounds per month or per batch or extremely hazardous waste in quantities less than 2.2 pounds per batch. A conditionally exempt commercial generator can lose this exemption and become a regulated generator if the quantity accumulated on-site exceeds, at any time, these quantity exclusion limits from any single waste or combination of wastes.

In order to comply with WAC 173-303-070(3), commercial generators in Washington are required to dispose of hazardous waste either by treating or disposing of the waste in an onsite facility or ensuring delivery to an off-site facility. Disposal of “toxic waste” into the Skamania County solid waste system, in any quantity is prohibited.

State policy regarding the siting and construction of permanent MRW collection facilities is described in the 1990 issue paper prepared by Ecology, entitled, “Regulating Household Hazardous Waste and Moderate Risk Waste Fixed Collection and Storage Facilities.” This paper states that MRW produced by households and conditionally exempt small quantity generators are regulated as solid waste because it is not, by definition, regulated as hazardous waste. This distinction implies that any facility collecting or storing MRW produced by households or conditionally exempt SQG’s is regulated by solid waste laws, including the Minimum Functional Standards for Solid Waste Handling (Chapter 173-304 & 350 WAC).

There are several important implications of this regulatory interpretation. The first is that co-location of solid and MRW collection facilities are acceptable to Ecology.

A second important implication is that this policy assumes that collectors must be able to verify that only non-regulated MRW is accepted at collection facilities or events. If state regulated dangerous or extremely hazardous waste is accepted, a facility is “subject to, and in violation of, the “Dangerous Waste Regulations.” Ecology does not define what level of verification is

required. Likely, verification could include certification by the facility users that the waste originated in a household, or from a commercial generator that has exempt status and is not exceeding the quantity exclusion limits. Some SCEH and local enforcement capability may also be required.

Municipalities that collect and dispose of household MRW wastes are exempt from federal and state hazardous waste management regulations under RCRA and Chapter 173-303 WAC, but this exemption is subject to various limitations. A municipality is exempt if all the wastes collected are exempt and no hazardous waste from a regulated generator is mixed with the exempt wastes. If these wastes are mixed, the entire mixture is regulated under both RCRA Subtitle 'C' and Chapter 173-303 WAC. Also, as mentioned above, if a municipality receives waste from a regulated generator, the municipality can become subject to federal and state hazardous waste regulations. Once these wastes are removed, the municipality may re-qualify for conditionally exempt status. It should also be stressed that exemption from regulations developed under RCRA does not negate a municipality's financial liability under RCRA or the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Although collection events for hazardous waste produced by households are not subject to federal and state hazardous waste regulations, Ecology recommends using the same controls and procedures contained in the dangerous waste regulations for the management of this type of program.

In addition to the Washington State Dangerous Waste Regulations, municipalities must, as stated above, also comply with CERCLA and the Superfund Amendment Reauthorization Act (SARA). CERCLA was originally promulgated in 1980, but was amended in 1986 by SARA. SARA does not contain an exclusion from liability for household MRW or exclusion based on the amount of waste generated. Potential liability under SARA exists whether the wastes are collected as part of a community's regular solid waste collection services and disposed of in a solid waste landfill or collected as part of a special collection program and taken to a hazardous waste landfill. The importance of this issue to a municipality considering operation of a collection facility or collection program is that the municipality will always retain "ownership" of the waste under SARA, no matter how it is handled, transported, or disposed.

Local regulation of MRW in Skamania County is currently limited. In general, county agencies rely on state and federal regulations regarding hazardous waste management. The Skamania County code, Chapter 8.08 limits disposal of hazardous or potentially hazardous waste at disposal sites without approval of the health officer and the director. Regulated sources, quantities, and waste types are not specifically defined in the ordinance.

7.4.2 Federal Laws

Resource Conservation and Recovery Act (RCRA) – Established in 1976, RCRA provides a comprehensive framework for managing solid and hazardous waste so as to eliminate or minimize public health threats and environmental contamination. RCRA was modified by the Hazardous and Solid Waste Amendments (HSWA) in 1984. HSWA revised the minimum technical standards for the design and operation of solid waste facilities as a result of concerns about the disposal of unregulated quantities of hazardous waste at municipal landfills.

Universal Waste Rule - In 1995, the EPA adopted the UWR, 40 CFR Part 273, to allow generators of certain hazardous wastes to use alternative regulatory requirements for those wastes in place of the more complex hazardous waste requirements. Wastes covered by the UWR (UWR) are typically generated in small quantities by numerous businesses. They include batteries, mercury-bearing thermostats and fluorescent lamps. UWR are intended to promote recycling as well as proper disposal, and they ease some of the regulatory requirements for storing, collecting, and transporting universal wastes.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - CERCLA, more commonly known as the “Superfund” act, complements RCRA by providing for the cleanup of sites contaminated by hazardous waste.

Hazardous Materials Transportation Act and the Hazardous Materials Transportation Uniform Safety Act, which regulate the transportation of hazardous materials, including wastes.

Toxic Substances Control Act, which regulates the manufacture, distribution, use, processing and disposal of chemical substances and mixtures posing unreasonable risks of injury to human health or the environment.

Federal Insecticide, Fungicide and Rodenticide Act, which regulates the manufacture, use and application of pesticides.

Safe Drinking Water Act, which sets maximum contaminant levels for drinking water supplies, including surface and groundwater sources.

Clean Air Act, which regulates air pollutant emissions. A federal rule effective March 12, 1996 established standards of performance for new municipal solid waste landfills and emissions guidelines for existing landfills. Control of emissions of methane and other organic compounds is the focus of this rule.

Clean Water Act, which regulates discharges to waters of the state through: The National Pollutant discharge Elimination System, (a) permit program that regulates discharges of pollutants to navigable waters, and (b) pretreatment standards that regulate discharge to publicly-owned treatment facilities.

7.4.3 State Laws

The Solid Waste Management Act regulates solid waste handling and disposal. This law requires the development of a statewide solid waste management plan and local solid waste management plans. It also establishes minimum functional standards for solid waste handling and disposal and criteria for siting solid waste facilities. This statute establishes a waste management hierarchy similar to the HWMA, waste prevention and recycling are its highest priority management options and land disposal its last option.

The Hazardous Waste Management Act (HWMA) - The (HWMA), 70.105 RCW, regulates the transport, treatment, storage and disposal of hazardous waste. The statute requires a

comprehensive statewide hazardous waste plan; local hazardous waste management plans; dangerous waste regulations that address hazardous waste generation, handling and disposal; criteria for siting hazardous waste management facilities; and identification of local areas that meet siting criteria and zoning for hazardous waste management facilities.

Ecology has provided rules to implement the HWMA. The Dangerous Waste regulations, Chapter 173-303 WAC, address the designation of dangerous wastes and the requirements for generators, transporters, and facilities handling these wastes. Waste generators must identify hazardous wastes at the business site, properly store and label wastes, and ensure that wastes are handled by qualified transporters and are disposed at a permitted facility. Generators are responsible for their wastes until such point as the wastes are no longer hazardous. Failure to comply with requirements can result in civil and criminal penalties.

