STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
4601 N Monroe Street • Spokane, Washington 99205-1295 • (509)329-3400

February 14, 2011

Andrew Woods, P.E.
County Engineer
Columbia County
415 Guernsey Avenue
Dayton, WA 99326

RE: *Review of the Preliminary Draft 2010 Comprehensive Solid Waste and MRW Management Plan, Dated November 2010*

Dear Mr. Wood:

On January 27, 2011, Ecology received one digital and two print copies of the *Preliminary Draft 2010 Comprehensive Solid Waste and MRW Management Plan, Dated November 2010* and a request for preliminary review. I have forwarded two copies of the plan to the Washington Utilities and Transportation Commission for review. They will schedule the hearing for the review of the cost assessment you submitted.

Per statue (RCW 70.95.094), Ecology has a maximum of 120 days from January 27, 2011 to review and comment on the draft plan. You will receive our comments on or before May 27, 2011. We will, however, attempt to complete our review and forward our comments to you well in advance of that deadline.

Thank you and all involved parties for your hard work in preparing this document. If you have any questions on the progress of our review or any other questions pertaining to your plan, please call me at (509) 329-3545.

Sincerely,

James V. Wavada II

James V. Wavada II
Environmental Planner
Solid Waste and Financial Assistance Program

Enclosure

cc: Mr. David Danner, Executive Secretary, WUTC
Penny Ingram, Analyst, WUTC

ANDREW WOODS, P.E.
COUNTY ENGINEER
TELEPHONE (509) 382-2534
FAX (509) 382-4724

Columbia County

PUBLIC WORKS DEPARTMENT
415 N. GUERNSEY AVE
P.O. BOX 5
DAYTON, WASHINGTON 99328

January 26, 2011

Mr. Jim Wavada, Environmental Planner
Department of Ecology
4601 N Monroe St
Spokane, WA 99205-1295

RE: Preliminary Draft Solid Waste and Moderate Risk Waste Management Plan

Dear Mr. Wavada:

Columbia County is requesting formal review of the draft preliminary Solid Waste and Moderate Risk Waste Management Plan. Enclosed are two copies of the document for your review. You will also receive a digital copy via email.

Please contact me with any questions or concerns.

Sincerely,

WILLIAM ANDREW WOODS, P.E.
Columbia County Engineer/Public Works Director

WAW:waw

CC: File w/ Enclosure

Preliminary Draft

2010 Comprehensive Solid Waste and MRW Management Plan

November 2010

Prepared for

County of Columbia
415 N. Guernsey Avenue
Dayton, WA 99328

Prepared by

HDR Engineering, Inc.
801 South Grand Avenue, Suite 500
Los Angeles, CA 90017

ONE COMPANY | *Many Solutions*℠

HDR

Appendices

Exhibits

Tables

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Executive Summary

ES.0 EXECUTIVE SUMMARY

The 2010 Columbia County Comprehensive Solid Waste Management Plan (CSWMP) and Moderate Risk Waste (MRW) Management Plan (2010 Combined Plan) provides background and guidance for a long-term approach to solid waste and moderate risk waste management in the County. The MRW Plan was previously prepared in conjunction with Walla Walla County, but in 2010 it was decided to create a separate plan for Columbia County. The 2010 Combined Plan is intended to provide citizens and decision makers in Columbia County with a guide to implement, monitor, and evaluate future solid waste and moderate risk waste activities in the planning area for a 20-year period. The recommendations for the 2010 Plan guide local decision makers, and identify the need for fiscal responsibility and for local, State and Federal funds and grants in order to implement and operate the respective programs.

Columbia County and its designated Department of Public Works was the lead agency responsible for developing the updated CSWMP and MRW Plan, along with participation and cooperation as defined in an inter-local agreement between the County and the City of Dayton and Town of Starbuck. The Solid Waste Advisory Committee (SWAC) has participated in the Plan development by providing input and comment on the issues covered by the Plan, reviewing draft reports, acting as a liaison to their constituencies, and assisting in public involvement. The SWAC will also be asked to recommend the 2010 Plan for adoption by the County and municipalities. After the 2010 Plan is adopted, the SWAC will routinely evaluate implementation of recommended programs, and will help to promote waste reduction and recycling throughout the region.

ES.1 PLAN GOALS AND OBJECTIVES

ES.1.1 CSWMP Goals and Objectives

This CSWMP was prepared to provide a functional planning guide that encompasses the entire range of solid waste issues within Columbia County. The goals of this plan are to provide an efficient, economical, practical, and acceptable system for countywide solid waste management. Solid Waste management includes: collection, storage, transportation and disposal practices, and the administration, regulation, and enforcement of those activities. The CSWMP includes proposed implementation schedules for short-and long-term programs. In addition, financing considerations, equipment, capital improvements, land, and personnel requirements are analyzed.

The goals of the 2010 CSWMP Plan are included below:

1. Minimize impact of solid waste handling and disposal on the physical environment of the County.
2. Minimize public health threats and negative environmental impacts by providing an alternative to illegal dumping and open-air burning of solid waste.
3. Maintain the solid waste facility and programs to meet or exceed the MFS and Plan goals and objectives.
4. Increase waste reduction, recycling and recovery efforts and accomplishments.
5. Maintain a SWAC to evaluate and assess solid waste activities in the County, including pro-active citizen involvement.
6. Enhance and improve the overall efficiency of the current waste collection and transfer of solid waste.

7. Encourage composting of organic wastes.
8. Maintain up-to-date Interlocal Agreements for solid waste planning and implementation between Columbia County, the City of Dayton, and the Town of Starbuck.
9. Maintain adequate disposal capacity through agreements with private operators.
10. Revitalize the public education program, including public and private schools, to teach and encourage methods of waste reduction, recycling, composting, and other new solid waste programs as applicable.
11. Reduce the waste stream on a continuing basis to reach the goal of an additional 10% by year 2015.

ES.1.2 Moderate Risk Waste (MRW) Plan Goals and Objectives

The County's overall vision is to reduce the generation of MRW, and to eliminate the improper disposal of MRW. The following are the goals and objectives of the Columbia County MRW program:

1. Protect natural resources and public health by eliminating the discharge of moderate risk waste into solid waste systems, wastewater treatment system, and into the environment through indiscriminate disposal;
2. Manage moderate risk wastes in a manner that promotes, in order of priority: waste reduction, recycling, physical, chemical, and biological treatment, incineration, solidification and stabilization, and landfilling;
3. Increase public awareness of available alternatives and the importance of proper disposal of moderate risk wastes;
4. Improve opportunities for the safe disposal of moderate risk wastes by citizens and businesses within Columbia County;
5. Improve disposal options available to farmers and ranchers for agricultural chemical waste;
6. Reduce health risks for workers coming in contact with moderate risk wastes that may be disposed of in the solid waste stream or in wastewater treatment systems;
7. Coordinate moderate risk waste management programs with existing and planned systems for waste reduction, recycling, and other programs for solid waste management;
8. Encourage cooperation and coordination among all levels of government, citizens, and the private sector in managing moderate risk wastes;
9. Emphasize local responsibility for solving problems associated with moderate risk waste, rather than relaying on the state or federal government to provide solutions; and
10. Comply with the requirements of the Washington State Hazardous Waste Management Act (RCW 70.105.220) directing each local government to prepare a local hazardous waste management plan.

ES.2 RECOMMENDATIONS

The options reviewed and evaluated for implementation represent an approach that will provide for continued progress towards meeting local and State goals regarding solid waste management, and moderate risk waste management. The recommended policies and programs will be implemented while maintaining a balance of costs and diversion benefits to County residents.

The following lists the recommendations included in the Plan.

Section 3: Waste Transfer, Waste Disposal and Composting

- Upgrade existing transfer station equipment
- Implement additional funding sources
- Implement flow control ordinance
- Evaluate use of new disposal site for transfer wastes
- Evaluate relocating existing composting facility
- Evaluate closing existing composting facility

Section 4: Waste Reduction and Recycling

- Implement environmentally preferable purchasing
- Implement producer responsibility/product stewardship policy
- Implement County/City waste reduction policies
- Establish online waste exchange
- Implement waste reduction requirements for new developments
- Implement methods to measure waste reduction results
- Implement sustainable or zero waste management policy
- Enhance existing recycling programs for residential and commercial customers
- Conduct periodic evaluation of adding or removing materials from recycling programs
- Evaluate curbside recycling collection in the City of Dayton
- Implement event recycling
- Evaluate adding additional yard waste collection opportunities
- Evaluate curbside yard waste collection for Dayton residents
- Encourage food waste management by commercial sector
- Evaluate curbside yard waste collection in county unincorporated area

Section 5: Moderate Risk Waste

- Household hazardous waste collection
- Continue use of the transfer station for the collection of MRW from County residents.
- Provide education to residents on the types of wastes that are collected at the facility.
- Public education
- Continue existing outreach efforts, including distribution of flyers to households, businesses, at County facilities, and on the County website.
- Business technical assistance.

- Provide free technical assistance to businesses wanting to learn how to reduce and manage hazardous waste.

Section 6: Administration and Enforcement

- Facilitate interagency cooperation.
- Develop a coordinated public outreach and education program.

ES.3 IMPLEMENTATION

Capital and operating expenses to implement the Plan recommendations over the next 6 years are summarized in Exhibit ES-1. Actual budgets to carry out the recommendations will vary from year to year as specific programs are defined, and will depend upon availability of grant funding and budgets approved by local governments.

Exhibit ES-1. Six-Year Capital and Operational Financing Plan

Activity	Projected Cost	Funding Mechanism (Tip Fees/Grants/Others)	Implementation Year
Operate transfer station	$52,000	Tipping fees	Ongoing 2010-2016
Transfer and disposal	$60,000	Tipping fees	Ongoing 2010-2016
Operate recycling drop-off program	$58,000	Grants, tipping fees	Ongoing 2010-2016
Operate MRW program	$10,500	Grants, tipping fees	Ongoing 2010-2016
Upgrade transfer station	$350,000	Grants, tipping fees	2011
Implement waste reduction and public outreach and education programs	$20,000	Grants, tipping fees	2011

The implementation of the recommendations contained in this Plan will begin upon approval of the Plan by the jurisdictions and Ecology. The schedule for implementation is included in Exhibit ES-2. The schedule may be revised as the Plan is updated, and as the objectives and needs of the County and jurisdictions change. As indicated, for some recommendations, the programs are ongoing and will continue. For new programs, some will be implemented within a few months and for others implementation will span many years.

Exhibit ES-2. 20-Year Projected Needs and Implementation Plan

Program	Activity	Year	Cost/Yr	Revenue/Yr	Net Cost/Year
Transfer and Disposal					
Existing Activities	Waste transfer and disposal	2011-2031	$63,000	$63,000	$0
	Transfer station operations	2011-2031	$40,000	$40,000	$0
Plan Options	Upgrade transfer station equipment	2011	$350,000		One time cost
Waste Reduction, Recycling, and Organics			***$43,000***	***$43,000***	**$0**
Existing Activities	Public education and outreach	2011			
	Master composter training and certification	2011			
	Waste audits	2011			
	Drop-off bins	2011			
Plan Options	Environmentally Preferable Purchasing	2011-2031			
	Product stewardship policy	2011-2031			
	County/City Waste Reduction Policies	2011-2031			
	Reuse and SWAP Shops	2011-2031			
	Online waste exchange	2011-2031			
	Waste reduction requirements for new developments	2011-2031			
	Measure waste reduction results	2011-2031			
	Sustainable/zero waste policy	2011-2031			
	Establish new recycling center	2011-2031			
	Commingled bin program	2011-2031			
	Evaluate curbside collection in Dayton	2011-2031			
	Event recycling	2011-2031			
	Yard waste drop off sites	2011-2031			
	Curbside collection in Dayton	2011-2031			
	Curbside collection in County unincorporated areas	2011-2031			
	Food Waste Management by commercial businesses	2011-2031			
Moderate Risk Waste			***$12,650***	***$17,555***	
Existing Activities	MRW program at transfer station	2011			
	Outreach and education	2011			
Plan Options	Household outreach efforts	2011-2031			
	Business technical assistance	2011-2031			

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1.0 Introduction

1.0 INTRODUCTION

This document comprises the combined comprehensive solid waste management plan (CSWMP) and Local Hazardous Waste/Moderate Risk Waste (MRW) Plan for the incorporated and unincorporated areas of Columbia County (combined Plan).

The combined plan is organized as follows:

1. Introduction
2. Description of waste stream
3. Existing solid waste system
4. Waste reduction and recycling
5. Moderate risk waste plan
6. Administration and enforcement
7. Implementation

The CSWMP plan elements conform to requirements of the State Solid Waste Management – "Reduction and Recycling Act" (RCW 70.95), meet minimal Functional Standards (WAC 173-304), Solid Waste Handling Standards (WAC 173-350), and follow suggested protocol as outlined in *Guidelines for the Development of Local Comprehensive Solid Waste Management Plans and Plan Revisions* (Waste 2 Resource Program, February 2010, Publication No. 10-07-005.

The MRW Plan was created as a separate MRW Plan for Columbia County (previously combined with Walla Walla County) and has been prepared to meet the planning requirements prescribed in the Local Hazardous Waste Planning Guidelines, RCW 70.105.220 and RCW 70.951.020, and follows the suggested protocol as outlined in *Guidelines for Developing and Updating Local Hazardous Waste Plans* (Waste 2 Resources Program, October 2009, Publication No. 09-07-073). The MRW Plan is included in Section 5 of this document.

1.1 CSWMP GOALS AND OBJECTIVES

This CSWMP was prepared to provide a functional planning guide that encompasses the entire range of solid waste issues within Columbia County. The goals of this plan are to provide an efficient, economical, practical, and acceptable system for countywide solid waste management. Solid Waste management includes: collection, storage, transportation and disposal practices, and the administration, regulation, and enforcement of those activities. The CSWMP includes proposed implementation schedules for short-and long-term programs. In addition, financing considerations, equipment, capital improvements, land, and personnel requirements are analyzed.

The Goals and Objectives of the 2010 CSWMP Plan are included below:

1. Minimize impact of solid waste handling and disposal on the physical environment of the County.

   Objectives

   - Operate and maintain facilities according to Minimum Functional Standards (MFS).
   - Centralize collection of recyclables and compostables with other collection activities.

2. Minimize public health threats and negative environmental impacts by providing an alternative to illegal dumping and open-air burning of solid waste.

   Objectives

   - Provide ongoing public education.
   - Maintain operating hours that accommodate the public.
   - Maintain enforcement activities.

3. Maintain the solid waste facility and programs to meet or exceed the MFS and Plan goals and objectives.

   Objectives

   - Apply for grant assistance for continued additional funding.
   - Continue to pursue other means of financial assistance.
   - Continue to maintain networking with Ecology and other municipalities.

4. Increase waste reduction, recycling and recovery efforts and accomplishments.

   Objectives

   - Consult and coordinate with Ecology.
   - Continue to encourage and educate residents and businesses to improve the quantity of materials composted and recycled.
   - Update the CSWMP as applicable to maintain compliance with regulations.

5. Maintain a SWAC to evaluate and assess solid waste activities in the County, including pro-active citizen involvement.

   Objectives

   - Appoint new members as needed to include citizens concerned with the environmental issues of solid waste.
   - Continue to maintain records for reporting to the SWAC.
   - Educate members of the SWAC regarding County solid waste issues.

6. Enhance and improve the overall efficiency of the current waste collection and transfer of solid waste.

   Objectives

   - Continue to study and analyze collections and ways to improve.
   - Continue to evaluate tipping fees as related to the cost of operations.
   - Evaluate equipment as to future needs and possible sources for financing purchases.
   - Establish policies for agreements for partnerships in the Transfer Station operations.

7. Encourage composting of organic wastes.

   Objectives

   - Continue to encourage backyard composting and offer the Master Composter training.
   - Continue to coordinate with the Department of Ecology on organics programs.
   - Continue to increase public awareness of the compost facility through advertising and education.

8. Maintain up-to-date Interlocal Agreements for solid waste planning and implementation between Columbia County and the City of Dayton and the Town of Starbuck.

   Objectives

   - Continue to maintain a calendar to flag anniversary dates.

9. Maintain adequate disposal capacity through agreements with private operators.

10. Revitalize the public education program, including public and private schools, to teach and encourage methods of waste reduction, recycling, composting, and other new solid waste programs as applicable.

    Objectives

    - Continue to pursue grants from the Department of Ecology.
    - Utilize programs already developed by other entities, both State and local, including education tools.

11. Reduce the waste stream on a continuing basis to reach the goal of an additional 10% by year 2015.

1.2 JURISDICTIONAL ROLES IN PLANNING

RCW 70.95.080 requires each county to prepare a comprehensive solid waste management plan. The County is directly responsible for the solid waste management of the unincorporated areas. Each incorporated town or city within a county may jointly participate, prepare their own plan, or be included in the County's plan. There are two incorporated municipalities in Columbia County: City of Dayton and the Town of Starbuck. An Interlocal Agreement entered into by the County, City of Dayton and Town of Starbuck stating their intended participation and/or adoption of the plan is included in the Appendix A.

1.2.1 Role of Local Governments

Columbia County and its designated Department of Public Works was the lead agency responsible for developing the updated CSWMP and MRW Plan. That office, in collaboration with the consultant and the Solid Waste Advisory Committee (SWAC), coordinated with participating local governments and agencies, conducted public participation and educational programs, and prepared funding requests to support the planning process.

1.2.2 Solid Waste Advisory Committee

The SWAC is comprised of representatives from the incorporated areas, the County, business and industry, and citizens at large. RCW 70.95 identifies the purpose of the SWAC: "to assist in the development of programs and policies concerning solid waste handling." The committee played an active role in plan preparation, meeting regularly during the planning period to participate in the discussion issues, opportunities, constraints, and alternatives. The SWAC members reviewed the preliminary draft plan and provided comments on the various elements. Members of the SWAC are included in Table 1-1. A list of meeting dates is included in Table 1-2. Minutes of the meetings are on file in the County Public Works office.