Criteria for siting hazardous waste management facilities: Locally designated areas that meet the siting criteria. These areas must be zoned or otherwise identified to allow siting of future hazardous waste management facilities.

The Washington State Department of Ecology has issued rules implementing the HWMA, Chapter 173-303 WAC. Dangerous Waste Regulations address the designation of dangerous wastes and requirements for generators, transporters and facilities handling or managing these wastes. The Dangerous Waste Regulations are amended periodically to improve the hazardous waste management system, streamline requirements and to incorporate changes to federal rules adopted under RCRA.

Similarly, changes to the definition of hazardous waste also affect the generators' regulatory status. For instance, waste antifreeze is no longer counted as a hazardous waste when best management practices, such as recycling, are used. Many generators have become exempt from hazardous waste regulations by reducing their generation of hazardous waste through pollution prevention planning and technical assistance.

The Model Toxics Control Act provides for the identification and cleanup of hazardous waste sites in Washington State. The Act assigns liability to certain parties for damages to the environment and human health, provides enforcement authority for the Department of Ecology and establishes penalties for failure to comply with Ecology's orders.

Local Laws

Most local jurisdictions and the County have other ordinances that refer to hazardous waste management through a variety of authorities, including solid waste management, sewer/septic, stormwater and surface water, fire and emergency response, land use and zoning, nuisance abatement and drinking water/groundwater.

Used Oil Recycling Act - The 1991 Used Oil Recycling Act, Chapter 70.95I RCW, required each local hazardous waste management plan to establish used oil collection sites based on local goals, enforce sign and container requirements, educate the public on used oil recycling, and create funding estimates for used oil collection. Local governments must also submit annual reports to Ecology describing the number of collection sites and amounts of used oil collected

from households. Requirements for transport, treatment, recycling and disposal of used oil are also specified in the Used Oil Recycling Act.

Electronic Product Recycling Act - In 2006, the Washington legislature passed the Electronic Product Recycling Act, RCW 70.95N, requiring a convenient, safe and environmentally sound system for collecting and transporting covered electronic products. Covered electronics include televisions, computers, computer monitors and portable or laptop computers. The statute mandated a system that encouraged the design of less toxic and more recyclable electronic products and that shared responsibility for the system among all stakeholders. Manufacturers must finance the collection, transportation and recycling system. Regulations set by Ecology in WAC 173-900 govern program implementation.

The Used Oil Recycling and Disposal Ordinance was adopted by the SWWHD in March, 1994. The ordinance complies with the state Used Oil Recycling Act requirement that local governments adopt regulations requiring motor oil retailers to post signs informing the public about local used oil recycling locations. The ordinance also requires motor oil retailers to make reusable oil recycling containers available for purchase.

The Used Oil Recycling and Disposal Ordinance also requires persons generating used motor oil or other lubricating oil through household activities in Skamania County to manage the waste product through appropriate methods. And, it provides for enforcement of the ordinance by the SCEHD.

Enforcement regulation No. 96-01, adopted through the SWWHD in 1996, applies to moderate risk waste enforcement activities and provides enhanced enforcement capabilities for staff.

Other Acts, etc.

State and federal regulations govern exposure to hazardous chemicals and require employees to be provided with hazardous substance training and information under worker “right-to-know” laws. This training is required through the **Federal Occupational Safety and Health Act** (OSHA) via the **Washington Industrial Safety and Health Act** (WISHA). These acts require proper labeling of hazardous materials and making information available to workers on the potential dangers associated with exposure to hazardous materials.

Workers handling hazardous waste, including those working at HHW collection sites, are required to undergo health and safety and hazard communication training. Hazardous waste transporters are also required by the U.S. Department of Transportation to take a hazardous materials course.

Local operators of solid waste and wastewater facilities are required to train their employees in worker “right-to-know” requirements, blood borne pathogens, hazardous materials awareness and asbestos awareness. Additional training may include hearing conservation, use of protective equipment, CPR and first aid.

Emergency Response.

Skamania will respond to abandoned hazardous wastes through a coordinated approach

involving other agencies and the state spill response program. Response to an accidental discharge of hazardous materials is provided through cooperative effort by local fire districts, law enforcement agencies, local emergency coordinators, and others.

When a spill or other release of hazardous material is identified, local officials first contact the fire district in the afflicted jurisdiction. The fire district provides first response to assess the state of the emergency, cordon off the area (if necessary), identify responsible parties, and coordinate cleanup. Each fire district may be assisted in this task by local law enforcement agencies, local government officials, and/or the Skamania County Department of Emergency Service Coordinating Agency (ESCA). The ESCA provides management assistance to responding agencies for activities such as identifying responsible parties and coordinating with private enterprise for spill cleanup.

Skamania County agencies do not perform spill cleanup. The SWMD will notify the state as required once the spill is reported. If a responsible party can be identified, local fire districts will request that the responsible party provide spill management and cleanup. If the responsible party does not provide management and cleanup, local fire districts may contract with private enterprise for cleanup and bill the responsible party. If cost recovery is not obtained from the responsible party, county taxes or other available revenue resources are called on for payment of cleanup cost.

The county shall acquire adequate disposal sites and facilities or contract for the disposal of all solid waste (which includes hazardous wastes) generated and collected in Skamania County and the municipal corporations situated therein. Such disposal sites, facilities and contracts shall be consistent with the comprehensive plan, and all federal, state and local requirements.

7.4 Needs and Opportunities

The county government recognizes that in the larger organization of moderate risk waste there are two significant components. One is the **administrative** aspect of solid waste management and the other is the **infrastructure**, programs/facilities designed to support the existing/future operations. The administrative component has two key elements. The first element, cooperation is implemented whenever the County plans and administers programs with other local jurisdictions, regionally and with other agencies. The second element, leadership is when the county government accepts responsibility for its own actions by implementing the recommended programs.

7.4.1 Administrative Component

Cooperation:

The opportunities associated with administrative cooperation include Education, Enforcement, Ordinances and where duplication of efforts/expenditures can be eliminated. For example, in the previous Moderate Risk Waste Plan it was recommended that the Southwest Washington Health District serve as lead agency responsible for coordinating and overseeing implementation of all elements of the plan except operations at permanent hazardous waste drop-off stations. The regional agency was selected as the lead to take advantage of the economic and administrative efficiencies. The professional expertise of the SWWHD staff allowed for programs to be

conducted more efficiently to include annual household collection events, a household hazardous waste education program and a business technical assistance and education program. At the same time the County could develop educational and informational programs that target geographic areas, specific MRW materials, generator and residential sectors or a combination of the three.

The Health District would also be responsible for enforcement activity and, would staff the County Solid Waste Advisory Committee representing the Hazardous Waste Regulatory Task Force and Coordinating Committee. The resulting Health District regulations or resolutions would be presented to the jurisdictions as recommended model language for adoption.

Within the County, cooperation is necessary as regulations become more complex and solutions are multi-departmental. For example, stormwater regulations impact the operations of small quantity generators. The technical assistance provided to the SQG for collection and storage of moderate risk waste by the SWMD may also reduce the risk of stormwater runoff contamination. Combined technical assistance visits will reduce duplicity across divisions and may reduce costs.

Leadership:

The opportunities associated with administrative leadership include closing the loop by buying recycled content products for use in county government, including city governments and local agencies through Interlocal agreements. The county can mandate toxic reduction for those county programs that generate MRW (e.g. county district shops). The County should continue to support the oil recycling/energy recovery programs. Another example of administrative leadership is where Clark County and the City of Vancouver operate its fleet vehicles on re-refined oil. Collection day events can also be incorporated into the local fire departments training programs as spill responders or as hazardous waste clean-up personnel.

Infrastructure Component:

Used Motor Oil/Antifreeze and Batteries

The existing moderate risk waste infrastructure includes the collection of used motor oil and antifreeze at the three drop-off locations identified below:

- **Mt. Pleasant Transfer Station**
1111 Mt. Pleasant Road.
Phone: 837-3329
- **Stevenson Transfer Station**
1332 Ryan Allan Road
Phone: 427-3926
- **Underwood Transfer Station**
1402 Little Buck Creek Road
Phone: 493-3313

The pumping truck collects DIY used motor oil from these sites as well as collecting used motor oil from the County District Shops. This oil is used to heat the Material Recovery Facility (MRF) located at the Stevenson Transfer Station.

Collection Events:

The existing program that provides both households and businesses the opportunity to dispose of their moderate risk waste conveniently, economically and appropriately is the annual collection event.

Energy Recovery:

An environmental contractor recycles the county recovered oil collected from the sites.

Reuse:

The county previously recovered antifreeze collected from the sites and taken to the County District Shop #1 where it was recovered and reused. Current practice contracts with an environmental service that processes it into a reusable product.

Education:

Households/Small Quantity Generators

The potential consequences of improper management of HHW/SQG waste include poisoning and safety hazards; contamination of the environment through storm drains, septic system discharges, runoff, and other indiscriminate storage and disposal. Other improper management consequences include worker injury during collection at solid waste and wastewater facilities; damage to waste collection, transfer and disposal equipment and facilities; potential for causing permitted facilities to exceed discharge limitations; and contamination of waterways by waste passing through treatment systems.

There continues to be a need to inform residents and businesses of the public health and environmental consequences associated with indiscriminate storage and disposal of hazardous wastes. Education programs need to stress the importance of each person assuming responsibility for reducing the generation of waste, and for properly managing the wastes that are produced. Based on the assumptions above and compared to the annual disposal records there is an opportunity for improvement within the existing county programs.

More than 50 tons of household hazardous waste is unaccounted for per year. No information is available for SQG's waste volumes, but upwards of 3,000 to 7,000 gallons of used motor oil could be generated each year. More than a half-ton of waste oil has been identified in the solid waste stream. Over 800 gallons of DIY used motor oil is unaccounted for. Over 800 gallons of service station used motor oil cannot be accounted for. No information is available for waste antifreeze.

It is likely that not all waste generators are properly informed of hazardous waste rules and regulations, how to effectively reduce waste generation, or how to properly manage all hazardous waste produced. Education and technical assistance should continue to be provided to improve awareness, and promote pollution prevention as well as improved management of hazardous materials and wastes.

Several successful programs have been implemented in the County. But to continue to reduce

threats to public health and the environment opportunities to conveniently and properly dispose of hazardous waste must remain available. Skamania County should supplement private sector services by continuing to provide annual events for the collection of HHW and SQG wastes.

Efforts to increase participation by residents should continue. It is important to monitor the use of the MRW collection events (and drop-off oil, antifreeze and vehicle batteri sites) by residents from all regions of the county to determine if any areas are under served. If use of the MRW collection events by residents in any area is not reasonably representative of the area population, supplemental efforts – such as special targeted HHW collections may be implemented. Additional efforts may include enhanced publicity or educational efforts.

At the same time, opportunities to reduce waste management costs should be pursued. If SQG's were required to cover the cost of disposal, it would still be a cost-effective way for businesses to conveniently and properly dispose of hazardous waste produced in small quantities. Efforts to increase collection day event participation by businesses and institutions should continue if such services are not reasonably available through the private sector.

The County could develop information and education efforts to include:

- Programs that focus on geographic areas and specific sub-areas such as wellhead protection areas. SQG's within a small area could be contacted while a similar outreach effort is developed for households. A focused effort could be the development of a database that would allow the County to identify MRW generation characteristics by geographical area.
- Programs that focus on specific MRW materials or a specific target audience. Targeting educational programs by material also would allow the County to approach manufacturers' associations for technical and financial support. Priority could be placed on materials that pose particular disposal problems due to quantity, cost or toxicity.
- Specialized programs and educational materials that focus on generator sectors. All MRW practices for each sector could be addressed at once. Generator sectors may include automotive service, treatment plants, district shops and others.

As in the past, the county should continue to use state provided camera-ready copy for brochures and information flyers, when available/applicable. Local educational materials designed by surrounding counties may have regional information readily adaptable for use in this county. Cooperative efforts regarding technical assistance to small quantity generators may include the private sector.

State law requires that local governments implement educational programs, that education is an important part of a successful moderate risk waste program. It is not an alternative program that is weighted against another. However, there are several alternatives in how the public is reached. Examples of media include radio, television, newspaper articles or inserts, windshield flyers and door hangers, speaking engagements and county sponsored events such as a booth at the fair.

The county efforts should be concentrated into three areas: **Information** (e.g. announcing a collection event), **Education** (behavioral modification), and **Technical Assistance** (best management practices). Three audiences targeted include adults (home generators), businesses

(small quantity generators) and school aged children, K-12 (the future generation). While not formally discussed separately in the alternatives section, the continuation of the existing, effective programs is necessary to maintain the recycling levels currently enjoyed and to pursue more stringent goals.

The county should be aware of innovations in educational, informational and promotional materials and should develop new programs (as needed) or augment existing MRW programs based on this information.

Enforcement and Evaluation:

Emphasis should continue to be placed on bringing about improvements to SQG and HHW management practices through education, technical assistance and incentives. Compliance and enforcement actions should be pursued where significant threats to public health or the environment are present, and when other actions or remedies to bring about compliance were not successful. As necessary, actions may be referred to state and /or local agencies for enforcement support.

Some businesses may be reluctant to use Skamania County's MRW services out of concerns that regulatory or enforcement approaches will be used as the primary tools to obtain compliance. Continuing the practice of providing technical assistance and education in a helpful manner should reduce this concern, and encourage businesses to participate in MRW programs.

Reporting and evaluation are needed to identify baseline conditions, to assess performance and impacts of programs, to set priorities, and to refine program activities. Outcome based objectives should be defined in conjunction with project work plans, and should be coordinated with other impacted plans; and among county programs to optimize efficiency. The nature and level of evaluation that is cost-effective should be determined – ensuring that information necessary to monitor and improve MRW programs is gathered, while maintaining the balance of funds for delivery of services.

There is limited information available to characterize hazardous materials/hazardous waste management practices, and the types and quantities of hazardous waste produced by residents, businesses and institutions. In addition, there are gaps in the information defining the number and types of certain MRW generators, such as residential used motor oil “do-it-yourselfers.” This information may be obtained in part by Skamania County, but should be supplemented through research by Ecology and in conjunction with regional activities in neighboring counties.