Table 1-1. Solid Waste Advisory Committee Members, 2010

Name	Affiliation	Name	Affiliation
Dwight Robanske	Columbia County Commissioner	Darcy Darver	Town of Starbuck
Vacant	Columbia County Public Health Department	Debbie Hays	City of Dayton
Steve Martin	Columbia County Compost	Vacant	Columbia County Recycling Coordinator
Derrick Dietrich	Basin Disposal, Inc.	Andrew Woods	Columbia County Engineer

Table 1-2. Solid Waste Advisory Committee CSWMP Meetings 2009- 2010

Date
December 17, 2009
April 29, 2010
June 22, 2010
September 28, 2010

1.3 SOLID WASTE PLANNING HISTORY IN COLUMBIA COUNTY

1.3.1 1994 Comprehensive Solid Waste Management Plan

The 1994 CSWMP was a combined plan with Walla Walla County. The 1994 Plan included a number of programs for waste reduction, recycling, collection, and disposal. Highlights of the Plan's recommendations that were implemented include:

- Conducting master composting workshops.
- Purchase and use of a commercial wood chipper.
- Education and outreach to residents and businesses, including promotion of waste reduction and recycling at the County Fair, and in local newspaper advertisements.
- Obtaining Ecology funding to help eliminate indiscriminate and illegal dumping.
- Adoption of a permit system for operating disposal sites.

- Development of a white goods collection and storage area at the Transfer Station.
- Purchase and placement of recycling drop boxes at a number of locations, including the Transfer Station, in the City of Dayton and in the Town of Starbuck.
- Contracting with Basin Disposal, Inc. for servicing the recycling drop boxes.

1.3.2 2002 Comprehensive Solid Waste Management Plan

The update process for the 1994 plan began in 2000, but due to extenuating circumstances, was not completed until 2002. Coordination with or creation of a joint plan with Walla Walla County was investigated, but it was decided not to be feasible at the time.

The 2002 Plan included the following program and policy recommendations:

Waste Reduction

- Revitalize the public education, information and awareness program; form a recycling committee.
- Continue with "Master Composter" program in coordination with Walla Walla County.
- Enhance "Green Seal" program, a waste audit for local businesses.
- Develop and implement a program for recycling plastics.
- Increase emphasis for public awareness of the centralized composting facility and attributes.

Recycling and Composting

- Add a drop-off recycling trailer at Prescott to cycle with existing trailers.
- Expand "Green Seal" program.
- Promote and assist development of recycling program at public schools.
- Enhance general public information and education programs; form a recycling committee.
- Purchase tub grinder for composting operation.
- Locate site and implement plastics drop-off and recycling program.

Collection and Storage

- Continue current practice of collection by private sector service providers.
- Evaluate efficiency and long-term benefit to residents of collection program.
- Continue transfer station operations to accommodate self-haulers.
- Use County collected fees or, if applicable, private operator fees as matching funds for grant eligible public education and information programs.
- Encourage current private sector recycling programs, such as those operated by Seneca Foods Corporation and Columbia Cut Stock.

Transfer

- Continue operations at the Transfer Station three days per week with transport to Walla Walla landfill.

- Structure transfer station user fees to be consistent with operating costs, waste quantities, illegal dumping, and other factors.
- Maintain Solid Waste Reserve Fund for funding of replacement of the transfer station equipment and extension of operations.
- Pursue feasibility of sale or lease of transfer station to City of Dayton or private business, while maintaining existing and future recycling programs.

Import and/or Export

- Continue to transfer waste to Walla Walla landfill.
- Town of Starbuck should consider alternatives for collection and disposal as backup to present method.

Landfill

- Do not allow construction of a solid waste disposal facility within the County.

Enforcement, Administration and Financing

- County Health District to maintain adequate staff and/or coordination with Solid Waste Department to enforce local solid waste ordinances.
- Health District to perform enforcement activities and maintain funding from Ecology for that purpose.
- County Engineer to continue to maintain administration of the solid waste program, including monitoring and recordkeeping practices, particularly for waste recycling and diversion.
- Continue to seek funding from Ecology.

1.4 RELATIONSHIP TO OTHER PLANS

1.4.1 1991 Moderate Risk Waste Management Plan

The 1994 CSWMP was written to coordinate with Walla Walla and Columbia Counties' combined Moderate Risk Waste Management Plan, which was written in March 1991. The plan addresses the problems associated with three sources of hazardous waste: household hazardous waste, small quantities of hazardous waste produced by businesses and institutions, and agricultural chemical waste. The purpose of the plan was to protect natural resources and public health by eliminating moderate risk wastes from solid waste systems, treatment systems, and to protect the environment from indiscriminate waste disposal.

1.4.2 Columbia County Comprehensive Plan

The County Comprehensive Plan was updated in 2008. The County has chosen to take a pro-active role in attracting developments to meet the needs of the citizens, prioritizing alternative uses of land and public resources, and identifying in explicit terms the impact proposed developments will have on the community.

The community identified through the visioning process the following goals which provided a basis for planning:

- Maintain quality of life
- Maintain infrastructure
- Build on and take full advantage of existing assets
- Build on current stewardship of land
- Reduce land use conflicts and haphazard development.

In relation to Solid Waste issues, the Comprehensive Plan states that most Columbia County residents now have a waste collection service available to them. The City of Dayton contracts with Basin Disposal Services, Inc. to provide solid waste collection services. Columbia County owns and operates a solid waste transfer station, which is used by some residents of Dayton and most rural areas. Starbuck's waste and the waste generated in rural areas are transported directly out of the County. There is a joint City/County compost facility on Eager Hill Road, which is operated by a private contractor.

The Comprehensive Plan addresses siting of solid waste facilities in the section on Siting Public Facilities and Services. The Plan objectives include the following:

Objective

"To ensure that public facilities are located so as to protect environmental quality, optimize access and usefulness to all jurisdictions, and equitably distribute economic benefits/burdens throughout the County. Essential public facilities include those facilities that are typically difficult to site, such as airports, state education facilities, and state or regional transportation facilities, state and local correctional facilities, solid waste handling facilities, and in-patient facilities including substance abuse facilities, mental health facilities, and group homes. (RCW 36.70A.200 (1))"

Policies to support this objective include the following:

Policy 1: Develop with public participation a cooperative regional "process for identifying and siting essential public facilities" of regional and statewide importance in accord with RCW 36.70A.200 (1).

Policy 2: Do not preclude the siting of essential public facilities, but generate standards to ensure that reasonable compatibility with other land uses can be achieved.

Policy 3: When essential public facilities are proposed, the potentially-affected city(s) and/or town(s) and the County shall:

a. Appoint an Advisory Project Analysis and Site Evaluation Committee
b. Ensure public involvement
c. Notify adjacent cities and towns and other governmental entities of the proposed project and solicit review and comment

Policy 4: The Advisory Project Analysis and Site Evaluation Committee shall consider at least the following *(sections were selected that pertain to solid waste)*:

1. Essential public facilities shall be developed in a timely, orderly, and efficient arrangement, and be so located as not to adversely affect the safety, health, or welfare of the citizens residing around or near the facility.
2. Land adjacent to existing and proposed essential public facilities which may be developed in the future shall be compatible with such uses.
5. Proposed essential public facilities shall be compatible with existing land uses.
7. Undesigned landfills, dredging, waste discharges, and other activities with potential deleterious environmental impacts shall be controlled with appropriate rules and regulations adopted and enforced by the jurisdiction with authority.
8. Essential public facilities shall not locate in Resource Lands or Critical Areas if incompatible.
9. Essential public facilities shall not be located outside of UGA's unless they are self-contained and do not require the extension of urban governmental services.

1.4.3 Shoreline Master Program

The Shoreline master program was developed in 1975 for the County and incorporated areas of Dayton and Starbuck. The purpose of the program is to provide an objective guide for regulating the use of shorelines. Issues of landfill and solid waste disposal are discussed in Sections 19 (Landfill) and 20 (Solid Waste Disposal). According to the policies established in Section 19, Shoreline areas shall not be considered for sanitary landfills for waste disposal. According to the regulations established in Section 20.1.1 solid waste disposal shall be prohibited in all environments.

1.5 BACKGROUND OF THE PLANNING AREA

1.5.1 Population

In 2009, it is estimated there was a total of 4,100 people residing in Columbia County. There are two population centers in Columbia County: Dayton and Starbuck. In 2009, Dayton had a population of 2,735 and Starbuck had 130. The County's population has increased slightly over the last 20 years, from 4,024 in 1990 to 4,100 in 2009. Table 1-3 contains population data for 2000 through 2009.

Rural vs. Urban Distribution

Over the past 20 years, Columbia County's city and rural populations have fluctuated as the population has decreased. In 1990, 61% or 2,468 residents were living in urban/incorporated areas, and 39% or 1,556 residents were living in rural/unincorporated areas. By 2000, the ratio had shifted to 69% in the cities and 31% in the rural areas. In 2009, the distribution was 70% in the cities and 30% in the rural areas. Factors influencing future projections are: annexation plans of the City of Dayton, personal living preferences and housing availability. A standard that may be used in projecting future patterns may ultimately rely on using the existing 70-30 split, which, considering Columbia County's historic background, is reasonable.

Table 1-3. Columbia County Population 2000-2009

Area	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Unincorporated	1,279	1,255	1,255	1,255	1,255	1,255	1,250	1,250	1,240	1,235
Incorporated	2,785	2,845	2,845	2,845	2,845	2,845	2,850	2,850	2,860	2,865
Dayton	2,655	2,715	2,715	2,715	2,715	2,715	2,720	2,720	2,730	2,735
Starbuck	130	130	130	130	130	130	130	130	130	130
Total	**4,064**	**4,100**	**4,100**	**4,100**	**4,100**	**4,100**	**4,100**	**4,100**	**4,100**	**4,100**

The population of the County is anticipated to decrease slightly over the next 20 years, by approximately 0.2 % per year, as indicated in Table 1-4. This is based on the Office of Financial Management Medium Series population projections.

Table 1-4. Projected Population Growth, 2010-2030

Year	2010	2020	2030
Population	4,103	4,096	4,088

1.5.2 Land Use

The County is comprised of a total of 556,032 acres. The majority (53%) of land in the County is used for agricultural purposes, including cropland and rangeland. Public lands comprise 29%, and forest and grass land comprise 17%. Urban areas constitute the smallest land use in the County, at less than 1%. A breakdown of acreage by type of land use is included in Table 1-5.

Other than a scattering of farm houses/ranches, residential land use is concentrated within the city of Dayton and the town of Starbuck. Besides these two population centers, Columbia County consists solely of Low-Density Residential. There are 2,018 housing units in Columbia County, a decrease of 28 units from 1990. Of the 2,018 housing units, 1,210 are within the urban clusters and 808 are in the rural areas of the County, including 120 which are associated with farms. According to the 2008 Comprehensive Plan, the County has considerable potential for building within the existing incorporated land area. This inventory includes subdivisions which were platted in the past, but have not been built.

Table 1-5. Existing Land Use

Type of Land Use	Acreage	%
Urban Area	312	0.006%
Agricultural	297,000	53%
Cropland	200,000	36%
Rangeland	97,000	17%
Other Tree and Grass Land	96,320	17%
Public (National forest)	159,500	29%
Total	**556,032**	**100%**

1.5.3 Industry and Employment

The economy of Columbia County has historically been tied to dryland farming. The principal crops include wheat, peas, barley, and grass seed. Livestock production mainly consists of cattle and sheep. Tree fruit production is also an important industry, with the local orchardists harvesting Red, Rome, and Golden apples as well as small stands of other fruit. Columbia County is almost without any recognized mineral resources. The resources of some value are sand, gravel, rock, and clay.

Recently, there has been a shift in Columbia County away from natural resource based occupations to jobs within the retail and service industries. Currently, there are only five percent of the employees obtaining their living directly from farming, forestry, or fishing. On the other end of the growth spectrum, jobs in the health and education sector have increased from 277 in 1990 to 344 in the year 2000. The larger sources of employment within the County include Ski Bluewood, Dayton General Hospital, Dayton Public Schools, Columbia County government, and the Federal Government.

Retail trade in Columbia County is almost entirely restricted to the City of Dayton and, to a lesser degree, to Starbuck. Dayton remains the agricultural service center for Columbia County with a variety of businesses supporting agricultural production. It is also the financial center for the County with a number of banking and savings institutions.

Little Goose Dam is a federally operated hydropower plant producing between 100-600 megawatts of power. Little Goose Dam is also one of the Town of Starbuck's primary employers, both at the power plant and in fisheries management relating to salmon recovery. The recreational opportunities from Lake Herbert G. West and Lake Bryant created by the impoundment of the Snake River by Lower Monumental and Little Goose Dams' generate the greatest source of revenue for businesses located within the Town of Starbuck.

Future economic trends that have an incentive for additional population growth are the development of alternative energy sources such as wind turbine construction, hi-speed internet that allows for rural business location and home businesses, and small town retirement trends.

In spring 2010, Puget Sound Energy (PSE) commenced the Lower Snake River Wind Project to generate renewable power. Phase I of the project is currently under construction near Pomeroy, Washington in Garfield County with future plans to expand into Columbia County. The Lower Snake project is designed to be built during five construction phases, each anticipated to be 9 to 12 months in duration. Phase I of the Lower Snake project includes a 343-megawatt (MW) facility with 149 wind turbines, rated at 2.3 MW each. It is expected to be operation in 2012 and will provide power for more than 100,000 homes.

During construction in 2005 of PSE's Hopkins Ridge wind farm project located northeast of Dayton in Columbia County, 175 new jobs were created. Of those 175 jobs, approximately 25% were filled by local residents. It is anticipated that similar opportunities will be available for local workers within Columbia, Garfield, and surrounding counties for the Lower Snake project. Each of the five 9- to 12-month construction phases is anticipated to require between 322 and 435 local jobs. This means that over the approximate five-year construction period between 2010 and 2014, a total of between 1,611 and 2,174 temporary jobs will be created in the region. Operation of the completed project is anticipated to require between 69 to 89 local, permanent staff in daily management, operations, and maintenance roles as well as up to 47 additional indirect permanent jobs.

2.0 Description of Waste Stream

2.0 DESCRIPTION OF WASTE STREAM

An accurate analysis of the types and quantities of waste generated provides the necessary data for identifying existing and future solid waste system needs, and the policies and programs to be implemented to meet those needs. This section analyzes Columbia County's waste generation trends, and utilizes historical and projected population data to produce a 20-year (2010 to 2030) waste generation forecast. The section also presents information on waste composition, including the types and quantities of wastes disposed and diverted.

2.1 EXISTING WASTE GENERATION (DISPOSAL AND DIVERSION)

Data used in this Plan reflect a key difference between disposed and generated quantities of waste. As used in this Plan, disposed solid waste is considered to be all solid waste placed in landfills within, or outside of the County. Waste generation is calculated as the sum of all disposed waste and diverted waste, which includes waste that is recycled, composted, or otherwise diverted from disposal.

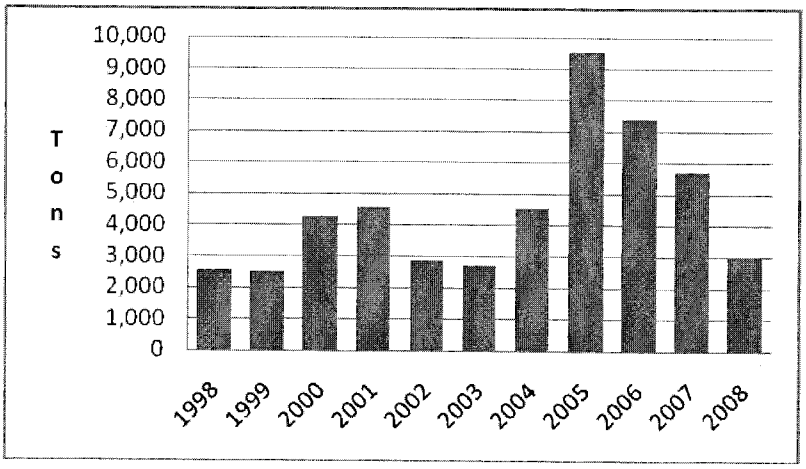
Waste Generation = Disposed Waste + Diverted Waste

According to data from the County and from Ecology, in 2008 the county generated approximately 3,044 tons of solid waste, including an estimated 2,839 tons of waste disposed and 205 tons diverted from disposal. Table 2-1 and Exhibit 2-1 show the waste generation (tons per year) for Columbia County over the past ten years.