Complete records should be kept to provide used antifreeze baseline information on generation and management practices. To fully evaluate the County's Used Motor Oil Collection program, surveys and technical assistance efforts should continue to provide baseline and follow-up information on generation, sources and management practices.

Funding:

The MRW program is currently funded disposal fees. Future funding for this program will come from the general fund at the request of the commission. Given the breadth and scope of the MRW program, the existing waste products and the county's concerted effort to collect

increased volumes, alternative or supplemental funding sources should be examined and pursued to ensure an adequate and reliable source of funding for MRW programs.

7.5 Program Alternatives

MRW programs have targeted broad HHW and SQG generator populations, supported by specific programs, such as fair booths and technical assistance. During the first few years of program implementation, HHW programs focused on disposal of hazardous waste in the solid waste stream. Throughout the state the focus has now shifted to address surface and ground water quality protection, and non-point source pollution prevention. Now that these broad programs have matured, additional effort will need to be made to further refine and target MRW programs. For example, additional efforts could be focused on:

- Sensitive geographic areas, such as wellhead protection districts.
- Waste reduction efforts for items with high disposal costs or no recycling opportunities.
- MRW materials with the largest waste stream impacts.
- Moderate risk wastes that pose the largest threat to health and the environment.
- Cost Effective Recycling and Disposal.

The County has incurred significant costs for the recycling and/or disposal of wastes handled through existing HHW collection programs. Opportunities for alternative recycling and disposal will need to be considered as recycling technologies advance. New opportunities may be available for latex paints, solvents, household batteries and other materials. Portland Metro initiated a latex paint recycling program in 1992 and currently produces 18 color varieties and meets quality standards set by Green Seal™ and the Master Painters Institute. The County could enter into an intergovernmental agreement, allowing all household latex paint to be sent to the Metro facility. Once Metro's latex recycling costs are fixed and the product is standardized, the County should compare rates. As encouraged in the Metro program, some of the recycled paint may be returned to the County for re-distribution, free-of-charge, for use by local nonprofit groups and government agencies.

The State of Oregon passed industry sponsored paint product stewardship legislation in 2009 and implemented the program in 2010. Since the implementation of the program, the transportation and disposal costs incurred by local governments for paint management have went away. Similar legislation in Washington has failed in 2012 and 2013. Passage of this type of legislation in Washington would save Skamania County transportation and disposal costs for the latex and oil based paints collected at the annual collection event totaling approximately \$5000. Additionally, the program would provide more convenient year round collection opportunities for Skamania County residents and SQG's by utilizing paint stores as collection sites further reducing the burden on county resources to collect and manage this high volume waste stream. In 2011, the annual collection event collected a little over 13,000 pounds of latex and oil based paints. This is approximately 57% of the total volume collected at the event. The monies that could be saved by this program could then go to fund other county programs. The county should consider formally supporting this legislation in upcoming years through the adoption of a local resolution and/or providing support letters to local legislators.

7.5.1 Organizational Management: Administration/Leadership

Cooperation and Leadership:

Several local governments and neighboring agencies have cooperated to play a vital role in this Plan's development, and will continue to play such a role in the Plan's implementation. Many of the activities outlined in this Plan will be undertaken by both the Solid Waste Management Division and by the Environmental Health Department. While the role of the Health Department is identified for specific activities, it is the Plan's intent that the Health Department be involved in all activities with significant public health implications. Furthermore, although enforcement of moderate risk waste laws and regulations are not explicitly mentioned elsewhere in this plan, the plan considers such enforcement to be necessary. The Health Department is the agency that has and will continue to enforce these regulations.

The Cities of Portland and Vancouver, Metro and the I-5 corridor:

Recognized as a metropolis, it provides the County with alternatives currently unavailable in this rural area. The County should take advantage of the permitted facilities, regional outreach activities, and emerging technologies.

MRW Reuse:

Many MRW materials delivered for disposal can be reused. If the associated operational and liability issues are successfully addressed, MRW reuse would increase, and disposal costs would be lowered, provided the reusable materials were made available at existing MRW collection event sites, or in the future, at a permanent site or through a listing program.

Hazardous waste material exchanges are well established in the Pacific Northwest. Exchange services publish periodic lists of wastes, or products, available or wanted. After a connection is made through the waste exchange service, wastes reshipped directly between generator and user. This approach avoids the liability of centrally storing wastes from various generators and the risk that the material will not be reused. The County could support a regional version in cooperation with the Metro area. Portland Metro offers a program called "Pass It On." Organizations such as local governments, public schools, nonprofit groups and thrift stores can request specific types of wastes or products, then recipients are contacted by Metro to arrange pick up when the item(s) become available.

Economic Incentives:

The costs of MRW management will need to be better incorporated into product prices that are paid by households and businesses. If hazardous products are priced to include some or all of their associated MRW costs, manufacturers will have a direct incentive to reduce product toxicity, and consumers will be encouraged to use less toxic alternatives. However, with the proximity of the Portland Metro area, economic incentives would have to be addressed on a regional basis.

Agency Coordination:

The original purpose of the joint county Hazardous Waste Agency Coordinating Committee was to coordinate and evaluate the implementation of the Moderate Risk Waste Program and to coordinate those activities with other local programs. Though initially headed by the SWWHD, Skamania County Public Works is now the lead agency. The County needs to take a stronger

role regarding MRW Program oversight and interagency coordination. The SWAC Committee is the forum now used to improve coordination of MRW issues. While various local agencies and programs, including Fire, Buildings, Emergency Services, Solid Waste, Small Quantity Generator Technical Assistance, Pretreatment, Air Quality and Water Conservation often conduct site visits or facility inspections for various reasons, some attempt to coordinate these visits and share data among programs is necessary. Better coordination and information sharing among these agencies is highly recommended to save time and resources. Local Interagency Networking Cooperative (LINC) meetings are held in Clark County to coordinate between agencies business environmental assistance issues. Ecology provides field office staff specialists in toxic reduction and hazardous waste management. They are located in the City of Vancouver and offer support services to Skamania County.

Re-refined Oil Campaign:

The availability and use of re-refined oil needs to be increased throughout the county. An education campaign, targeting the automotive service industry, could be developed to promote environmentally sound business practices and consumer products that help reduce pollution and recycled products, such as re-refined oil and re-tread tires. Auto supply retailers should also be encouraged to offer re-refined motor oil. The opportunity to use re-refined motor oil in local government fleet vehicles should be investigated to insure cost effectiveness and that warranties are not affected.

7.5.2 Organizational Management: Infrastructure

Drop-Off Sites For Used Motor Oil, Antifreeze and Batteries:

The successful, current County oil, antifreeze and vehicle battery collection program will be maintained, and additional collection sites added when needed. The goal is to eliminate improper disposal of used oil and antifreeze, and the drop-off sites are a vital element of the Plan.

The SWWHD will continue to inspect and permit these sites in accordance with current and future federal, state and local regulations.