Table 2-1. Tons of Solid Waste Generated, 1998-2008

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Solid Waste Generation (tons)	2,567	2,507	4,263	4,588	2,882	2,737	4,518	9,514	7,416	5,704	3,044

Exhibit 2-1. Tons of Solid Waste Generated, 1998-2008



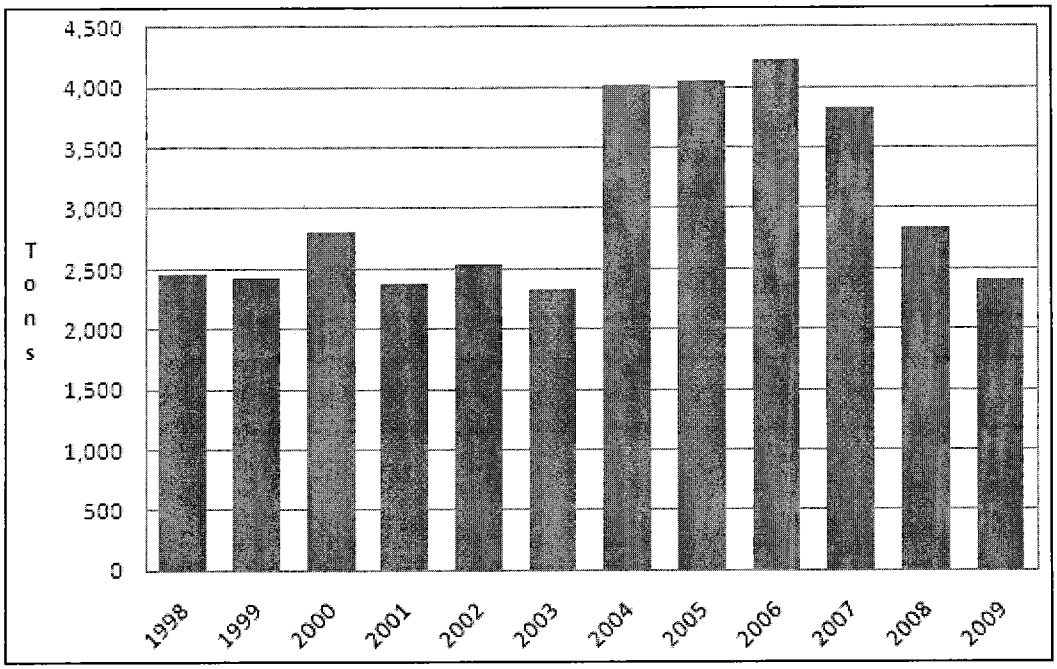
2.1.1 Waste Disposal

Table 2-2 and Exhibit 2-2 depict the amount of solid waste disposed per year from 1998 to 2008. As indicated, disposal has fluctuated over the last 10 years but has decreased by approximately 1,380 tons over the last three years, from 4,222 tons in 2006 to 2,839 tons in 2008. Overall, waste disposal has increased by approximately 15% from 1998 to 2008.

Table 2-2. Tons of Solid Waste Disposed, 1998-2008

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Disposal (tons)	2,461	2,423	2,811	2,385	2,542	2,324	4,027	4,058	4,222	3,828	2,839	2,417

Exhibit 2-2. Tons of Solid Waste Disposed, 1998-2009



2.1.2 Diversion Rate

There are numerous methodologies for calculating a diversion or recycling rate, as described below.

Municipal Solid Waste (MSW) Recycling Rate: To determine a recycling rate that is consistent and comparable to past years, Ecology has measured a very specific part of the solid waste stream since 1986. It is roughly the part of the waste stream defined as municipal solid waste by the United States Environmental Protection Agency (USEPA). It includes durable goods, nondurable goods, containers and packaging, food wastes, and yard trimmings. It does not include industrial waste, inert debris, asbestos,

biosolids, petroleum contaminated soils, or construction, demolition and land clearing debris recycled or disposed of at municipal solid waste landfills and incinerators.

Diversion Rate: Since the mid-1990s, Ecology has noted very large increases of material recovery in "non-MSW" waste streams; most notable are the growing industries in recycling asphalt, concrete, and other construction, demolition, and land clearing debris. The recovery of these materials for uses other than landfill disposal is termed "diversion." The diversion rate is an overall measure which includes materials that fall under the "MSW Recycling Rate" and also "diverted" materials.

2.1.2.1 Existing Diversion and Recycling

Table 2-3 and Exhibit 2-3 indicate the quantities of waste diverted by year from 1998 through 2008. As with waste disposal, diversion has fluctuated significantly over the last 10 years but has increased overall from 106 tons in 1998 to over 205 tons in 2008.

The peak years of waste diversion over the last 10 years were in 2005 and 2006. In 2005, just over 5,000 tons of food processing wastes were reported to be diverted from the landfill, in addition to smaller volumes of other materials. In 2006, 2,600 tons of ferrous metals were diverted from the solid waste stream.

Table 2-3. Tons of Solid Waste Diverted, 1998-2008

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Diversion (tons)	106	84	1,452	2,203	340	413	491	5,455	3,194	1,876	205

Exhibit 2-3. Tons of Solid Waste Diverted, 1998-2008

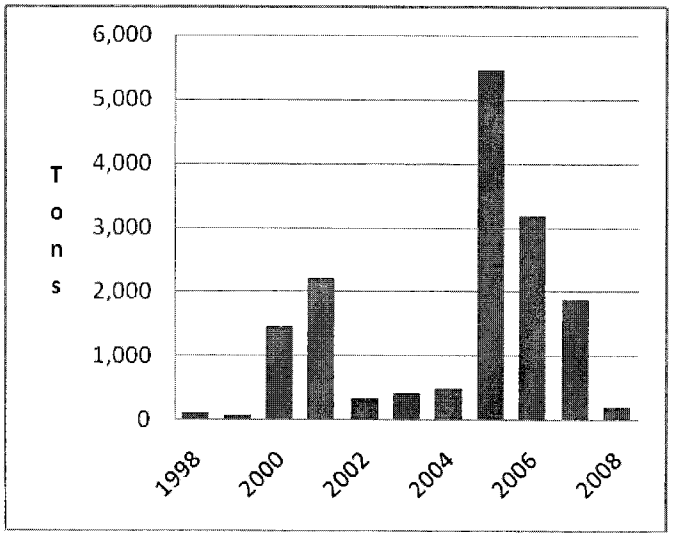
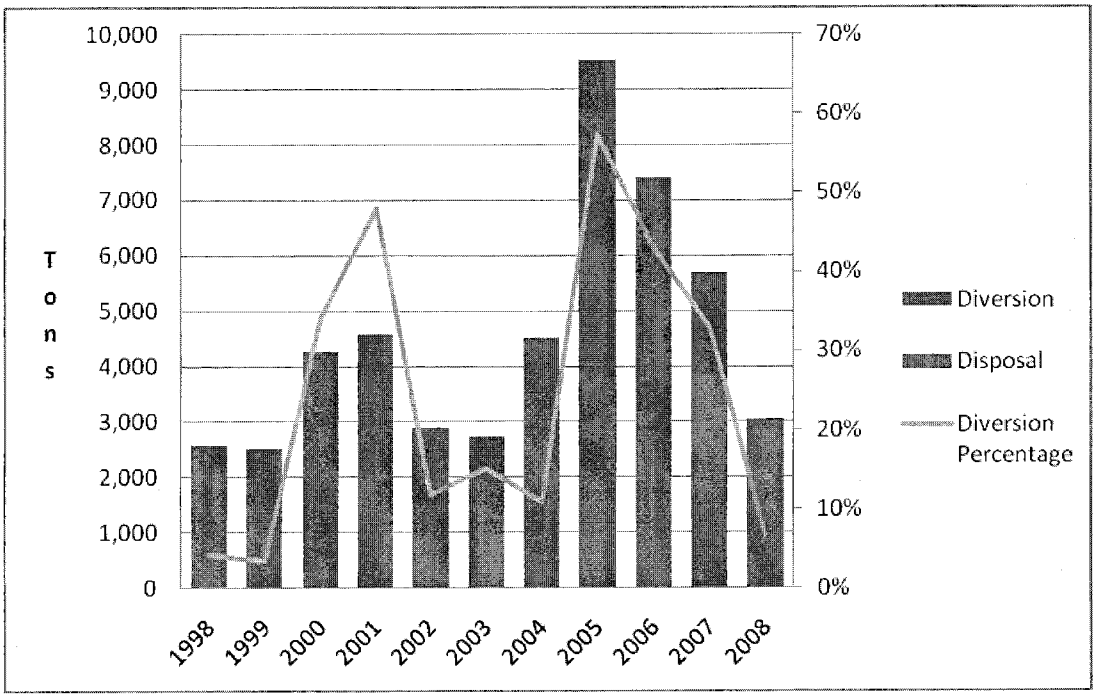


Exhibit 2-4 provides a comprehensive look at the amount of municipal solid waste disposed and diverted, and the diversion rate, by the county over the past ten years, from 1998 through 2008.

Exhibit 2-4. Columbia County Solid Waste Disposal and Diversion, 1998-2008



2.2 PROJECTED WASTE GENERATION (DISPOSAL AND DIVERSION)

The methodology used to estimate solid waste generation rates for the next 20 years consists of using the per capita generation rate and multiplying this rate by population projections. The per capita waste generation rate (pounds per person per day) for the County was calculated using the known data from 2008.

That calculation is:

$$\frac{\text{Total Waste Generation (tons)}}{\text{Population (pp)}} = \frac{3{,}044 \text{ (tons)}}{4{,}100 \text{ (pp)}} \times \frac{2{,}000 \text{ lb}}{\text{ton}} \times \frac{\text{year}}{365 \text{ days}} = \mathbf{4.07 \text{ lb/pp/day}}$$

Assuming the generation stays the same, Table 2-4 combines population projections with the calculated per capita waste generation rate for the County to predict waste generation through year 2030. As discussed in Section 1, the population of the County is anticipated to decrease slightly over the next 20 years, by approximately 0.2 percent per year. This is based on the Office of Financial Management Medium Series population projections.

Table 2-4. Projected Waste Generation, 2010-2030

Year	2010	2015	2020	2025	2030
Population	4,103	4,096	4,096	4,096	4,088
Projected Waste Generation (Tons)	3,048	3,042	3,042	3,042	3,036

Waste generation is influenced by various demographic and economic factors, including changes in levels of employment and personal income, the value of recyclable materials, the price of disposal services, changes in product design and packaging, and changes in behavior affecting waste reduction and recycling activities. Some of these factors are difficult to measure over time, while others are so interrelated that using them in a statistical analysis lowers the accuracy of the forecast. For these reasons, a forecast was developed based on the historical waste generation and population projections to indicate the upper limit of potential increases in solid waste generation within the county. However, it is important to realize that any of these related factors may change within the forecast period. To maintain accuracy, the generation rate should be monitored and projections should be routinely updated.

2.3 WASTE COMPOSITION

In addition to the amount of waste generated, it is important to evaluate the components of the waste stream to identify materials that could be reduced, reused, recycled, composted or otherwise diverted from the landfill. This information is valuable in planning effective recycling and waste minimization programs. Several factors affect waste composition, including existing opportunities for recycling or composting materials, types of business and industry, the area climate, occurrence of natural disasters, mix of urban versus rural designations, the density of residential dwellings, and technological advances.

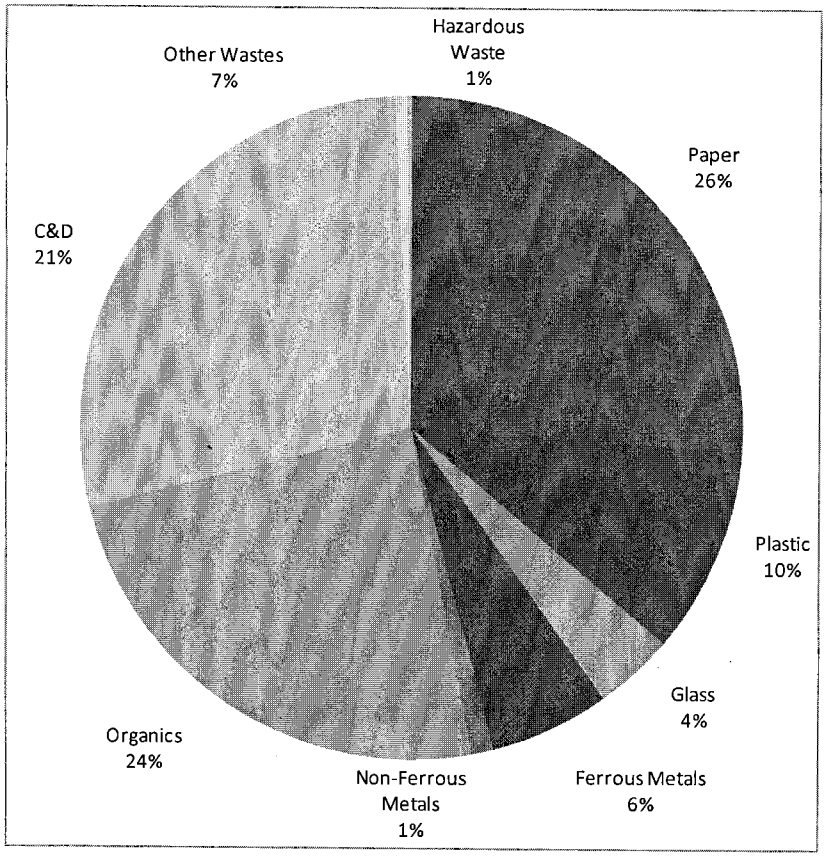
No detailed waste composition study has been performed for Columbia County. Therefore, waste composition studies from other jurisdictions were reviewed, and it was determined that the waste composition study conducted for Eastern Washington is most representative of Columbia County's disposed waste, due to similar geography and climate. The general waste composition for Eastern Washington is shown in Exhibit 2-5. In order to better estimate the characterization of the County's disposed waste, the categorical percentages from the Eastern Washington study were multiplied by the total disposed tonnage for Columbia County in 2008. The results of the composition analysis are shown in Table 2-5. The information is important for identifying the types and quantities of materials that could potentially be targeted for recycling or other diversion programs.

As shown on Exhibit 2-5 and indicated in Table 2-5, the greatest opportunities for diversion are the categories of paper (estimated to be 26% of the waste stream), construction debris (21%), organics (24%), and plastics (10%). The County offers diversion opportunities for each of these categories of materials, however, there are likely opportunities for additional collection and diversion of these material types from the County's solid waste stream. Based on the diversion tonnages as reported by Ecology and discussed in Chapters 3 and 4, Columbia County is currently capturing much of the yard waste stream, with an average of approximately 200 tons per year being diverted from the landfill. However, there is uncertainty about the future of this diversion strategy, as the privately operated compost facility does not generate sufficient revenue to be financially sustainable. Alternatives to the current compost operation are discussed in Chapter 4, Section 4.3.

Table 2-5. Estimated Waste Disposal Composition Summary for Columbia County Using Eastern Washington Percentages

CATEGORY and Material Type	Eastern WA Percent	Columbia County Tons	CATEGORY and Material Type	Eastern WA Percent	Columbia County Tons
PAPER	**26.06%**	**739.84**	**NON-FERROUS METALS**	**1.07%**	**30.38**
Newspaper	3.34%	94.82	Aluminum Cans	0.60%	17.03
Corrugated Paper	7.31%	207.53	Other Aluminum	0.13%	3.69
Computer Paper	0.19%	5.39	Other Non-Ferrous Metals	0.34%	9.65
Office Paper	0.81%	23.00	**ORGANICS**	**24.07%**	**683.35**
Mixed Recyclable Paper	7.01%	199.01	Food	8.34%	236.77
Milk / Juice Cartons	0.61%	17.32	Yard Wastes	11.64%	330.46
Aseptic Juice Containers	0.01%	0.28	Other Organics	4.09%	116.12
Frozen Food Containers	0.18%	5.11	**CONSTRUCTION DEBRIS**	**21.24%**	**603.00**
Other Paper	6.58%	186.81	Wood Wastes	12.99%	368.79
PLASTIC	**10.06%**	**285.60**	Gypsum Drywall	0.80%	22.71
PET Containers (#1)	0.31%	8.80	Inert Solids/ Fines	1.78%	50.53
HDPE Containers (#2)	0.67%	19.02	Other Construction Debris	5.67%	160.97
LDPE Plastics (#4)	0.06%	1.70	**OTHER WASTES**	**6.84%**	**194.19**
Polystyrene (#6)	0.74%	21.01	Disposable Diapers	2.08%	59.05
Plastic Bags	3.93%	111.57	Textiles	3.72%	105.61
Other Coded Plastic Packaging	0.77%	21.86	Rubber Products (except Tires)	0.40%	11.36
Other Plastics	3.58%	101.64	Large Bulky Items	0.44%	12.49
GLASS	**3.87%**	**109.87**	Other Materials	0.19%	5.39
Clear Glass Containers	2.06%	58.48	**HAZARDOUS WASTE**	**0.61%**	**17.32**
Green Glass Containers	0.37%	10.50	Paint / Adhesives / Solvents	0.20%	5.68
Brown Glass Containers	0.81%	23.00	Cleaners	0.02%	0.57
Refillable Beer Bottles	0.05%	1.42	Pesticides / Herbicides	0.06%	1.70
Other Glass	0.58%	16.47	Non- Vehicle Batteries	0.02%	0.57
FERROUS METALS	**5.95%**	**168.92**	Other Hazardous Wastes	0.32%	9.08
Tin Cans	1.46%	41.45	**SPECIAL WASTES**	**0.24%**	**6.81**
Bi-Metal Cans	0.00%	0.00	Used Oil	0.00%	0.00
Mixed Metal & Other Materials	1.70%	48.26	Tires	0.07%	1.99
White / Brown Goods	0.15%	4.26	Vehicle Batteries	0.17%	4.83
Other Ferrous Metals	2.64%	74.95	Ferrous Vehicle Parts	0.00%	0.00
			TOTAL	**100.00%**	**2,839.00**

Exhibit 2-5. Eastern Washington General Waste Composition



The County does an effective job of collecting used oil with an average of 30 tons per year collected, and white goods (large appliances) with an average of 45 tons per year being collected.

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3.0 Existing Solid Waste System

3.0 EXISTING SOLID WASTE SYSTEM

3.1 WASTE COLLECTION

3.1.1 County Authority

The authority of the counties in terms of solid waste collection is limited. The counties can not directly provide solid waste collection services, only disposal. Collection services in the unincorporated area are provided by private companies regulated by the Washington Utility and Transportation Commission (WUTC). The counties can establish solid waste collection and disposal districts but the districts cannot include incorporated areas without the consent of the legislative authority of the city or town. There are no existing collection or disposal districts in Columbia County.

3.1.2 Municipality Authority

Cities and towns have several options for managing solid waste collection under state law, including:

Option #1: The city may choose not to manage or regulate its own refuse collection services. Collection services may then be provided by the certificate hauler(s) with authority for that area under the regulation of the WUTC.

Option #2: The city may require a private company to obtain a refuse collection license from the city and to conform to all city collection guidelines.

Option #3: The city may award contracts to private companies for refuse collection in all or part of the city. The contract hauler does not need to hold a WUTC certificate for that area. Usually contracts are awarded on a competitive basis to the lowest bidder.

Option #4: The city may decide to manage and maintain its own municipal collection system for all or part of its jurisdiction.

The WUTC would not have jurisdiction over the last two options (Chapter 81.77.020 RCW). State law also allows municipalities to require residents and businesses to subscribe to designated refuse collection services.

Dayton

The City of Dayton provides solid waste collection services through Option #3, a contract with Basin Disposal, Inc. (BDI) of Pasco, Washington. The contract with the City of Dayton went into effect in February 2000, and continues in effect until terminated by either party, at which point the agreement remains in effect for an additional seven years from the date of notice of termination.

BDI provides solid waste pick-up two days per week in the City of Dayton; Mondays on the north side of town and Thursdays on the south side. In 2009, an estimated 1,700 tons of waste was picked up from residential and commercial customers, which was approximately 32 tons per week. City residents use a 105-gallon can for MSW and yard waste combined, and commercial customers and large farms use 300-gallon cans. Additional waste volume beyond the can capacity may be collected for additional fees. On Thursdays, BDI also provides a bulky waste pick-up service.

Waste collected in Dayton is taken to the Basin Disposal transfer station in Pasco, and then transferred to Finley Butte Landfill, near Boardman, Oregon, for final disposal. Twice per year, once in the spring and once in the fall, the City of Dayton provides curbside yard waste pick-up service. Residents set out yard waste on a specified day and the City operates a chipper and a truck to process and haul the yard waste to the Columbia Compost facility, discussed in Section 3.4.

Starbuck

The Town of Starbuck provides for solid waste collection services also by a contract with Empire Disposal. Empire Disposal provides solid waste pick-up one day per week in Starbuck. Residents use their own cans, bags or boxes to dispose of MSW and yard waste. Approximately 185 to 190 tons per year are collected in the City, or an estimated 3.5 tons per week.

3.1.3 WUTC Authority

The WUTC supervises and regulates solid waste collection companies. WUTC authority (Chapter 81.77 RCW and Chapter 480-70 WAC) is limited to private companies providing solid waste collection services in unincorporated or outside of contracted areas and does not extend to municipal collection operated by municipalities or their contractors. The Commission requires reports, establishes rates, regulates service areas, and safety practices.

A private solid waste collection company must apply to the WUTC for a certificate of public convenience and necessity to operate in the unincorporated areas of the County or in incorporated areas which choose not to regulate refuse collection. The WUTC grants certificates within a designated service area to an applicant based on cost data, documented need for the service, and, if the district is already served by a franchise holder, the ability or inability of the existing franchise holder to provide service to the satisfaction of the WUTC. The Commission requires annual reports showing the refuse collection company's gross operating revenue. Certificates may have terms and conditions attached and may be revoked or amended after a hearing held by the WUTC.

There are two certificated haulers in Columbia County, Basin Disposal of Washington, LLC and Empire Disposal Inc. Waste collected by Basin Disposal outside of Dayton is taken to the City of Walla Walla's Sudbury Landfill located west of the city. The information for these haulers is included in Table 3-1.

Table 3-1. WUTC Certificated Waste Haulers in Columbia County

Hauler	Basin Disposal of Washington, LLC 1220 W. Pine Street P.O. Box 3850 Pasco, WA 99302-3850 (509) 547-2476	Empire Disposal Inc North 905 Sumner P.O. Box 649 Colfax, WA 99111-0649 (509) 397-3200
Certificate	Certificate G-165	Certificate G-75

Maps showing the service areas of the Certificate Haulers are included as Exhibits 3-1 and 3-2.

Exhibit 3-1. Certificated Area – Basin Disposal of Washington

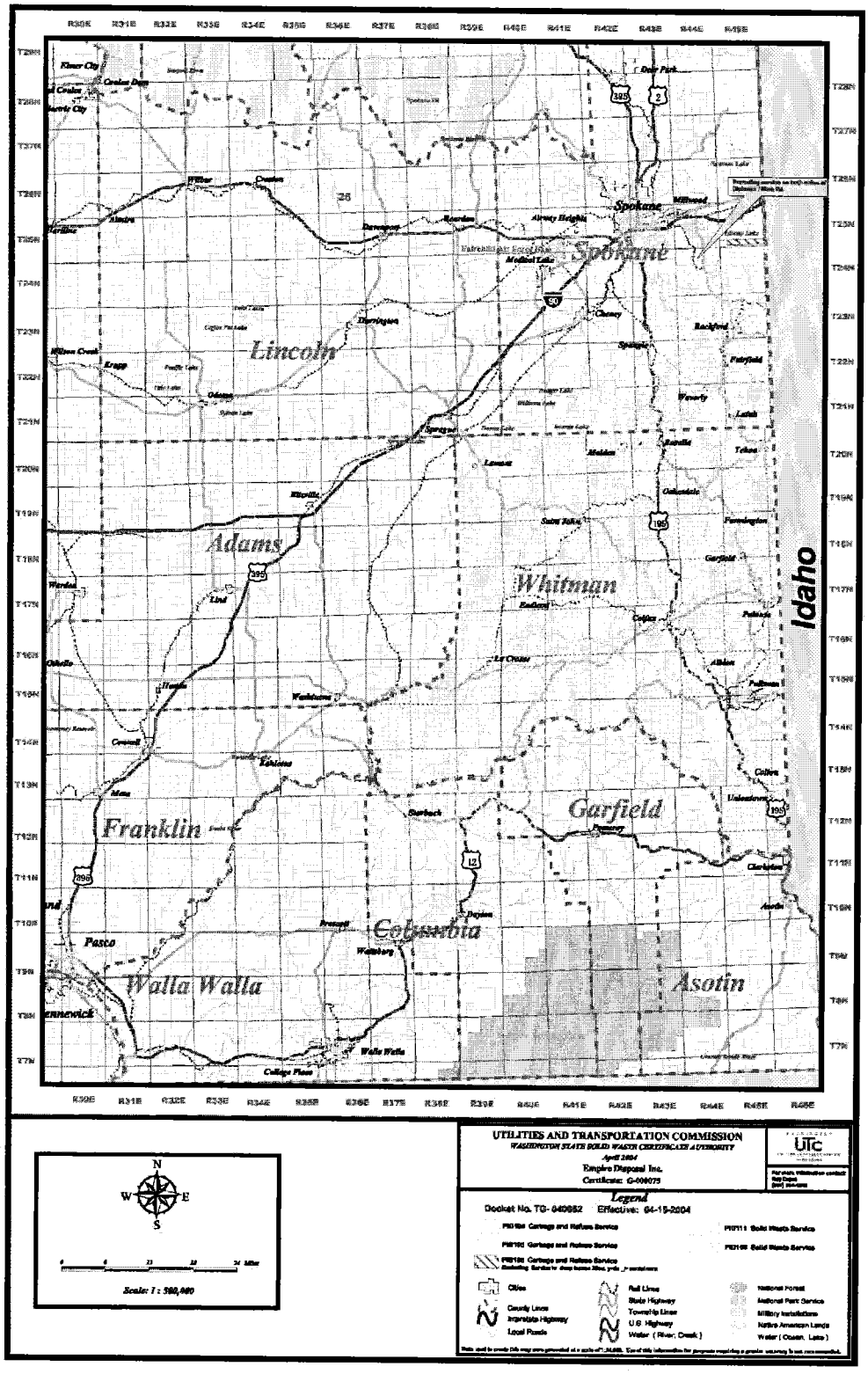
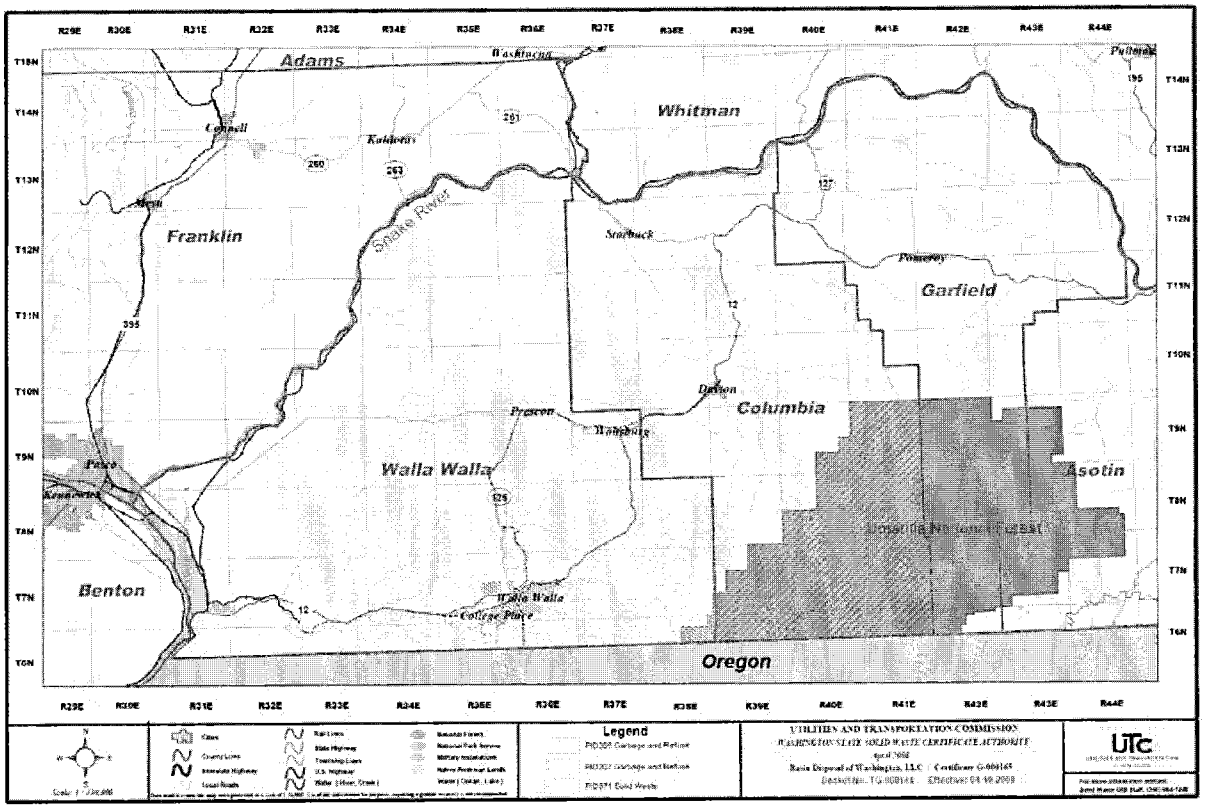


Exhibit 3-2. Certificate Area – Empire Disposal



3.1.4 Self-haul

In lieu of or in addition to on-site collection County residents and business may bring their waste directly to the transfer station. Users are charged $94 per ton or a minimum use charge of $11.00. Weight records of solid waste received are retained onsite. The County's policy on type and characteristics of solid waste accepted at the transfer station has been guided by site experience and understanding of the equipment capabilities. The transfer station does not accept items longer than five feet in length to save wear and tear on the compactor and to prevent jamming the hydraulic ram. White goods, scrap metal, household hazardous waste, and car batteries are segregated from the remainder of the waste stream. Further, the transfer station does not accept large loads of inert materials such as soil, asphalt, or concrete.

3.2 WASTE TRANSFER

The transfer phase of solid waste management involves centralizing the solid waste stream from the storage and collection operations. Waste transfer operations in the County include drop boxes, dumpsters, and trailers for transporting waste between the County transfer station and out-of-County landfills for eventual disposal.

The Columbia County Transfer Station was constructed in 1978 as a partial fulfillment of the 1975 CSWMP. The transfer station is owned and operated by Columbia County and is located approximately

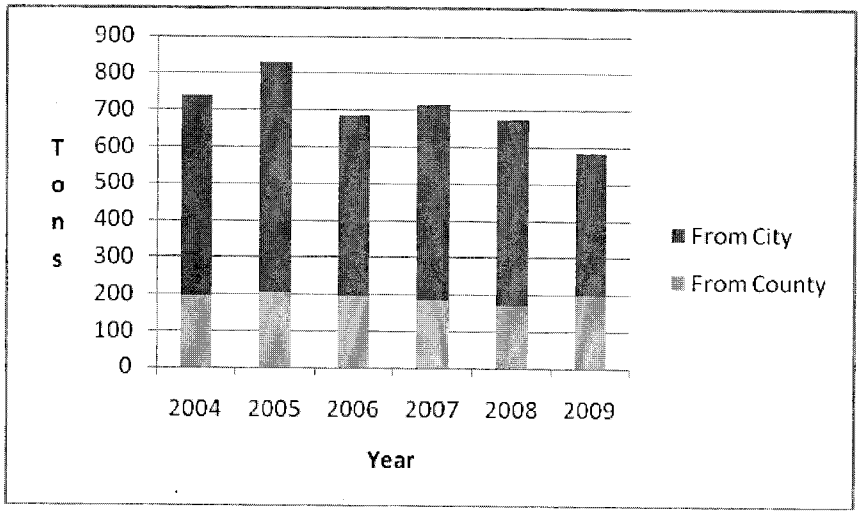
½ mile southwest of SR-12 in Dayton, adjacent to the City limits. The Columbia County Public Works Department is responsible for oversight of the transfer station. The station is open to the public Tuesday, Thursday and Saturday, from 11 a.m. to 4 p.m. The hours of operation were set based on input from the general public over a number of years of operation.

The transfer station receives solid waste from self-haulers from residences and businesses in the cities and unincorporated areas of the County. The transfer station receives an average of 700 tons per year of waste. The majority (approximately 500 tons per year) of the waste is from the incorporated cities, the remaining (approximately 200 tons per year) comes from the County unincorporated areas. Transfer station data from 2004 through 2009 is presented in Table 3-2 and Exhibit 3-3.

Table 3-2. Transfer Station Tonnages

Year	2004	2005	2006	2007	2008	2009
Total Tonnage	**738**	**879**	**723**	**716**	**671**	**584**
From County	196	204	194	185	172	199
From City	541	624	492	532	503	386

Exhibit 3-3. Transfer Station Tonnages



The Columbia County Transfer Station is equipped with a single bay, open-front building with weigh scales. The County's transfer trailers have a 75-cubic yard capacity, and are equipped with hydraulic rams for compaction of the solid waste. The trailers are manufactured by Heil. Two trailers were purchased in 1978 and one was purchased in 2005. They have an estimated lifespan of 15 years each. The tractor truck is a 1998 Sterling model LT-9511, also with an estimated lifespan of 15 years. Once a trailer is full, the waste is transferred to Sudbury Landfill near Walla Walla. Trailers are typically filled and transferred to the landfill about three times per week during the spring and summer, and about one time per week in the fall and winter. The 37 mile round trip from the station to Walla Walla Landfill takes about 2 to 3 hours, including unloading time. Each trailer is typically loaded with ten to fifteen tons

of waste. The operator typically applies an unmeasured volume of water to the compressed waste for dust control. Dust control measures are generally required nine to ten months of the year.

The County will be replacing the older compactor trailers with a new stationary compacter and bin system for more efficient and less costly transfer operations.

The transfer station also includes a compartmentalized receptacle box for segregation of recyclables and a cardboard collection point and compactor. Some floor sorting is conducted by County staff for the recovery of metals and cardboard. The recycling bin (containers, mixed paper and cardboard) is serviced by BDI. The County takes the metals to Walla Walla for salvage.

The station also accepts Household Hazardous Waste (HHW) items, including used motor oil, filters, anti-freeze, paint, batteries, small quantities of pesticides, and white goods. The materials are stored on site until enough is collected for pickup by a licensed hauler. The station is also an E-Cycle site, for the collection of electronic waste (e-waste), including televisions, computer monitors, and computers. These materials are collected by a licensed e-waste collector. All collection areas are secured by a perimeter fence and required the handling and/or supervision of a transfer station attendant to provide better control for collection and site maintenance and cleanliness. Additional information on HHW and e-waste is included in the MRW Section of this Plan.

The transfer station is in general compliance with WAC 173-304-410. The facility is appropriately enclosed in a chain link fence with a secured gate and sign posting the operating hours. The fence limits unauthorized access and litter from being blown offsite. Transfer station operators take the necessary steps to control dust, odor, and noise. Surface water drainage is also well managed, though continued maintenance of the surface water system is required. The equipment at the transfer station has reached its lifespan, and needs to be replaced. The County may consider a new system to replace the existing ram loading system.

Waste collected by BDI from Dayton, is hauled to BDI's transfer station in Pasco, WA where it is compacted with other waste from BDI's service area and transferred to Finley Butte landfill for disposal. Waste collected by Basin Disposal from the unincorporated areas of the County is disposed at Sudbury Landfill in Walla Walla.

3.2.1 Waste Transfer Options

The following options were evaluated by the SWAC for waste transfer.

3.2.1.1 Upgrade Existing Transfer Station Equipment

Two of the transfer trailers used at the transfer station were purchased in 1978, and one was purchased in 2005, each with estimated service lives of 15 years. The County is moving forward with the installation of a new stationary compacter and bin system to replace the existing compactor trailers. In the future, the County may consider upgrading the transfer station to include a tamping crane and top-loading trailers or the use of a stationary compactor. The use of open top trailers or a stationary compactor inside the transfer station building instead of compacting the waste in the existing self-contained trailers would allow for greater payloads (amount of MSW per trailer load) by using lighter trailers resulting in fewer trips to the landfill for disposal. The weight of a self-contained compaction trailer is greater than standard trailers because the weight of the ram, motor, hydraulic system, and the thicker walls required for compaction. The additional trailer weight reduces the payload by

approximately five tons which means that more trips to the landfill are required. This additional weight is transported back and forth between the transfer station and the landfill instead of being used for MSW. Building modifications and installation of a crane/open top or stationary compactor would require significantly greater capital costs (estimated $250,000-$500,000 for compactor and $500,000 to $1 million for crane scenario) but could provide savings over the long term with less maintenance and transportation costs.