Collection Events:

The County will continue its events for collecting and disposing of household MRW. The budget does not include disposal costs associated with the collection of latex paints. Despite its high cost, this program is successful and represents the only disposal method for household generated hazardous wastes.

If there is a need identified, as determined by survey during collection events, that shows areas of the county are under-served, the collection event system should be evaluated to determine adequate collection of HHW materials in the more distant locals.

7.5.3 Education: SQG/HHW

Information/Education:

Adult education should appear as a constant reminder to County residents, plus to the county's population that continues to grow. Programs need to be developed to inform these new residents about proper MRW management, including source reduction, storage, recycling and disposal

opportunities. When people move out of their homes, they often leave or throw out unwanted products, including household hazardous wastes. Education materials on household hazardous waste management could be developed to specifically target those who are moving out of homes. Implementation could be in cooperation with real estate agencies. Education programs are vital to the success of HHW management and collection programs. Those currently being offered, including publications, portable displays and workshops and presentations, should continue to provide on-going and new information to the public. The County should provide informational and educational handouts, newsletters, brochures, and stickers, etc. as appropriate to meet this demand. Due to recent legislation regarding waste volumes generated, it is possible that the numbers of SQG's has increased. Because of a lack of information among small businesses about how to properly manage hazardous waste and about what types of waste are considered hazardous, industry specific education programs should continue.

MRW Waste Reduction:

More educational opportunities are needed for teaching households, businesses and institutions about MRW waste reduction. This education needs to address the reduction of quantities and toxicity of MRW and promote the availability of non-hazardous alternatives and should include information on hazardous product labeling, label reading and interpretation. While the banning of the sale and distribution of products that endanger the natural and human environment at the county level is difficult due to interstate commerce, licensing the purchase and use of hazardous produces is viable. Licensing has the advantage of preserving the ability to continue use of products for which safe, suitable and cost-effective alternatives do not exist, plus avoiding problems inherent in ban enforcement.

Chemical-Free Gardening:

Although garden and lawn chemicals comprise a comparatively small part of the total household hazardous waste stream, disposal costs for these wastes are very high. Improper use and disposal of these chemicals pose greater risks to human health and the environment than other components of the household hazardous waste stream. Therefore, additional programs are needed to support source reduction of gardening and lawn products and to encourage non-hazardous alternatives

Institutional MRW Management:

Increased educational efforts are needed for public agencies and institutional facilities, including schools. Facilities maintenance shops, grounds maintenance, motor pools, automotive and mechanical educational programs and shop classes are all examples of institutional services or programs that generate MRW. Educational efforts should encourage moderate risk waste and toxicity reduction; the use of alternative products; and the proper management of remaining wastes. Classroom presentations should be targeted by age group for message content.

Business Technical Assistance:

Disposal of hazardous waste in the solid waste stream may either mean that proper handling methods are not known, are inconvenient or are too costly. This demonstrates a need to continue education programs for small quantity generators aimed at proper hazardous waste handling methods. Business technical assistance programs should be continued, targeting specific geographic locations and business sectors, with additional attention given to the construction

sector. Education could include information about new waste reduction and recycling technologies that are not being used by the targeted businesses. Avenues for information include brochures, workshops, on-site visits, newspaper articles and videos. Another alternative is information provided via a web site such as Ecology's HWTR website where a SQG could find some very valuable information. These are <http://www.ecy.wa.gov/programs/hwtr/P2/ta.html> and <http://www.ecy.wa.gov/programs/hwtr/managewaste.html>. The county should have a web site specific to public works services. The web site could list available educational materials, upcoming workshops and conferences, hazardous waste service providers, names and phone numbers of staff to contact for technical assistance and links to related web sites. Other benefits of a web site are that it allows a business to obtain information without directly contacting a government regulator; it's accessible 24 hours a day; and it can be updated frequently. If updated waste generator profiles were available, enhanced educational programs for SQG's could be developed and the suitability of Moderate Risk Hazardous Waste disposal alternatives could be evaluated. If additional MRW disposal alternatives are needed to increase diversion, additional or expanded facilities could be considered. A lack of participation in collection programs may mean that the general public doesn't know and/or understand the human health and environmental hazards that can result from the misuse and improper disposal of hazardous household products.

Increase Collection of Household Hazardous Waste:

With HHW collection program participation levels at 3% per household (Dept of Ecology 2011 Annual Solid Waste in WA Report – MRW Chapter) there is still a need for education on proper disposal methods. It may also indicate that few county residents are aware that the County hosts hazardous waste collection events.

Additional Moderate Risk Hazardous Waste Materials:

Existing oil/antifreeze and vehicle battery collection sites could be enhanced to handle additional HHW materials, such as, oil filters from DIY oil changers and dry-cell household batteries (point of purchase exchange). The Stevenson Transfer Station is site near the largest populated area in the county, where it may eventually be necessary to operate a permanent, permitted MRW facility capable of handling the spectrum of moderate risk wastes. Toxicity, percent of the waste stream and cost versus benefit will need to be considered for each potential HHW material considered for collection. As baseline data is accumulated and evaluated, it will become easier to evaluate the need for a permanent facility.

Lighting products:

At least one company, Ecolights Northwest in Seattle, accepts a wide variety of lighting products, including fluorescent tubes, U-tubes, circular bulbs, HID lamps (metal halide, mercury vapor and sodium vapor), PCB-bearing lighting ballast, non-PCB-bearing lighting ballast, thermostats and thermometers. A list of fees for specific types and packing methods for lighting products is available. According to Ecolights Northwest, discarded lighting products are recognized as the second largest source of mercury contamination in the municipal solid waste stream and are probably the easiest to recover and eliminate. These materials are also collected at the annual HHW collection event at no charge to the customer.

Additionally, in 2010 the Washington Legislature passed the law for Mercury-Containing Lights

- proper disposal (Chapter 70.275 RCW). This law establishes a producer-financed product stewardship program for the collection, transportation and recycling of mercury-containing lights. As this program gets implemented, it may reduce the burden on local resources to collect and manage this hard to handle waste stream

Oil filters:

Many Treatment, Storage and/or Disposal facilities accept oil filters. Philip Services Corp. processes and recycles oil filters by first draining the oil, and then crushing them through a high-pressure compactor. If at an unattended drop-off location, collection of oil filters should be done so as to keep other materials out of the collection container. A system, such as a lined drum that allows for drainage of the filters may be feasible at drop-off locations.

7.5.4 Enforcement and Evaluation

Program Monitoring and Evaluation:

There is a need for improved data collection methods and ongoing program assessment activities to track program costs and results. Results could be measured comparing quantities recovered through MRW collection events. Even more sophisticated tracking is attained through periodic waste composition studies -- either by the County, in cooperation with neighboring counties or in conjunction with other studies. Improved evaluation procedures will assist the county in determining which programs should be enhanced or replaced during the planning period.

Relevant information will determine:

- Public awareness of MRW alternatives and management options.
- Number of households and small quantity generators participating in the existing program.
- Amounts and types of MRW generated.
- Numbers and types MRW generators.
- Numbers and Types of disposal options available, including costs.