3.2.1.2 Implement Additional Funding Sources

The existing transfer station operations, bin recycling program, and other solid waste operations are funded by the County, from tipping fees, some State grants and other revenue sources as available. Presently, the funding is not adequate to cover operational expenses or needed upgrades to equipment. In addition, new programs, such as an expanded materials exchange or other recycling programs will not be possible without additional revenue. One option for the County is to implement program fees for transfer, waste reduction, and recycling programs. Program fees would be paid by the transfer station users, as well as the City of Dayton and Starbuck to fund ongoing operations and future improvements to the solid waste system. The County should conduct a thorough financial analysis of system costs and revenues, and determine an adequate program fee to be implemented. The fee could be based on population, tons, or other factors.

The County should continue to seek grant opportunities from Ecology and other sources for Transfer Station operations and maintenance. Grant monies could be used for enhancements to the station's equipment, programs, and other aspects of the facility.

3.2.1.3 Flow Control Ordinance

The County is authorized by Chapter 36.58 RCW to designate disposal sites for all solid waste collected in the unincorporated areas of the County. The flow control ordinance could be established that requires all solid waste generated and collected in the unincorporated areas of Columbia County to be disposed of at sites designated by the County. Waste flow control in the incorporated jurisdictions could be established through the Interlocal Agreements. These agreements could state that solid waste collected within the boundaries of each city/town will be delivered to the County for disposal. Enforcement of the ordinance could be through local law enforcement. The U.S. Supreme Court has ruled that implementing flow control measures does not violate the Commerce Clause of the US Constitution because the processing facilities are owned and operated by a public entity, and that there is a greater benefit to the public from ensuring the sound financing of the system.

The County will work with the City of Dayton and Town of Starbuck to evaluate the potential for entering into an agreement to direct all waste to the County's transfer station. The purpose of the agreement would be to guarantee a waste flow to the transfer station, in order to maintain adequate revenue to operate and maintain the facility. The County would transfer the waste from the transfer station to another facility for proper disposal. This option will require upgrading of equipment at the transfer station to accommodate increased quantities of waste and other equipment needs.

3.3 WASTE DISPOSAL

The City of Dayton formerly operated a "city dump", which was closed in 1978, in accordance with Ecology's guidelines at the time. The City of Starbuck also used to operate a "city dump" as discussed in the 1975 CSWMP. It has also been closed and is no longer used for solid waste activities. The 1975

CWSMP also reported 27 unauthorized, open dumpsites scattered across the rural areas in the County. These sites were generally reported to be on county road right-of-ways or on private property and could present potential environmental health risks. Currently, all such dump sites discovered in the county road right-of-ways are cleaned up and closed. Permitting of the remaining sites located on private, single-family farms or ranches and dispose only of solid waste resulting from their own domestic, on-site activities is not required per WAC 173-304-400.

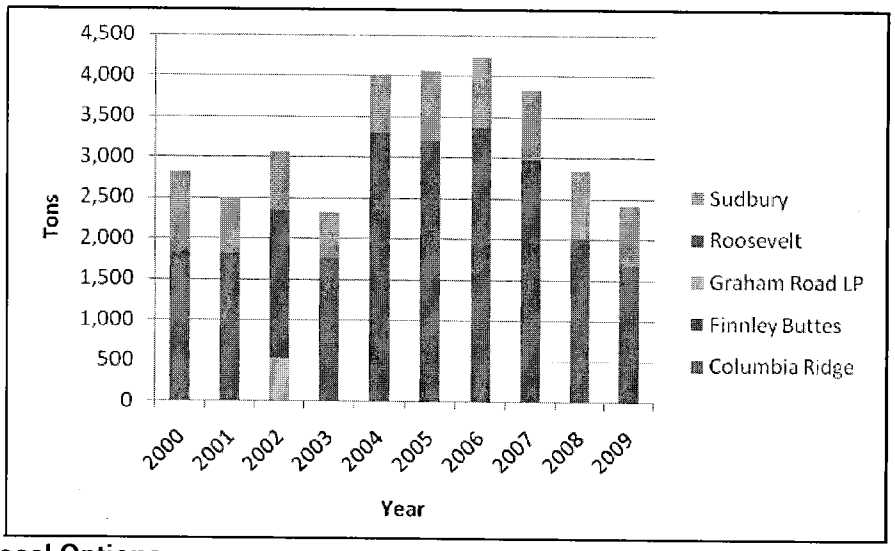
Historically, waste from Columbia County was disposed of at the Regional Disposal Company's (now Allied Waste Service's) Roosevelt Regional Landfill, located in Roosevelt, WA, Sudbury Landfill in Walla Walla, Washington, Columbia Ridge Landfill owned by Waste Management located outside of Arlington, OR, and Waste Management's Graham Road facility west of Spokane, WA.. Since 2004, some of the waste generated in the County has been transported to Finley Buttes Landfill, located in Boardman, OR, for disposal.

Sudbury Landfill, located west of Walla Walla on Sudbury Road, is owned and operated by the City of Walla Walla. The landfill is open six days per week and accepts Columbia County-generated waste both from the County's transfer station and from Basin Disposal of Washington, who hauls waste collected in the unincorporated areas of Columbia County to Sudbury Landfill. The landfill is approximately 800 acres and receives an average 55,000 tons of solid waste per year, or 150 tons per day. The landfill is able to expand into another 700 acres as needed and the site is estimated to have sufficient capacity far into the future.

Finley Buttes Landfill, owned and operated by the Finley Buttes Regional Landfill Company, is located in Morrow County, Oregon, approximately 12 miles south of Boardman, Oregon. Finley Buttes has been the sole MSW disposal site for solid waste collected in Dayton since 2005. The landfill is designed, constructed and operated to be in compliance with all requirements of the Oregon Department of Environmental Quality (DEQ) and EPA Subtitle D MSW landfill requirements. Finley Buttes Landfill occupies a permitted 510-acre site and the estimated available fill capacity at the site, as currently permitted by the Oregon DEQ, is approximately 90 million tons.

Historic disposal tonnages and landfills used from 2000 to 2009 based on information from Ecology and the County are shown in Exhibit 3-4.

Exhibit 3-4. Historical Disposal Tonnage



3.3.1 Disposal Options

The following options were considered by the SWAC for waste disposal.

3.3.1.1 New Disposal Site for Transfer Wastes

The County presently transports waste from the transfer station to the Sudbury Landfill in Walla Walla. Typically, 1-3 trucks per week are transported from the County to Walla Walla. The average roundtrip time is between two and three hours. One option for the County is to transfer its waste to the BDI facility in Pasco. The waste would then be transferred by BDI to the Finley Buttes landfill in Oregon. The County should evaluate the costs and benefits of this option, and determine if the option would result in lower costs and more efficient operations.

3.3.1.2 Establish Disposal District

The County could consider establishing a solid waste disposal district to provide funding for ongoing operation of the transfer station and other solid waste services. The County is authorized under RCW 36.58.100 to establish one or more solid waste disposal districts within the County for the purpose of providing and funding solid waste disposal services. The disposal district may not include any area within the corporate limits of a city or town unless the city or town governing body adopts a resolution approving inclusion of the area within its limits. The disposal district can be established by the Board of County Commissioners upon a determination that it is in the public interest to form the district and the County adopts an ordinance creating the solid waste disposal district and establishing its boundaries. The County commissioners would then be the governing body of the solid waste disposal district. All moneys received by a solid waste disposal district shall be used exclusively for district purposes. A solid waste disposal district may levy and collect an excise tax on the privilege of living in or operating a business in a solid waste disposal taxing district sufficient to fund its solid waste disposal activities, except that any commercial property would be exempt if the owner is providing regular collection and disposal. The excise tax would be billed and collected at times and in the manner fixed and determined by the solid waste disposal district. Penalties for failure to pay the tax on time may be provided for.

3.4 COMPOSTING

Composting is defined as the controlled biological decomposition of yard wastes to produce a humus-like product. Applied as a soil amendment, compost provides organic matter and nutrients, loosens tightly packed soils, and helps retain moisture. Yard waste is typically defined to include lawn clippings, leaves, weeds, and pruning from shrubs and trees. Because pruning is included in the definition of yard waste, composting in Columbia County is considered to include chipping brush. In general, yard waste compositing programs are viewed as being more feasible than some other types of diversion or recycling programs for Columbia County due to the availability of local processing and end use.

As shown in Table 2-1, yard waste is estimated to compose approximately 12% of the waste stream disposed of in Columbia County. Records provided by Ecology indicate that yard waste comprises approximately 5.3%, or 218 tons per year, of the solid waste stream that is being diverted. Annual historical yard waste tonnages reported for Columbia County are provided in Table 3-3.

Table 3-3. Columbia County Yard Waste Diversion, 2001-2008

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009
Yard Waste (tons)	149	200	300	120	204	150	400	500	300

3.4.1 Existing Composting Facility

In 1999, a composting facility was constructed by the County, with funding provided by the capital improvement Referenda Grant from the Department of Ecology. The facility, located on County property approximately 1.5 miles northeast of Dayton on Eager Road, just off State Route 12, is presently operated by Columbia Compost. The facility is open year-round, only on Saturdays, from 10 am to 1 pm. Residents are charged $10 per load of material, and commercial customers are charged $25 per load. The facility accepts limbs, branches, untreated lumber, lawn clippings, leaves, and flowers. No inert materials such as rocks, dirt, metal, plastic, or refuse is accepted. The facility is also approved to accept pre-consumer food waste (such as from supermarkets). The facility permit would need to be revised to allow for post-consumer food waste.

Columbia Compost engages a multiple-stage composting process to produce a high quality soil amendment. The material received at the composting facility is first chipped or ground to produce a rough mulch material. The mulch material is then placed into long, narrow piles called windrows. The windrows are turned on an approximately weekly basis to provide aeration and mixing for the degradation process. When the composting process is finished, the material is screened. This approach results in uniform compost material within 6 to 12 months. This method of processing yard waste has been very successful for the County and the composting facility has even expanded its processing area at the centralized collection facility to adequately manage the volume of material received.

A front-end loader is used to move the incoming yard waste and processed material around the facility. Other equipment at the facility includes tractor, screen, turner, and dump truck. Columbia Compost distributes finished compost material to County residents at the facility and also delivers materials to some customers.

The existing composting facility is not centrally located in the County. In order to reduce haul costs and make it more convenient to self-haulers, the County may consider re-locating the composting operation or providing yard waste drop boxes for temporary storage and hauling to the compost facility.

3.4.2 Composting Options

The following options were evaluated by the SWAC for composting.

3.4.2.1 Relocate Existing Composting Facility

The existing composting facility is located on County property, approximately 1.5 miles northeast of Dayton. The site is used by self-haulers. This option would evaluate relocating the facility to a more centrally located site in the County. Relocating the site would make the site more convenient to self-haulers. The County would work with the facility operator and City of Dayton to identify potential sites, and evaluate the costs and benefits of relocating the facility.

3.4.2.2 Close Existing Composting Facility

If the facility cannot be relocated, the existing facility could be closed, and the County could evaluate alternatives, including establishing container collection sites and/or arranging for the transfer of the materials to an alternative site for processing. A third alternative is curbside collection of greenwaste, which is discussed in Chapter 4, Section 4.3.2.

3.5 ENERGY RECOVERY AND INCINERATION

Incineration of solid waste as a means of reducing the overall volume of solid waste and destroying certain components through combustion was addressed in the 1994 CSWMP. At that time, the only incinerator within the County was located at the Columbia County Hospital. That incinerator was used for destruction of certain medical wastes. Due to a change in Ecology's regulations and specifications for biohazard medical waste incineration, the hospital discontinued its incineration practices. There are currently no solid waste incinerators within the County.

3.6 RECOMMENDATIONS

Each of the options discussed in this section were reviewed by the SWAC members and evaluated for implementation based on a number of factors, including ability to meet the Plan goals and objectives, financial impacts, and timing of implementation. The recommendations identified below represent an approach that will provide for continued progress towards meeting local and State goals regarding solid waste management, waste reduction and diversion. The recommended policies and programs will be implemented while maintaining a balance of costs and diversion benefits to county residents. The County and City and Town will continue to monitor the results of Plan implementation to determine program results and effectiveness.

For a complete description of each option, refer to sections 3.2.1, 3.3.1, and 3.4.2.

3.6.1 Upgrade Existing Transfer Station Equipment
3.6.2 Implement Additional Funding Sources
3.6.3 Implement Flow Control Ordinance

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4.0 Waste Reduction and Recycling

4.0 WASTE REDUCTION AND RECYCLING

This section provides an update of the County's waste reduction and recycling activities, and fulfills requirements to demonstrate how the following goals will be met:

- Washington State's Beyond Waste Plan goal to eliminate wastes and toxics whenever we can and use the remaining wastes as resources.
- Eliminate yard debris from landfills by 2012 in those areas where alternatives exist.
- Source separation of waste (at a minimum, separation into recyclable and non-recyclable fractions) must be a fundamental strategy of solid waste management.
- Make recycling at least as affordable and convenient to the ratepayer as mixed waste disposal.

This section includes a description of the existing policies, programs and facilities for reducing and recycling municipal solid waste that is generated and disposed in Columbia County. In addition to waste reduction and recycling, the CSWMP also discusses waste diversion practices, which are methods that keep wastes from being disposed (landfilled and incinerated) but do not necessarily meet the definition of recycling.

Based on the evaluation of the existing conditions, options for new waste reduction, diversion, and recycling activities were identified and evaluated. Recommendations at the end of the section are made for programs to be implemented that will increase waste reduction, diversion, and recycling in Columbia County over the planning period.

4.1 WASTE REDUCTION

Waste reduction is the adoption of practices that generate less waste. By decreasing the amount of waste that must be disposed, waste reduction programs decrease the need for collecting, processing and disposal of waste. Reusing a grocery bag, buying materials in bulk, and reselling unwanted items are typical examples of waste reduction.

Activities and practices that reduce the amount of wastes that are generated are classified as "waste reduction." Waste reduction is the highest priority for solid waste management according to RCW 70.95. The County's planning goals in the area of waste reduction include the following:

- Increase waste reduction, recycling and recovery efforts and accomplishments.
- Revitalize the public education program, including public and private schools, to teach and encourage methods of waste reduction, recycling, composting, and other new solid waste programs as applicable
- Reduce the waste stream on a continuing basis to reach the goal of an additional 10% by year 2015.

The following presents a discussion of existing waste reduction programs and includes options for residential and commercial waste reduction programs.

4.1.1 Existing Waste Reduction Programs

Waste reduction reduces the need for collection, processing, marketing, or disposal of waste by local governments. It is the State's top priority in the hierarchy for managing solid waste and is therefore an important element in this solid waste management plan. Personal and commercial efforts in waste reduction cover a broad range, but tracking of these efforts is difficult and therefore not well documented. Waste reduction could be shown to be handling significantly more waste if the personal and commercial efforts could be measured more completely.

Over the years, the County has initiated a variety of waste reduction activities, including:

- Public education and outreach
- Master Composter training and certification
- Waste audits

Presently, the Transfer Station has a materials exchange program for household paint, where County residents can drop-off and pick up paint free of charge. This reuse and waste reduction practice reduces the need for the purchase of new paint, and the need for further handling, processing, and/or disposal of the paint.

4.1.2 Waste Reduction Options

The following options were considered by the SWAC for waste reduction.

4.1.2.1 Environmentally Preferable Purchasing

Environmentally preferable products typically are defined as products that have a lesser or reduced effect on human health and the environment when compared with competing products that serve the same purpose. They include products that have recycled content, reduce waste, use less energy, are less toxic, and are more durable.

Some of the benefits of EPP include:

- Improved ability to meet existing environmental goals.
- Improved worker safety and health.
- Reduced liabilities.
- Reduced health and disposal costs.

Columbia County and the cities could consider environmentally preferable purchasing criteria for computers and electronics (such as CPUs, monitors, keyboards, printers, fax machines, and copiers) which could include:

- Compliance with federal Energy Star Guidelines.
- Reduced toxic constituents.
- Reduced toxic materials used in manufacturing process.
- Recycled content plastic housing.
- Pre-installed software and on-line manuals.
- Designed for recycling/reuse.

- Upgradeable/long life.
- Reduced packaging.
- Manufacturer provides product take-back service.
- Manufacturer demonstrates corporate environmental responsibility.

Implementing EPP options can result in the purchase of computers with lower operating costs, extended useful lives and reduced disposal costs.

4.1.2.2 Producer Responsibility/Product Stewardship Policy

Producer Responsibility, also known as Product Stewardship, is an environmental management strategy that means whoever designs, produces, sells, or uses a product takes responsibility for minimizing the product's environmental impact throughout all stages of the products' life cycle. The greatest responsibility lies with whoever has the most ability to affect the life cycle environmental impacts of the product.

Product Stewardship encourages all manufacturers to share in the responsibility for eliminating waste through minimizing excess packaging, designing products for durability, reusability and the ability to be recycled; using recycled materials in the manufacture of new products; and providing financial support for collection, processing, recycling, or disposal of used materials. This approach shifts the existing product waste management system from one focused on government funded and ratepayer financed waste diversion to one that relies on producer responsibility in order to reduce public costs and drive improvements in product design that promote environmental sustainability.

The County, City and Town can become Associate Members of the Northwest Product Stewardship Council (NWPSC). Associate members are local, state, regional and federal government agencies, businesses, and non-profit organizations that support the NWPSC mission and product stewardship principles. Associate Members are required to sign on to the program on behalf of their entire agency or organization. Associate Members agree to support product stewardship programs and legislation as their agency or organization allows.