In addition to measuring quantities of waste accepted at annual collection events, the County could continue to conduct waste stream characterizations, including the hazardous waste component, segregated by households and businesses. By comparing the data over time, the County would be able to evaluate whether education and collection programs are having an impact on the amount of moderate risk waste in the solid waste stream.

SQG Waste Profiles:

Previous attempts have been made to maintain a SQG database with the types and quantities of wastes and disposal methods for each generator. Lack of staff time and necessary information has made these attempts unsuccessful. A renewed effort is required to improve and update the county's SQG database for more effective program implementation and targeting. More complete information would enable the county to build better generator profiles and help to target moderate risk wastes that have the highest toxicity or are produced in the largest quantities.

Small Quantity Generator Hazardous Waste Collection:

The county needs to assess whether it should provide SQG hazardous waste collection

opportunities beyond those presently offered, county collection events or by the private sector. If the need for a permanent facility is identified, and additional collection opportunities are needed, a method to pay for collections can be established. Considering the expense and the availability of other less expensive options, small quantity generators usually have little economic incentive to use the services of waste disposal companies. Often landfills, storm drains and public sewers become “free” and convenient disposal sites, regardless of how inappropriate and detrimental to the environment they are. A range of incentives that would encourage proper disposal of hazardous wastes by SQG’s needs to be investigated. One option would be to better publicize the existing service provided by Philip Services Corporation. The County could develop compliance workshops, a business awards program, and/or a business directory. The workshops could explain the complex legislation regarding hazardous materials and reinforce the benefits of retaining SQG status.

Self Audits:

The County could, in cooperation with neighboring agencies and local governments, develop and supply to businesses self-audit materials that would enable them to assess their MRW management needs. This approach is a cost-effective way to reach generators who are interested in regulatory compliance and willing to voluntarily research and implement MRW programs. Self-initiated programs should be rewarded. For example, the County could provide a tax credit to businesses upon proper disposal of hazardous materials.

Regulatory Fines:

The above monitoring and evaluation alternatives provide the information necessary for the county to conduct an effective education and technical assistance program. If however the willingness to voluntarily provide protection to human health or the environment is not evident, the County could assess regulatory fines that would further encourage compliance.

7.5.5 Funding

Long-term Funding:

There is a need to develop long-term dedicated funding sources to support MRW programs. There are no local funding sources currently dedicated to managing moderate risk waste. In the past, funding has been available in limited amounts from the Department of Ecology for 75% of the program costs. The local match has come from the County’s General Fund. The amount of grant funding is very limited and therefore general funds are used for this program. Addition funding sources need to be found to insure continued future collection efforts.

MRW Public Outreach Coordinated with the Solid Waste Program, etc. (1 FTE)

There is a need to employ a moderate risk waste coordinator to implement the recommendations found in this Plan. This specialist could be the county liaison to the solid waste program (and/or other County programs) as well when distributing or presenting informational, educational or promotional materials.

Point-of-Disposal Charges:

The County could develop, as needed, a program which requires disposal charges as a direct user fee at the MRW collection events (fixed facilities, etc.). This approach shifts some or all of the

MRW management costs to generators. While in theory these fees might encourage waste reduction to avoid disposal charges, generators may redirect their MRW into the municipal solid waste stream or to dispose of it illegally or improperly.

7.6 Recommendations

Skamania County and the Cities of North Bonneville and Stevenson have implemented many of the recommendations listed in the MRW Management Plan. The Plan's recommendations address several key areas and include a recommendation for actions by the Department of Ecology. Each area was identified for its potential to meet the objectives of the Plan, as stepping-stones to fulfilling the goals of the Plan. Full implementation of the recommendations depends upon:

1. A County commitment to the success of each program.
2. A regional approach.
3. Adequate funding through local and state sources.

Should funding not be fully available to support these recommendations, specific activities will be reduced or eliminated.

It is highly recommended that prior to making changes to the program's current activities, the SWMD should develop a comprehensive set of data that would be used to provide the County with direction in implementing future programs and actions. A comprehensive data base would contain relevant information about both residential and small quantity generators within the County and would evaluate the following trends:

- Public awareness of MRW alternatives and management options.
- Amounts and types of MRW generated.
- Numbers and types of generators of MRW.
- Numbers and types of disposal options available, including costs.
- Identify and study other indicators as deemed necessary.

7.6.1 Required Activities

State law (Chapter 70.105 RCW) requires that the County implement certain activities to meet the criteria of Local Hazardous Waste Plans. In order for the County to be in compliance with State law, these activities will continue to be implemented. These activities are: Managing generated MRW (including an assessment of quantities, types, generators and fate of MRW and collection of household hazardous waste and assistance to SQG's in managing their MRW, with continued enforcement and program implementation); Ongoing public involvement and public education (including potential hazards to health and environment; Proper methods of handling, reducing, recycling and disposal; an inventory of existing generators and hazardous waste management facilities).

Education leads the list of recommendations and is considered a priority in Skamania County. There are several reasons for this:

- It is a permanent County program and not a plan alternative-one that will continually remind residents of the proper waste management priorities.
- Children, from an early age, need to be taught to protect the environment and be aware to safer alternatives to more hazardous products.

- The immigration of new County residents.
- The potential for new industry generators, or for existing large quantity generators to reduce toxins or volumes to the extent that they become SQG's.
- The emergence of new laws, technologies or best management practices.

7.6.2 Current/Future Programs and Activities

Current:

The County should continue to provide the following current programs and activities:

- Annual mobile moderate risk waste collection events (households and small quantity generators).
- Permanent used motor oil collection sites.
- Permanent antifreeze collection sites.
- MRW Information/Education (Material distribution; Workshops and Presentations; Awards; Fair Booth, etc.).

New Programs:

The County should re-emphasize the success of past programs, and/or initiate new programs and activities as:

- Regionalization: Education, Training, Compliance and Enforcement, and Meetings (e.g. Local Interagency Networking Cooperative, etc.).
- Technical Assistance Visits
- Develop relevant database (e.g. generators, type of waste generated, participation, volume, cost, areas served, etc.).
- Cooperative Compliance and Enforcement.
- Add vehicle batteries or other MRW to be collected at used oil and antifreeze sites.
- Support statewide product specific collection programs (like the current E-Cycle and Mercury Lights Programs) when such program meet the needs of Skamania County residents and businesses.

Future Programs:

Sufficient data and analysis will provide the County with direction in implementing programs and actions such that:

- SQG Technical Assistance in cooperation with other County outreach programs, for example, non-point source pollution (storm water laws, etc.).
- HHW education could target specific waste reduction strategies, for example, chemical-free gardening.
- Regional solutions may include the use of neighboring county facilities as these options are sited in geographical proximity to Skamania County. Or, use the infrastructure developed and the professional expertise in the County to serve regional needs.

State Programs:

Skamania County recommends that Ecology continue to implement the following activities and programs:

- Grants.
- Technical Assistance.

- Education.

The County in cooperation with regional agencies and local governments will support, coordinate and participate in technical assistance/education with businesses to design workable programs that improve opportunities for proper recycling and disposal of moderate risk wastes.