The next step is to work closely with local businesses to promote producer responsibility through voluntary initiatives and take-back programs and to work with communities regionally and statewide on more comprehensive measures. Some of the next measures the County can also consider undertaking include:

- Adopt a procurement policy that includes Extended Producer Responsibility (EPR)
- Consider partnerships with local businesses to take-back products they sell that are hazardous
- Publish articles in newsletters highlighting the program to the general public
- Identify businesses, especially manufacturers, and meet with them to explain the program

4.1.2.3 County/City Waste Reduction Policies

In addition to educating consumers and businesses, it is important for local governments to "practice what they preach." Through numerous small choices employees make each day, large amounts of waste can be prevented. Employees should be encouraged to work toward implementing and promoting waste reduction practices.

Such practices by County/City employees should be implemented whenever practicable and cost-effective. Examples include:

- Electronic communication instead of printed, double-sided photocopying and printing.
- Using copiers and printers capable of duplexing.
- Allowing residents to submit electronic rather than paper forms and applications.
- Purchasing and using washable and reusable dishes and utensils.
- Purchasing and using rechargeable batteries.
- Streamlining and computerizing forms.
- Leasing long-life products when service agreements support maintenance and repair rather than new purchases, such as carpets.
- Sharing equipment and occasional use items.
- Choosing durable products rather than disposable.
- Reducing product weight or thickness when effectiveness is not jeopardized in products such as, but not limited to, paper and plastic liner bags.
- Buying in bulk, when storage and operations exist to support it.
- Reusing products such as, but not limited to, file folders, storage boxes, office supplies, and furnishings.

County and City employees are most knowledgeable about ways that waste can be reduced or even eliminated and their ideas are essential. Adopted policies should be reinforced through employee incentives for outstanding performance.

4.1.2.4 Reuse and Swap Shops

Some communities establish reuse and swap operations at landfills and transfer stations. After passing over the scales, customers can voluntarily set items that are deemed in usable condition in a designated area. Other residents can pick up the item at no charge after signing a hold harmless waiver. The County could expand the current used paint exchange program at the transfer station for other household hazardous waste and other reusable items, such as such as bicycles, toys, electronics, and construction materials. The County would advertise these operations to keep these materials out of the landfill, and increase diversion.

4.1.2.5 Online Waste Exchange

Washington State offers a statewide, online materials exchange: www.2good2toss.com, for municipalities. This website provides a free, online bulletin board for residents to sell or give away used, but useable items, instead of sending them to the landfill. The County could subscribe to the service, and provide a link to the site on the County's website. County personnel would be required to update and maintain the services.

4.1.2.6 Waste Reduction Requirements for New Developments

The County could require new residential and commercial development projects to incorporate measures to reduce the amount of waste generated during construction and operation. Examples include incorporating green building guidelines such as recycled content building materials, material reuse and recycling requirements, landscaping specifications, and other measures.

4.1.2.7 Methods to Measure Waste Reduction Results

Waste reduction is the top solid waste management priority, but it is inherently difficult to measure something that has not been produced. In 1997, the US EPA finalized a document titled "Source Reduction Program Potential Manual" that Ecology staff recommended for use.

The work developed by EPA is based on "program potential" and whether a specific waste reduction program has the potential to reduce a significant portion of the waste stream in a cost-effective manner. The manual provides guidance for calculating program potential for the following programs: grass-cycling, home composting, clothing and footwear reuse, office paper reduction, converting to multi-use pallets, and paper towel reduction.

Waste reduction successes can also be measured qualitatively, through observed changes in industrial processes, reduced per capita solid waste disposal quantities, purchasing patterns, shifts in public perception as identified through surveys, business policies, and county and city initiatives and ordinances.

4.1.2.8 Sustainable or Zero Waste Management Policy

The County could adopt a Sustainable or Zero Waste Management Policy. Zero waste is defined as a philosophy and visionary goal that emulates natural cycles, where all outputs are simply an input for another process. It means designing and managing materials and products to conserve and recover all resources and not destroy or bury them, and eliminate discharges to land, water or air that do not contribute productively to natural systems or the economy.[1] The vision of zero waste is to strive for sustainability.

Zero Waste means setting the goal of diverting from landfill at least 90 percent of the waste generated by all sources, both business and residential. Zero Waste is meant to:

- Reduce excess consumption
- Minimize unnecessary waste
- Encourage recycling to the maximum extent possible
- Ensure that products are made to be reused, repaired or recycled back into nature or the marketplace

Zero waste is a design framework for reducing the generation of waste and maximizing diversion, not a strict tonnage goal. Zero waste is not a literal goal like "100 percent recycling"; we may always have some materials that cannot be recycled and cannot be designed out of the system.

[1] Zero Waste International Alliance

Many cities and states across the nation are adopting zero waste or similar goals to reduce waste, and greenhouse emissions. The State's Beyond Waste Plan also strives for sustainability, and the County policy would be in alignment with the Beyond Waste Plan goals and objectives.

4.2 RECYCLING

Recycling has been established by the State as a fundamental aspect of solid waste management, which is reflected in various sections of the Revised Codes of Washington (RCW) 70.95. Specifically, solid waste management plans should provide programs that:

- Provide incentives and mechanisms for source separation.
- Establish recycling opportunities for source separated waste.

The County's planning goals in the area of recycling, similar to waste reduction, include the following:

- Increase waste reduction, recycling and recovery efforts and accomplishments.
- Revitalize the public education program, including public and private schools, to teach and encourage methods of waste reduction, recycling, composting, and other new solid waste programs as applicable.
- Reduce the waste stream on a continuing basis to reach the goal of an additional 10% by year 2015.

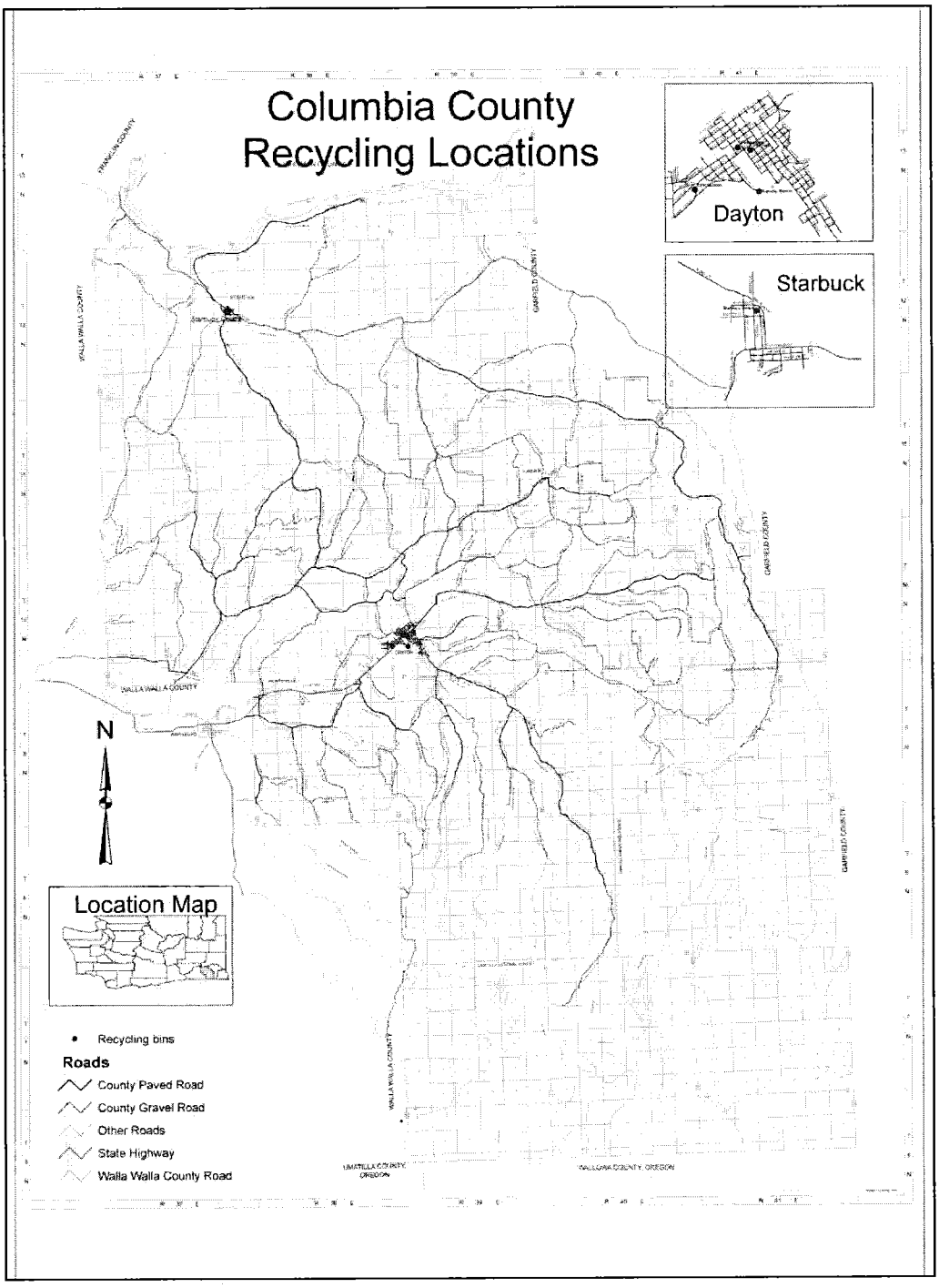
4.2.1 Existing Recycling Programs

The County operates a system of recycling bins for the collection of recyclables from residents and businesses. The bins are compartmentalized for the separate collection of aluminum cans, mixed paper, cardboard, newspaper and glass. The bins are serviced by Basin Disposal, Inc. (BDI) under contract to Columbia County. The materials are transported to BDI's facility in Pasco, where they are processed for sale to commodities markets. A map showing the locations of the existing recycling bins is shown in Exhibit 4-1. In addition to the compartmentalized bin, the transfer station also has a cardboard compactor, which is also serviced by BDI. The total quantity of materials collected in the bins in 2008 and 2009 is shown in Table 4-1.

Table 4-1. 2008-2009 Recycling Bin Collection (tons)

Material Type	2008	Percent (by weight)	2009	Percent (by weight)
Aluminum	3.9	4%	2.9	3%
Mixed Paper	24.4	22%	20.5	18%
Cardboard	42.1	38%	43.9	40%
Newspaper	26.4	24%	30.8	28%
Glass	12.7	12%	13.0	12%
Total	**109.5**	**100%**	**111.1**	**100%**

Exhibit 4-1. Recycling Bin Locations



The County Public Works office and Dayton City Hall recycle white paper and aluminum cans. The school district has a recycling program for paper and containers as well.

Data was presented in Chapter 2 on recycling and diversion in the County as reported by Ecology. The Ecology data may include recycling information reported by the County residents, businesses and other recyclers on the types and quantities of materials recycled in the County.

4.2.1.1 Designation of Recyclables

The Washington Administrative Code (WAC 173-350-100) defines Recyclable Materials to mean, "those solid wastes that are separated for recycling or reuse, including, but not limited to, papers, metals, and glass that are identified as recyclable material pursuant to a local comprehensive solid waste plan." In order for any material to be considered a recyclable material under Chapter 173-350, it must be identified as such in the local comprehensive solid waste management plan. If a material is not identified in the plan as recyclable, then the ability of the person/company wanting to recycle this material and the ability to benefit from some of the exemptions granted under Section 350 does not exist.

The following materials are designated as recyclable in Columbia County:

1. Newspaper
2. Cardboard
3. Aluminum and Tin cans
4. Mixed Paper
5. Glass
6. Ferrous and Non-Ferrous metals
7. Yard waste
8. White Goods
9. Used Oil
10. Electronic waste
11. Plastic containers
12. Tires
13. Anti-freeze
14. Batteries (household and auto)
15. Latex paint
16. Alternative fuels (kerosene)

The addition or deletion of materials accepted for recycling will require ongoing evaluation and will be based on several factors such as market stability and collection and processing costs. As required by the planning guidelines, criteria have been developed for adding or removing materials from the above list of materials. The following will be considered for adding new materials:

- Local markets and/or brokers expand their list of acceptable items based on new uses for materials or technologies that increase demand.
- New local or regional processing or demand for a given material occurs.
- Sufficient quantity of the material is available in the waste stream.
- The material can be collected efficiently and has minimal processing requirements.
- Other conditions not anticipated at this time.

Removing materials from the list requires:

- The market price becomes so low that it is not longer feasible to collect, process, and/or ship to markets.
- No market can be found for an existing recyclable material, causing the material to be stockpiled with no apparent solution in the near future.
- Other conditions not anticipated at this time.

Although it is unlikely that any existing recyclables would be removed from the current collection program barring a sudden shift in market conditions, it is likely that additional markets might become available for materials not currently recycled.

A proposal to add or delete a designated recyclable material will be brought to the SWAC, who will vote for or against the proposal. In the event the SWAC is not scheduled to meet in a timely manner, the County solid waste manager or his designee will make the decision, utilizing the above-referenced criteria. Following approval or non-approval of the proposal, all parties in the County will be notified of the addition or deletion of the material.

4.2.1.2 Urban and Rural Designation

The planning guidelines recognize that there are differences in the services that can be offered to urban versus rural areas for solid waste services. The guidelines require solid waste management plans to identify urban/rural service areas for the purpose of determining:

- Required recycling programs for single and multi-family residences.
- Voluntary services for rural areas such as conveniently located drop-off boxes and buy-back centers.

The Washington Office of Financial Management defines counties with population densities of less than one hundred persons per square mile as rural. The entire County is considered rural, with a population density of 4.7 persons per square mile. The rural nature of Columbia County limits the economic feasibility of certain methods of recyclables collection. For example, curbside collection may not be economically feasible.

4.2.2 Recycling Options

The following options were considered by the SWAC for recycling.

4.2.2.1 Enhance Existing Recycling Programs for Residential and Commercial Customers

This option includes a number of programs for enhancing the existing recycling drop-off program for residential, commercial, industrial, and institutional sectors.

a. Establish a new recycling center

   This option would establish a new recycling center on County property in Dayton, or other centrally located site. The objective would be to consolidate the recycling services, and make recycling opportunities more convenient to residents and businesses. If recommended, the County will need to identify potential sites, and evaluate the potential costs and benefits of this option.

b. Commingled materials collection

   This option would modify the existing drop off bins to collect materials commingled together, instead of separated by material types. The benefits of this option would be to increase the types and quantities of materials collected, such as adding plastic containers. The option would also increase the collection efficiency of the materials by the contractor. However, collection of

commingled materials can decrease the overall quality of the recyclables, for example by contaminating the recyclable paper with glass or plastic. If recommended, the County will work with BDI to evaluate the costs and benefits of the program, and to determine the best approach for implementation.

4.2.2.2 Periodic Evaluation of Adding or Removing Materials From Recycling Programs

This option would require the County to annually consider adding new material types to the drop-off centers, such as plastics or electronics waste. Enhancing collection of materials for residents and businesses can result in increases in diversion rates ranging from 2% to 5%, depending on the types of materials targeted, percentage makeup of the waste stream, public participation, commitment to implementation, and the time frame used in the assessment.

4.2.2.3 Implement Curbside Recycling Collection in the City of Dayton

The City is considering the addition of curbside recycling collection for residents. The options to be considered would be mandatory (all residents charged for the service) or subscription based (residents would choose to participate in the program). The City is discussing various options with the contracted hauler, BDI, and will evaluate the costs and benefits of the program.

4.2.2.4 Event Recycling

A new law (RCW 70.93.093) concerning event recycling became effective in Washington on July 22, 2007. The law states that "in communities where there is an established curbside service and where recycling service is available to businesses, a recycling program must be provided at every official gathering and at every sport facility by the vendors who sell beverages in single-use aluminum, glass, or plastic bottles or cans." Beverage vendors are responsible for providing and funding the recycling program. A recycling program must include and provide:

- Clearly marked recycling receptacles or reverse vending machines.
- Collection of aluminum, glass, or plastic bottles or cans that contained the beverages sold by the vendor.
- Transportation and recycling services for the collected materials.

Although the County is not required to comply with the law at this point, there are a number of special events and public venues in the region at which recycling opportunities could be provided, including Dayton Days and the National Night Out. These special events and venues present a different kind of recycling challenge:

- Substantial amounts of waste are generated in a short period of time.
- There is a need to coordinate with vendors, event organizers, and others involved with a given event.
- Education and monitoring is important, because contamination is a problem at most special events and public venues.

Generally, such events/venues generate significant volumes of corrugated cardboard from vendors. Generation of steel, aluminum, glass, and plastic containers may vary depending on what food/drink

vendors are offering. One option is simply to encourage vendors to reduce waste and encourage recycling through use of recyclable/refillable containers, minimal packaging, and bulk condiments in containers (rather than single serve packages). Because it is difficult to anticipate volumes and exact types of materials, it is probably best to collect all recyclable containers commingled in public areas, and provide separate containers for cardboard generated by vendors in areas not open to the public.
The number and types of collection containers and how they are serviced will need to vary some-what based on the size, area, and nature of the event. Even with specially designed containers, however, contamination will probably still be a problem. To reduce this problem, volunteers from organizations could act as monitors at recycling points to greet and educate the public about recycling and raise recycling awareness.

4.3 ORGANICS

The Ecology Solid Waste Management planning guidelines require yard waste collection programs where there are "adequate markets or capacity for composted yard waste within or near the service area to consume the majority of the material collected." The County's planning goal for organics includes encouraging composting of organic wastes, with the following objectives:

- Continue to encourage backyard composting and offer the Master Composter training
- Continue to coordinate with the Department of Ecology on organics programs
- Continue to increase public awareness of the compost facility through advertising and education

Another related goal is to revitalize the public education program, including public and private schools, to teach and encourage methods of waste reduction, recycling, composting, and other new solid waste programs as applicable. Objectives under this goal include:

- Continue to pursue grants from the Department of Ecology
- Utilize programs already developed by other entities, both State and local, including education tools

4.3.1 Existing Organics Programs

As described in Chapter 3, the County established a composting facility in 1999. The facility is located on County property, and is operated by Columbia Compost. The facility is open to the public, and processes primarily yard waste, including limbs, branches, untreated lumber, lawn clippings, vegetables, leaves, and flowers. The facility can also accept pre-consumer food waste, and in the past has processed some of this material. A detailed description of the compost facility operations, and quantities of materials processed, is included in Section 3.4 of this Plan.

In the spring and fall, the City of Dayton offers a free curbside collection of yard waste from residents. The materials are taken to Columbia Compost for processing.

4.3.2 Organics Options

4.3.2.1 Additional Yard Waste Collection Opportunities

The County could provide drop off sites for yard waste at locations in addition to the Transfer Station and compost facility. Potential options include the recycling bin sites. The County would provide a bin for the collection of the yard waste, and then transfer the materials to the compost facility. If recommended, the County will evaluate the costs and benefits of this service.

4.3.2.2 Implement Curbside Yard Waste Collection For Residents

The City of Dayton is considering implementing a curbside yard waste collection service for residents. The service could be provided every week or every other week. The materials collected would be processed for mulch, composting, or other uses. The City is discussing various options with the contracted hauler, BDI, and will evaluate the costs and benefits of the program. As part of this option, the Columbia Compost facility would then be used only by municipal and commercial users, which could maximize the diversion rates and minimize costs to the private operator, and provide a more sustainable management plan for the facility.

4.3.2.3 Encourage Food Waste Management By Commercial Sector

Programs may include food donation to charitable organizations, or use of the composting facility for pre-consumer food waste. The County would work with supermarkets, restaurants, the school district and hospital to identify opportunities for donation and/or composting.

4.3.2.4 Curbside Yard Waste Collection in County Unincorporated Area

This option would provide curbside collection of yard waste every other week during the months of April through November. The materials would be collected by BDI under the existing certificate, and taken to their transfer facility. This option could be implemented with option 3.4.2.2, closing the Composting Facility.

4.4 RECOMMENDATIONS

Each of the options discussed in this section were reviewed by the SWAC members and evaluated for implementation based on a number of factors, including ability to meet the Plan goals and objectives, financial impacts, and timing of implementation. The recommendations identified below represent an approach that will provide for continued progress towards meeting local and State goals regarding solid waste management, waste reduction and diversion. The recommended policies and programs will be implemented while maintaining a balance of costs and diversion benefits to county residents. The County and City and Town will continue to monitor the results of Plan implementation to determine program results and effectiveness.

For a complete description of each option, refer to Sections 4.1.2, 4.2.2, and 4.3.2.

4.4.1 Implement Environmentally Preferable Purchasing
4.4.2 Implement Producer Responsibility/Product Stewardship Policy
4.4.3 Implement County/City Waste Reduction Policies

4.4.4 Establish online Waste Exchange
4.4.5 Implement Waste Reduction Requirements for New Developments
4.4.6 Implement Methods to Measure Waste Reduction Results
4.4.7 Implement Sustainable or Zero Waste Management Policy
4.4.8 Enhance Existing Recycling Programs for Residential and Commercial Customers
4.4.9 Conduct Periodic Evaluation of Adding or Removing Materials from Recycling Programs
4.4.10 Evaluate Curbside Recycling Collection in the City of Dayton
4.4.11 Implement Event Recycling
4.4.12 Evaluate Adding Additional Yard Waste Collection Opportunities
4.4.13 Evaluate Curbside Yard Waste Collection for Dayton Residents
4.4.14 Encourage Food Waste Management by Commercial Sector
4.4.15 Evaluate Curbside Yard Waste Collection in County Unincorporated Area

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5.0 Moderate Risk Wastes

5.0 MODERATE RISK WASTES

5.1 INTRODUCTION/BACKGROUND

This section constitutes the 2010 Moderate Risk Waste/Local Hazardous Waste Management (MRW/LHWM) Plan for Columbia County ("Plan"). Previously, Columbia County had a combined plan with Walla Walla County prepared in 1991. This 2010 Plan is for Columbia County only.

The purpose of this Plan is to establish the goals and objectives for the safe handling and management of moderate risk waste (MRW), household hazardous waste (HHW) and small quantity generator (SQG) waste generated in the County. The Plan will direct and guide the management of these wastes over a twenty year planning period, from 2010 to 2030. The recommendations included in this Plan are based on existing conditions and forecasts of future conditions in the County.

This Plan includes the geographic area of Columbia County, including both the incorporated and unincorporated areas. The lead agency in its development is the Columbia County Department of Public Works. The population distribution across the County averages 4.7 people per square mile, with more residents living in the incorporated cities/towns of the county (70%) as compared to the unincorporated area (30%) In 2009, the total County population was 4,100 people. Population growth from 1990 to 2009 was approximately 1.9 percent, with most growth occurring in the incorporated areas of the county. Estimates prepared by the Washington State Office of Financial Management (medium series) project the population to be 4,088 by the year 2030. This is a decrease of 12 people or a decrease of nearly 0.3% over the 20-year period.

The Plan was prepared with input from the Solid Waste Advisory Committee (SWAC) during the 2010 Solid Waste Management Plan update process. A list of the SWAC members and the meeting dates, along with information on where minutes from those meetings are archived, is included in Chapter 1.

5.2 CURRENT CONDITIONS

The County Transfer Station is used for the collection of MRW. The facility is open Tuesday, Thursday and Saturday from 11:00 a.m. until 4:00 p.m. The types and quantities of MRW materials accepted at the facility in 2009 are included in Table 5-1. A more detailed description of the transfer station is included in Chapter 3.

Table 5-1. MRW Materials Accepted at Columbia County Transfer Station (2009)

Material	Quantity
Motor Oil	745 gals
Paint	(6-55 gal drums/2 years)
Batteries	n/a
Pesticides	n/a
E-waste	7,200 pounds

The County has relied primarily on educational efforts and the collection site at the Transfer Station to encourage proper waste management for residents and businesses that generate MRW and hazardous wastes, respectively. The County focuses educational efforts towards the general public. The County also uses a load inspection program at the transfer station to identify wastes that have been sent to County facilities for disposal, which should be managed through other appropriate means.

5.3 HAZARDOUS WASTE

Businesses or institutions producing or accumulating hazardous waste above the quantity exclusion limits are required to meet a stringent set of regulations when storing, handling, and disposing of their hazardous wastes. In addition, these fully regulated hazardous waste generators must comply with extensive waste tracking and reporting requirements. SQGs must meet certain requirements for identifying and managing their hazardous wastes, but are exempt from portions of the waste tracking and reporting requirements.

Hazardous Waste Generators

Businesses in the County that are registered as hazardous waste generators have an EPA/State identification number issued under Chapter 173-303-WAC, as listed in Ecology's Facility Site Identification (F/SID) database (as of October 2010), and are included in Table 5-2.

Table 5-2. Hazardous Waste Generators

Facility/Site ID	Facility/Site Name	City
41195979	Columbia Rural Elect Assn Inc Patit Shop	Dayton
1158649	Hogeye Ranch	Uninc.
81542237	Chevron USA Inc Dayton Bulk PL	Dayton
41637325	Skyline Fluid Power Inc	Dayton
88963663	QWEST Dayton Co	Dayton
36911969	City Cleaners	Dayton
12459352	WA DOT Dayton	Dayton
7684232	Dayton Tractor & Machine Inc	Dayton
522140	Vestas American Wind Technology	Dayton
45318738	Dayton School Dist 2	Dayton
74797983	USWCOM Starbuck Co	Starbuck
96235642	Columbia County Transfer Station	Dayton
49756867	WA AGR Columbia 1	Dayton
1510022	PSE Hopkins Ridge Wind Farm	Dayton
53597234	Shell Svc Center	Dayton
13635797	Columbia County Farm Bureau Office Store	Dayton
20449158	Seneca Foods Corp Dayton	Dayton
62481757	Dayton Chemicals Inc	Dayton
85257979	Shell Service Center W Main	Dayton
68755121	Ag Link	Dayton

Hazardous Waste Sites

Ecology publishes the Contaminated Sites List as required by WAC 173-340-330. The list is updated twice per year. It includes all sites that have been assessed and ranked using the Washington Ranking Method. Also listed are National Priorities List (NPL) sites. Sites on the Hazardous Sites List (excluding NPL and TSP sites) have undergone a preliminary study called a Site Hazard Assessment (SHA). An SHA provides Ecology with basic information about a site. Ecology then uses the Washington Ranking Method (WARM) to estimate the potential threat the site poses, if not cleaned up, to human health and the environment. The estimate is based on the amount of contaminants, how toxic they are, and how easily they can come in contact with people and the environment. Sites are ranked relative to each other on a scale of one to five. A rank of one represents the highest level of concern relative to other sites, and a rank of five the lowest. Hazard ranking helps Ecology target where to spend cleanup funds. However, a site's actual impact on human health and the environment, public concern, a need for an immediate response, and available cleanup staff and funding also affect which sites get first priority for cleanup. A site may be removed from the list only if the site is cleaned up. In some cases, long-term monitoring and periodic reviews may be required to ensure the cleanup is adequate to protect the public and the environment.

There is only one site listed in the current Hazardous Sites List, as of February 17, 2010. The site is listed as "Skyline Fluid Power Inc" in Dayton with a rank of 2 and a status of "awaiting remedial action."

5.4 TRANSPORTERS AND FACILITIES

Hazardous waste transportation companies that are registered with Ecology which can service businesses in Columbia County are included in Table 5-3. This is a partial list, and does not constitute a recommendation. There are no treatment facilities in the county.

5.5 LEGAL AUTHORITY FOR PROGRAM

Local governments are required by the Washington State Hazardous Waste Management Act (HWMA, Chapter 70.105 RCW) to address moderate risk waste management in their jurisdictions. Moderate risk wastes are hazardous wastes produced by households, and by businesses and institutions in small quantities. Commercial and institutional generators of hazardous waste are conditionally exempt from full regulation under the HWMA, provided that they do not produce or accumulate hazardous waste above specified quantities defined by Ecology (quantity exclusion limits). These "small quantity generators" produce hazardous wastes in quantities that do not exceed the following State regulatory limits:

- 220 pounds (100 kg) of dangerous waste per month or per batch.
- 2.2 pounds (1 kg) of acute or extremely hazardous waste per month or per batch.

In addition, to maintain its status as a small quantity generator, a business or institution may not accumulate more than 2,200 pounds of dangerous waste or more than 2.2 pounds of acute or extremely hazardous waste at one time.

Table 5-3. Hazardous Waste Transporters

Name	City
Able Cleanup Technologies	Spokane
Adar Construction, Inc.	Spanaway
Advanced Waste Services	West Allis
ARCOM Oil	Tacoma
BELFOR Environmental, Inc.	Portland
Big Sky Industrial	Spokane
Bulk Service Transport	Spokane
CCS (a division of PNE Corp.)	Longview
Certified Cleaning Services	Tacoma
Chemical Waste Management	Arlington
Chem-Safe Environmental	Kittitas
Clean Harbors	SeaTac
Coeur d'Alene Dredging	Valleyford
Emerald Services	Seattle
EQ (Environmental Quality Company)	Wayne
FBN Enterprises	Bellevue
HAZCO Environmental Services	Richmond
Innovac	Edmonds
Keep it Clean Recycling and Equipment Company	Redmond
Marine Vacuum Service	Seattle
Phoenix Environmental Services	Tacoma
PSC Environmental Services (ex Philip Environmental Services)	Washougal
Regional Disposal (RABANCO)	Seattle
Safety Kleen	North Highlands
SQG Specialists	Salem
TW Services	Madison
U.S. Ecology	Grand View
Univar USA	Redmond
Veolia Environmental Services (formerly Onyx)	Phoenix
Waste Management of Auburn	Auburn
WasteXpress Environmental Services	Portland

Businesses or institutions producing or accumulating hazardous waste above the quantity exclusion limits are required to meet a stringent set of regulations when storing, handling, and disposing of their hazardous wastes. In addition, these fully regulated hazardous waste generators must comply with extensive waste tracking and reporting requirements. Small-quantity generators must meet certain requirements for identifying and managing their hazardous wastes, but are exempt from portions of the waste tracking and reporting requirements.

In 1991, RCW 70.951.020 was added requiring local governments to amend their local hazardous waste plans to include the Used Oil Recycling Act, for the management of used oil as part of MRW management.

The Beyond Waste Plan, published in 2004, establishes five initiatives as starting points for reducing wastes and toxic substances in Washington. Initiative #2 is Reducing Small-Volume hazardous materials and wastes. The goal of this initiative "...is to accelerate progress toward eliminating the risks associated with products containing hazardous substances." Specifically, the initiative encompasses products and substances commonly used in households and in relative small quantities by businesses.

In 2009, Ecology updated the MRW Planning Guidelines, and in 2010 Ecology updated the Guidelines for the Preparation of Solid Waste Management Plans. Included in the new guidelines are new requirements for a combined Solid Waste and MRW Plan. This section has been prepared to meet the requirements for a combined Solid Waste and MRW Plan.

5.6 FINANCING

Columbia County's MRW program is funded from a number of sources, including revenue from the recycling of some materials, and grant funding. Costs for the program include labor and operations. The 2009 costs and revenue for the Columbia County MRW program are presented in Table 5-4.

Table 5-4. MRW Program Costs and Revenue (2009)

Activity	$ Amount
Costs (includes wages, equipment, operations, maintenance, permits)	$12,650.00
Revenue (includes grants)	$17,555.00

5.7 GOVERNANCE

The legal authority for decisions regarding the implementation of the MRW plan is the responsibility of the Columbia County Board of County Commissioners.

5.8 PROGRAM PHILOSOPHY

The following are the goals and objectives of the Columbia County MRW program:

- Protect natural resources and public health by eliminating the discharge of moderate risk waste into solid waste systems, wastewater treatment system, and into the environment though indiscriminate disposal;
- Manage moderate risk wastes in a manner that promotes, in order of priority: waste reduction, recycling, physical, chemical, and biological treatment, incineration, solidification and stabilization, and landfilling;
- Increase public awareness of available alternatives and the importance of proper disposal of moderate risk wastes;
- Improve opportunities for the safe disposal of moderate risk wastes by citizens and businesses within Columbia County;

- Improve disposal options available to farmers and ranchers for agricultural chemical waste;
- Reduce health risks for workers coming in contact with moderate risk wastes that may be disposed of in the solid waste stream or in wastewater treatment systems;
- Coordinate moderate risk waste management programs with existing and planned systems for waste reduction, recycling, and other programs for solid waste management;
- Encourage cooperation and coordination among all levels of government, citizens, and the private sector in managing moderate risk wastes;
- Emphasize local responsibility for solving problems associated with moderate risk waste, rather than relaying on the state or federal government to provide solutions; and
- Comply with the requirements of the Washington State Hazardous Waste Management Act (RCW 70.105.220) directing each local government to prepare a local hazardous waste management plan.

The County's overall vision is to reduce the generation of MRW, and to eliminate the improper disposal of MRW. Through education and outreach, the County envisions a change in behavior and habits that will accomplish these goals and objectives.

5.9 PROGRAM SERVICES

The County is considering a number of options for household hazardous waste collection, public education, and business technical assistance, as described below:

Household Hazardous Waste collection

The transfer station is used for the collection of MRW from County residents. Education is provided to users on the types of materials that can be dropped off at the facility.

Public Education

Household hazardous waste outreach efforts will be continued and may be increased, including distribution of flyers to households, businesses, at County facilities, and on the County website. These efforts will be continued on an ongoing basis to reach new residents.
The County will utilize flyers/handouts available from Ecology and the Washington Toxics Coalition to distribute information to residents and businesses on MRW generation and disposal

Business Technical Assistance

The County could provide free technical assistance to businesses wanting to learn how to reduce and manage hazardous waste.

5.10 PROCESS FOR UPDATING IMPLEMENTATION PLAN

The County and SWAC will review the Plan on a regular basis to identify any necessary changes to the goals, objectives, and implementation plan. Changes may be deemed necessary due to changes in State law, conditions in the County, budgets, and/or others issues. If changes are identified, the County and

SWAC will work together to develop the changes, for review and approval by the County and local jurisdictions.

5.11 IMPLEMENTATION PLAN

The following constitutes the Implementation Plan for the Columbia County MRW/LHWM Plan.

Household Hazardous Waste Collection

The County will continue to use the Transfer Station for the collection of MRW from County residents. Education will be provided to residents on the types of wastes that are collected at the facility. The Transfer Station load checking program identifies wastes that have been sent to County facilities for disposal, which should be managed through other appropriate means.

Public Education

Household hazardous waste outreach efforts will be continued and may be increased, including distribution of flyers to households, businesses, at County facilities, and on the County website. These efforts will be continued on an ongoing basis to reach new residents.

The County will utilize flyers/handouts available from Ecology and the Washington Toxics Coalition to distribute information to residents and businesses on MRW generation and disposal, including the following:

- Dept. of Ecology publication #'s 09-04-011, 90-BR11, 90-BR9 and 08-04-011
- Washington Toxics Coalition (Alternatives to safer cleaning products)

Business Technical Assistance

The County will provide free technical assistance to businesses wanting to learn how to reduce and manage hazardous waste.

5.12 ANNUAL BUDGET

The County's budget for the implementation of the Plan is included in Table 5-5. Actual budgets to carry out the Plan will vary from year to year as specific programs are defined, and will depend upon availability of grant funding and the budget approved by participating local governments.