These appropriate programs and actions may take the form of:

- Continuing to educate and inform the public about moderate risk waste issues.
- Creating appropriate economic incentives to promote reducing the usage of hazardous products and the generation of hazardous waste.
- Continuing to provide accessible locations to recycle, reuse or dispose of moderate risk waste.
- Using the knowledge gained by the comprehensive study to guide the County in undertaking new programs and activities.
- Current and new programs should continue to work to reach the objectives of the Plan and to achieve the goals.

It is also important to note that the activities shown, and the preferred alternatives, represent the County and its programs at this point in time. Different activities may be under taken, and different priorities assigned, so long as the new activities and priorities reflect an attempt to solve MRW related problems outlined elsewhere in this Plan in a cost effective manner. Cost effectiveness will remain a prime criterion, and so long as the limited funds available are used for expenditures that return the greatest reduction in MRW related problems, the County will make those expenditures.

CHAPTER 8 – WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION COST ASSESSMENT GUIDELINES

In the 1991 Plan, the Washington Utilities and Transportation Commission (WUTC) guidelines were adhered to and the WUTC questionnaire was completed (Appendix XIV). The general conditions presented in the 1991 Plan still remain in effect with the exception of changes contained in this Plan Update (Plan)

The WUTC in its Publication No. UTC-228-90-01 presents clear guidelines for recommended methodologies for preparation of cost assessment information for financial planning of solid waste systems.

The Publication has been reviewed relative to this Plan and it is believed that the plan is in compliance with the intent of the guidelines.

The Plan is not recommending any changes in the method of operation that will significantly affect the WUTC regulated collection companies serving Skamania County.

A number of optional operating scenarios are presented, all of which result in reducing operating costs of the Skamania County Solid Waste Department. The reduced costs will directly affect the cost of solid waste services to the ratepayers, in that the revenue required to operate the department was currently funded in 2012 as follows:

Tipping fees	\$326,294	45%
User fees	\$135,597	19%
Recycle sales	\$84,428	12%
Grants	\$111,151	15%
County Loan	\$64,000	9%
Other	\$2,628	0.004%
Total	\$724,098	100.0%

It is intended that when/if any of the cost saving scenarios are affected that the cost savings will eliminate the County general funds required for the operation. Therefore, while the savings could have a favorable tax impact on the ratepayers, the cost of solid waste services will not be directly reduced. The result will establish a solid waste program fee structure closer to that of a true "user-pay" system.

CHAPTER 9 - RECOMMENDATIONS

All recommendations made in this Plan are included in this Chapter. Recommendations are referenced to the Chapters and Sub-Sections in which supporting materials for the recommendations are discussed.

It is intended that during the course of continuing the recommendations from the 2001 Plan and implementing recommendations from this Plan county staff will continue to monitor these options that support the county's objectives and goals. To remain current, the 6-year implementation schedule and estimated 20-year long-term financial needs analysis must be revised periodically, at least every 5 years.

Chapter 1 - Introduction

Recommendation 1: It is recommended that this planning document be used to manage Skamania County's solid waste in accordance with Chapter 70.95 RCW solid waste management priorities, Chapter 173-304 and 350 WAC standards for solid waste facilities and solid waste disposal respectively; and Chapter 340-90-93 OAR, (State of Oregon) Solid Waste: General Provisions. This Plan will also comply with any revisions or additions to State law for both states, since wastes are generated in Washington and disposed of in Oregon.

Recommendation 2: This plan revision shall remain in current condition status by its relationship to the status of the Washington State Solid Waste Plan.

1.1 Local Governments Agreements

Recommendation 3: The concerns herein cited remain consistent with the interlocal agreements between Skamania County and the Cities of Stevenson and North Bonneville and reflect the authorization of the County to implement this Plan.

1.2 Goals and Objectives

Recommendation 4: The goals and objectives remain the same. The County will continue to follow the Plan's goals and objectives to include waste reduction, recycling, composting, education (coordinating efforts on local and regional levels) and in public/private partnerships. The County will use the CPG program to further insure that waste reduction and diversion goals are reached to the best of its ability.

Recommendation 5: The County will continue to monitor "best available technology" in all areas and reserves the right to initiate or pilot new programs that may enhance the State's goals and priorities while easing the County's cost burden.

1.3 Plan Relationship to Other Local Plans

Recommendation 6: The County will remain consistent with all plans in current condition status.

2.1 Waste Sources, Quantities, Trends and Recycling Rates

Recommendation 7: The County shall continue support of recycling efforts by all concerned individuals, the certificate haulers, and independent recycling organizations or buy-back businesses.

2.4 Inter/Intra County/State Transfer of Solid Waste

Recommendation 8: Continue to monitor the availability of sources to contract out the long hauling of materials.

Recommendation 9: Continue searching for improved or more economical waste disposal sites for contract disposal.

Recommendation 10: Continue to accept imported waste at County transfer stations.

Recommendation 11: Encourage the use of County facilities to eliminate the health and safety issues related to illegal dumping and burning.

Recommendation 12: Ensure that exported waste generated in the County is disposed of at permitted facilities to reduce County liability.

Recommendation 13: Foster a cooperative attitude between the County, Cities and the franchised haulers.

Chapter 3 - SEPA Checklist

Recommendation 14: This 2013 Plan should tier under the 1991 Plan and SEPA document.

Chapter 4 - Conducting Public Involvement and Education

Recommendation 15: Self-haul customers should continue to be targeted since the majority of household source separated materials generated in the County are self-hauled to the transfer stations.

Recommendation 16: Continue support of the franchise haulers in their waste reduction, recycling and educational pursuits.

Recommendation 17: The County and SWAC should continue to choose which elements to implement and when to implement; continue to use staff or contract out implementation; and to expand or decrease various elements of each program when necessary.

5.1 General Requirements - Solid Waste Handling

Recommendation 18: The County should take advantage of opportunities to improve the system, remain flexible to new technologies and reduce costs.

5.2.1 and 5.2.2 Transfer Station and Drop Box Facilities

Recommendation 19: The Solid Waste Department should continue to receive a full spectrum of recyclable materials at the transfer station and Drop Box Facilities.

Recommendation 20: The Stevenson facility should be monitored as to the applicability of the use of the semi-mechanized sorting line for material received at the Stevenson transfer station and its need to sort the Mt. Pleasant and Underwood recyclable materials.

Recommendation 21: As contract Material Recovery Facilities (MRF's) continue to reduce sorting costs and are within economical transport distance to the markets, the county should continue to review these options. It may prove to be more cost-effective to sell all or some materials unsorted (commingled).

Recommendation 22: Consider whether the level of service attained by keeping the transfer station and Drop Box Facilities open is worth the cost of operation considering the low volumes received at the Underwood Drop Box Facility.

5.2.3 Franchise Collection

Recommendation 23: Provide the opportunity for the haulers to implement curbside collection of recyclable materials.

Recommendation 24: The County should consider formation of a collection district and/or a service level ordinance that includes curbside collection of recyclable materials.

5.4 Future Considerations

Recommendation 25: Provide the conditions that allow the County to operate at a reasonably high level of service by providing, as practical, each customer with individual choices.

Recommendation 26: The County should develop strategies by which waste collected by the two franchised haulers is deposited at the Skamania County Stevenson Transfer station.

Recommendation 27: The County should select its solid waste management practices based on improved technology, reasonable service levels, future needs and affordability.

5.5 Waste Recycling and Reduction

Recommendation 28: The County supports the goals as stated in Chapter 70.95 RCW but reserves the right to choose implementation strategies based on such factors as local waste characteristics, economics and market conditions.

5.5.1 Recycling

Recommendation 29: Continue to promote the system of source separated recycling programs.

Recommendation 30: Maintain the education programs and the household self-haul recycling program.

Recommendation 31: Develop and emphasize new programs related to commercial and industrial recycling and encourage the franchise haulers to do likewise.

5.5.2 Waste Reduction

Recommendation 33: Support waste reduction as the top priority and continue to support the waste reduction strategies developed in the 1991 and 2001 Plans.

5.5.3 Local Program Options

Recommendation 34: Continue to monitor the solid waste volumes as compared to the effectiveness of the reduction and recycling programs as described, and continue all local programs.

5.5.4 State and Federal Program Options

Recommendation 35: The County supports the state and federal programs to reduce costs and to expedite the transition of materials from the waste stream to useable commodities and to exclude recyclable materials from the definition of solid waste (hazardous waste).

Recommendation 36: The County supports state and federal product stewardship/take back initiatives.

5.6.1 Urban and Rural Designations to Establish Minimum Recycling Levels

Recommendation 37: Evaluate the rationale for designating the County "rural" when considering the formation of a collection and/or disposal district or service level ordinance.

5.6.2 Designation of Recyclable Materials

Recommendation 38: Continue to pilot the marketing of single stream and/or commingled recyclables and negotiate appropriate contracts for their sale.

5.7 Formation of Special Districts

Recommendation 39: Thoroughly evaluate the advantages and disadvantages of forming a special collection and/or disposal district.

5.8.4 Transfer Station Tipping Fees

Recommendation 40: The County prefers user fees that pay for services offered by the County.

Recommendation 41: The basic fees at the three County transfer stations should be reasonable.

Recommendation 42: At the current County tipping fees the County would benefit from receipt of all the MSW it can handle.

5.9 Enforcement

Recommendation 43: The County in conjunction with other agencies sharing enforcement responsibilities should determine the probable impacts to human health and the environment occurring due to the lack of control over approximately 60% of the estimated waste generated in the Cities and County.

5.10 Administration

Recommendation 44: Joint public/private partnerships should be encouraged and administered as part of this Plan's findings and strategies.

7.1.5 Target: MRW Generators, Waste Streams

Recommendation 45: Continue educating the public and local businesses about safe alternatives and disposal options for their moderate risk waste.

7.1.8 Public Participation

Recommendation 45: Continue educating the public and local businesses about safe alternatives and disposal options for their moderate risk waste.

7.5.2 Drop-Off Sites For Used Oil and Antifreeze

Recommendation 45: Continue current program and start accepting vehicle batteries at the drop off sites.

7.5.2 Collection Events

Recommendation 45: Continue current program of annual HHW and SQG collection events that are the only proper disposal means for the residents.

7.5.3 Education: SQG/HHW

Recommendation 45: County should distribute an education brochure about proper MRW management, including source reduction, storage, recycling and disposal opportunities on a yearly basis.

7.6.2 Support Statewide Product Stewardship Programs

Recommendation 45: Support statewide product specific collection programs (like the current E-Cycle and Mercury Lights Programs) when such program meet the needs of Skamania County residents and businesses

CHAPTER 10 – TIMETABLE FOR THIS PLAN REVISION

10.1 Draft plan

A technical draft was completed on March 29th, 2011, and sent to Skamania County staff and SWAC for review and comment. The technical draft was review and resent to County Staff and SWAC on November 14th, 2012. It presented analyses and discussion of numerous operating scenarios including mandatory collection, privatization, and formation of special districts. The Preliminary Draft Plan was complete by November 19th, 2013, and was distributed for review. The Preliminary Draft was sent to the Cities of North Bonneville and Stevenson (for review and adoption); Skamania County SWAC (for review and recommendation for adoption); the Skamania County Board of County Commissioners (for review and adoption); the Department of Ecology (for state distribution and review); The Skamania County Environmental Health Department; and a copy put on file with the Stevenson Library (for public comment). The Final Draft Plan includes resolutions of adoption.

10.2 Final Plan

Ecology will receive the preliminary draft plan in November 2013 and can take up to 120 days for review (February 2013). The routing of The Final Draft Plan will be similar to the distribution of the Preliminary Draft Plan and is planned to be issued August 2014. A request for Plan adoption will be included in the distribution of the Plan to the Cities of Stevenson and North Bonneville, and to the Board of County Commissioners. The Final Draft will include adoption documentation.

INTER-LOCAL AGREEMENT
(RCW 39.34)

THIS AGREEMENT, made pursuant to the Inter-Local Cooperation Act of the State of Washington, between the CITIES OF STEVENSON and NORTH BONNEVILLE, and the COUNTY OF SKAMANIA, WITNESSETH:

1. Authority

RCW 70.95 and RCW 39.34 provide for the Cities and the County to enter into this Inter-Local Agreement. The Cities and the County have adopted their respective ordinances or resolutions authorizing their participation in this agreement.

2. Duration

This agreement shall remain in full force and effect for six (6) years from its inception unless revoked as provided elsewhere herein.

3. Purposes

Under the laws of the State of Washington each of the participants to this agreement have the responsibility to prepare a comprehensive solid waste management plan and a moderate risk waste plan. In the alternative, they are allowed to do so in concert with the County by designating the County as the responsible party to prepare a comprehensive solid waste management plan and moderate risk waste plan to be effective within the Cities, jurisdiction as well as within the jurisdiction of the County. The Cities and the County have elected to proceed in accordance with such alternative and it is the purpose of this agreement to accomplish said comprehensive planning.

4. Contents of Plan

The County agrees to cause a comprehensive solid waste plan and moderate risk waste plan to be prepared and to include in it the areas within the corporate limits of the Cities of Stevenson and North Bonneville. The plans shall include all of the elements specifically set out and required by RCW 70.95.090 and RCW 70.105.220.

The Cities agree to authorize the County to prepare plans for the Cities' solid waste management and moderate waste management and to cooperate with the County, doing all things necessary or expedient that are within the authority of the Cities to do, to implement the plans, including deferring to the County any financial aid which is available from the State of Washington and the extension of any municipal facilities that the parties mutually agree is necessary for the operation of any services implemented as a result of said plan on such reasonable terms as are mutually agreed to at the time by the parties.

5. Termination

This agreement shall automatically terminate unless revoked, in writing, by the parties at the expiration of the contract period or, it may be terminated sooner in any manner now or hereafter provided by state law.

6. Administration

The County shall be administer of this agreement.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the date so signified.

Dated:

CITY OF STEVENSON

By

Mayor

Dated:

CITY OF NORTH BONNEVILLE

By

Mayor

ATTEST

Clerk of the City of Stevenson

Clerk of the City of North Bonneville

[REDACTED]

[REDACTED]

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