Table 5-5. MRW Plan Implementation Budget and Schedule

Activity	Projected Cost	Funding Mechanism (Tip Fees/Grants/Others)	Implementation Year
Public Education	$2,000.00	Grants, tip fees	2010
Business Technical Assistance	$2,000.00	Grants, tip fees	2010
MRW Facility at Transfer Station	$8,600.00	Grants, tip fees	2010

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6.0 Administration and Enforcement

6.0 ADMINISTRATION AND ENFORCEMENT

The Washington State Solid Waste Management Act, RCW 70.95, assigns local government the primary responsibility for managing solid waste, although State agencies have jurisdiction over solid waste issues as well. This chapter describes the administrative and enforcement structure for solid waste management in Columbia County.

6.1 EXISTING CONDITIONS

Administration and enforcement responsibilities for solid waste management in Columbia County are divided among several agencies and jurisdictions. The administrative and enforcement responsibilities of each organization are described below.

6.1.1 Columbia County Public Works Department

RCW 36.58 authorizes Columbia County to develop, own, and operate solid waste handling facilities in unincorporated areas of the county, or to accomplish these activities by contracting with private firms. The County also has the authority and responsibility to prepare comprehensive solid waste management plans for unincorporated areas and for jurisdictions that agree to participate with the County in the planning process.

The County has entered into Interlocal Agreements with the City of Dayton and the Town of Starbuck for the purpose of establishing an integrated and coordinated solid waste management program. Interlocal Agreements are developed in accordance with Chapter 39.34 RCW, Interlocal Cooperation Act, for the purpose of permitting local governments to cooperate with one another in the performance of tasks, thus achieving economies of scale and reducing duplication of effort. An Interlocal Agreement is signed by the authorized officials of the local governments involved, and specifies the services and/or facilities to be provided and any compensation between the local governments for such services and/or facilities. The Interlocal Agreements between Columbia County and the City and Town were approved in 2002, and will remain in effect until rescinded, terminated, or until adoption of a subsequent Plan update. Copies are included in Appendix B.

Columbia County exercises its solid waste responsibilities through the Columbia County Public Works Department. The Public Works Department has the responsibility for developing and implementing the solid waste management plan, formulating Interlocal Agreements, operating the transfer station, administering public education programs, and providing staff support for the SWAC.

6.1.2 Incorporated Cities

Under RCW 35.21.152 cities are allowed to develop, own, and operate solid waste handling systems and to provide for solid waste collection services within their jurisdictions. Cities and counties have the authority to establish solid waste programs, pass ordinances, and provide resources to monitor compliance and take corrective action where necessary. The cities are also responsible for enforcing local ordinances covering zoning, land use, illegal dumping, and littering. There are two incorporated cities and towns in Columbia County, and both contract with a hauler for solid waste collection.

6.1.3 Solid Waste Advisory Committee

The State requires that counties establish a Solid Waste Advisory Committee (SWAC) to assist in the development of programs and policies concerning solid waste handling and disposal (RCW 70.95). The Columbia County SWAC is an advisory board to the Columbia County Board of Commissioners and makes recommendations to the Commissioners on matters relative to the development of solid waste handling programs and policies. One of its main functions is to provide a forum within the community for the expression of opinions regarding solid waste handling and disposal plans, ordinances, resolutions, and programs prior to adoption. SWAC members represent citizens, public interest groups, business, the waste management industry, and local government. The SWAC had a significant role in developing and updating Columbia County's Comprehensive Solid Waste Management Plan.

6.1.4 Columbia County Public Health

State law gives local health departments responsibility for:

> *"ordinances governing solid waste handling implementing the comprehensive solid waste management plan covering storage, collection, transportation, treatment, utilization, processing and final disposal including but not limited to the issuance of permits and establishment of minimum levels and types of service for any aspect of solid waste handling." (RCW 70.95.160)*

In addition, RCW 70.95.160 states that:

> *"such...ordinances shall assure that solid waste storage and disposal facilities are located, maintained, and operated in a manner so as properly to protect the public health, prevent air and water pollution, are consistent with the priorities established in RCW 70.95.010 and avoid the creation of nuisances."*

Falling under the definition of "solid waste handling facilities" are landfills, wood and tire piles, construction and demolition debris sites, compost facilities, transfer stations, and landfills.

Columbia County Public Health works with the public, cities, county, and state agencies to develop and implement plans for the safe storage, collection, transportation, and final disposal of solid waste. Public Health works to assure compliance with RCW 70.95 and WAC 173-304 - Minimum Functional Standards for Solid Waste Facilities.

The Department is responsible for the following:

- Permitting all new solid waste facilities operating in Columbia County.
- Oversight of one existing permitted facilities:
  - The Columbia County Transfer Station
- Responding to complaints regarding improper storage and disposal of solid waste
- Investigating illegal dumping and non-permitted dump sites.

6.1.5 Washington Department of Ecology

The Washington Department of Ecology (Ecology) has the primary authority for solid waste at the state level. Ecology assists local governments in the planning process by reviewing, providing comments, and

approving preliminary and final drafts of solid waste management plans. This review is to ensure that local plans conform to applicable state laws and regulations. In its Guidelines for the Development of Local Solid Waste Management Plans and Plan Revisions, Ecology offers recommendations on the preparation of solid waste management plans. Ecology also makes recommendations and comments on reviews of solid waste handling and disposal permits to ensure that the proposed site or facility conforms to applicable laws and regulations.

Although primary enforcement for solid waste management is through jurisdictional health departments, Ecology has a range of enforcement authorities under various statutes to address existing or potential sources of pollution, including those which result from improper solid waste handling and management. For instance, Ecology has broad authority to take enforcement actions under the State Water Pollution Control Act, the Hazardous Waste Management Act, and the Model Toxics Control Act. Collectively, these laws allow Ecology to issue orders and impose penalties for noncompliance. Under some circumstances, Ecology may also take direct action to remedy threats to public health and the environment, and seek to recover costs from potentially liable parties.

In some instances, Ecology may assume the duties and responsibilities of jurisdictional health departments. RCW 70.95.163 authorizes local health departments to enter into an agreement with Ecology to assume some, or all, of their solid waste regulatory responsibilities and authorities, such as biosolid and septage permitting and enforcement.

The Eastern Regional Office (ER) of the Department of Ecology is responsible for controlling the emission of air contaminant from sources in Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Stevens, Walla Walla, and Whitman Counties with authority derived from federal and Washington State Clean Air Acts. Relevant laws are the Code of Federal Regulations (40 CFR) and RCW 70.94, respectively. . The 173-400 series of the Washington Administrative Code (WAC) is the principal source of regulatory implementation of Washington State air pollution laws.

6.1.6 Washington Utilities and Transportation Commission

The Washington Utilities and Transportation Commission (WUTC) regulates solid waste collection activities under RCW 81.77, through the issuance of certificates entitling private companies to provide solid waste collection services within specified geographic areas of the state. RCW 70.95.096 also grants the WUTC the authority to review solid waste management plans to assess solid waste collection cost impacts on rates charged by collection companies regulated under RCW 81.77 and to advise the County and Ecology of the probable effects of the Plan's recommendations on those rates.

The WUTC regulates the collection of solid waste in unincorporated areas of the County. The WUTC's enforcement mechanisms include fines and revocation of the right of private collectors to collect solid waste. The WUTC also enforces against companies that illegally collect solid waste without a certificate.

6.2 OPTIONS

6.2.1 Facilitate Interagency Cooperation

The different agencies and jurisdictions responsible for solid waste management in Columbia County make interagency cooperation essential. This can be achieved through commitments on the part of each entity to participate on the advisory committee(s), and coordinating committee meetings between the County and municipalities to facilitate the exchange of information. In addition, coordination can be

achieved if technical staff works closely with their counterparts in the other jurisdictions performing similar or related functions.

A cooperative approach to program evaluation is also essential to ensure that the goals and objectives of solid waste management are being met, and to monitor changes that take place in solid waste generation and disposal. Once Columbia County and the municipalities have adopted the Plan, mechanisms will need to be developed to ensure that the Plan is effectively implemented. One method for evaluating programs is to continue to utilize the SWAC to review the success of individual program components and the Plan as a whole. Methods of review could include tracking waste quantities, participation rates, expenses, income, and implementation problems. Reviews could occur periodically to make necessary adjustments once the Plan is implemented.

6.2.2 Develop a Coordinated Public Outreach and Education Program

Education is an important aspect of addressing solid waste issues. The purpose of a public outreach program is to raise public awareness. Each jurisdiction could pool their efforts for coordinated outreach.

6.3 RECOMMENDATIONS

Each of the options discussed in this section were reviewed by the SWAC members and evaluated for implementation based on a number of factors, including ability to meet the Plan goals and objectives, financial impacts, and timing of implementation. The recommendations identified below represent an approach that will provide for continued progress towards meeting local and State goals regarding solid waste management, waste reduction and diversion. The recommended policies and programs will be implemented while maintaining a balance of costs and diversion benefits to county residents. The County and City and Town will continue to monitor the results of Plan implementation to determine program results and effectiveness.

For a complete description of each option, refer to Sections 6.2.1 and 6.2.2.

6.3.1 Facilitate Interagency Cooperation
6.3.2 Develop a Coordinated Public Outreach and Education Program

7.0 Implementation

7.0 IMPLEMENTATION

The purpose of this chapter is to outline the actions and budget necessary to implement the recommendations contained in this plan.

7.1 SIX-YEAR CAPITAL AND OPERATING FINANCING

The RCW (Section 70.95.101(3)(c) requires the solid waste management plan to contain a six-year construction and capital acquisition program for public solid waste handling facilities, including development and construction or purchase of publicly financed solid waste management facilities. The legislation further requires plans to contain a means for financing both capital costs and operations expenditures of the proposed solid waste management system. Any recommendation for the development, construction, and/or purchase of public solid waste management and recycling facilities or equipment should be included in this discussion. Financing operation expenditures should also be added to this section of the Plan.

Capital and operating expenses to implement the Plan recommendations over the next 6 years are summarized in Exhibit 7-1. Actual budgets to carry out the recommendations will vary from year to year as specific programs are defined, and will depend upon availability of grant funding and budget approval by local governments.

Exhibit 7-1. Six-Year Capital and Operating Expenses

Activity	Projected Cost	Funding Mechanism (Tip Fees/Grants/Others)	Implementation Year
Operate transfer station	$52,000	Tipping fees	Ongoing 2010-2016
Transfer and disposal	$60,000		
Operate recycling drop-off program	$58,000	Grants, tipping fees	Ongoing 2010-2016
Operate MRW program	$10,500	Grants, tipping fees	Ongoing 2010-2016
Upgrade transfer station	$350,000	Grants, tipping fees	2011
Implement waste reduction and public outreach and education programs	$20,000	Grants, tipping fees	2011

7.2 IMPLEMENTATION SCHEDULE

The implementation of the recommendations contained in this Plan will begin upon approval of the Plan by the jurisdictions and Ecology. The schedule for implementation is included as Exhibit 7-2. The schedule may be revised as the Plan is updated, and as the objective and needs of the County and jurisdictions change. As indicated, for some recommendations, the programs are ongoing. For new programs, some will be implemented within a few months, and for others implementation will span many years.

Exhibit 7-2. 20-Year Projected Needs and Implementation Schedule

Program	Activity	Year	Cost/Yr	Revenue/Yr	Net Cost/Year
Transfer and Disposal					
Existing activities	Waste transfer and disposal	2011-2031	$63,000	$63,000	$0
	Transfer station operations	2011-2031	$40,000	$40,000	$0
Plan options	Upgrade transfer station equipment	2011	$350,000		One time cost
Waste Reduction, Recycling, and Organics			***$43,000***	***$43,000***	**$0**
Existing Activities	Public education and outreach	2011			
	Master composter training and certification	2011			
	Waste audits	2011			
	Drop-off bins	2011			
Plan Options	Environmentally Preferable Purchasing	2011-2031			
	Product stewardship policy	2011-2031			
	County/City Waste Reduction Policies	2011-2031			
	Reuse and SWAP Shops	2011-2031			
	online waste exchange	2011-2031			
	waste reduction requirements for new developments	2011-2031			
	measure waste reduction results	2011-2031			
	sustainable/zero waste policy	2011-2031			
	Establish new recycling center	2011-2031			
	Commingled bin program	2011-2031			
	Evaluate curbside collection in Dayton	2011-2031			
	Event recycling	2011-2031			
	Yard waste drop off sites	2011-2031			
	Curbside collection in Dayton	2011-2031			
	Curbside collection in County unincorporated areas	2011-2031			
	Food Waste Management by commercial businesses	2011-2031			
Moderate Risk Waste			***$12,650***	***$17,555***	
Existing Activities	MRW program at transfer station	2011			
	Outreach and education	2011			
Plan Options	Household outreach efforts	2011-2031			
	Business technical assistance	2011-2031			

APPENDIX A
Interlocal Agreements

INTERLOCAL AGREEMENT

This agreement is executed by and between Columbia County ("County") and the City of Dayton ("City") (hereinafter jointly referred to as "the parties") for the purpose of establishing an integrated and coordinated solid waste management program for Columbia County; fulfilling the City's and County's obligations under Chapter 70.05 RCW, and other state and federal laws and regulations governing solid waste management; and contributing to the health and safety of all Columbia County residents. The parties make and enter into this Interlocal Agreement ("Agreement") effective the 4th day of November, 2002, for the purposes and under terms contained herein.

1. Definitions

For the purposes of this Agreement and any related agreements, contracts, and documents executed, adopted, or approved pursuant to this Agreement, the parties shall use the definitions found in RCW 70.05.030; 70.138.020, and WAC 173-304-100, unless the context indicates otherwise.

2. Recital and Purpose

WHEREAS, Columbia County and each municipality within Columbia County are authorized and directed to prepare a Comprehensive Solid Waste Management Plan ("the Plan"), and are further authorized to enter into an Interlocal Agreement pursuant to Chapter 39.34 RCW for the administration and management of said Plan, and

WHEREAS, Columbia County is in the process of preparing a Comprehensive Solid Waste Management Plan which includes recycling and waste management elements for the County and the cities therein; and

WHEREAS, programs of solid waste reduction and recycling can be most effective when carried out as defined in a coordinated Plan; and

WHEREAS, the County shall accept responsibility for the final preparation of the Plan and the periodic review and revision every five years pursuant to chapter 70.95 RCW; and

WHEREAS, for the duration of this Agreement, the City shall participate in the Plan preparation, adoption, review and revisions but authorizes the County to include the in the Plan provisions for the management of solid waste generated by the City.

THEREFORE, in consideration of mutual promises and covenants herein, it is hereby agreed that the City will operate within the scope of the Comprehensive Solid Waste Plan prepared by Columbia County.

3. Authorities and Responsibilities

Authority and Responsibilities of the County: The County hereby assumes the following authorities and obligations to be exercised on behalf of the City with only such limits as are herein specifically enumerated or provided by law. The County shall:

a. Prepare and submit for approval on behalf of the City and County a comprehensive solid waste management plan as provided in RCW 780.95.080 and related provisions of law. Such plan shall include elements related to the City in regards to recycling and/or reduction of solid waste and management of the solid waste generated within the City.

b. Implement and coordinate with the City elements in the Plan related to reduction and recycling within the City.

c. Assume responsibility for and management of the reduction and recycling program for both the County and the City and shall maintain accounts and records in accordance with the requirements of the Washington State Auditor.

Authority and Responsibilities of the City: The City hereby assumes the following authorities and obligations to be exercised with only such limits as are herein specifically enumerated or provided by law. The City shall:

a. Continue to administer the municipal solid waste collection program ("collection program") within the municipality's incorporated boundaries and shall work with the County to plan and implement recycling and reduction programs outlined in the Plan.

b. Maintain accounts for collection programs in accordance with the requirements of the Washington State Auditor.

c. As a Plan participant and as required by law, review the Plan at least once every five years following the approval of the Plan by the Washington State Department of Ecology.

Mutual Responsibilities of Both the City and the County:

a. Should any revisions to the Plan become necessary due to any action anticipated or taken by any Plan participant, the instigating participant will process such amendments through the Solid Waste Advisory Committee (SWAC). Any amending action will require a majority vote by the Plan participants, with any disputes being referred to a third party mediator, one mutually agreed upon by the Plan participants, to resolve any such disputes.

b. Should any additional municipality be added to this agreement, it must be under the same terms and conditions as the original participating municipalities and the new party is required to agree to same in writing.

c. Each Plan participant shall indemnify and hold harmless the other Plan participants in regards to any liability, in connection with this agreement, for any and all injuries to persons or property arising from negligent acts or omissions of any participant's agents or employees.

d. Any municipality may exercise the option to terminate involvement in this Agreement within thirty- (30)-days following the 45-day final review period by the Department of Ecology. Should such involvement as a Plan participant be terminated, that municipality shall not be considered a Plan participant and will not be considered as having adopted the Plan and will begin immediately upon termination to begin preparing that municipality's Solid Waste Plan. Such Plan is to be prepared in accordance with all Plan regulations and guidelines for approval by the Department of Ecology.

e. This Agreement shall be effective upon its execution by the Board of Columbia County Commissioners after execution by all other Participating Municipalities.

f. This Agreement replaces and supercedes any previous agreements between the named parties regarding the subject of solid waste plans and shall remain in effect until replaced by any new Interlocal Agreement.

Dated this 4th day of November, 2002.

COLUMBIA COUNTY

By _____
Chairman, Board of Commissioners

Attest _____
Clerk of the Board

CITY OF DAYTON

By _____
Mayor

Attest _____
City Clerk

INTERLOCAL AGREEMENT

This agreement is executed by and between Columbia County ("County") and the Town of Starbuck ("Town") (hereinafter jointly referred to as "the parties") for the purpose of establishing an integrated and coordinated solid waste management program for Columbia County; fulfilling the Town's and County's obligations under Chapter 70.05 RCW, and other state and federal laws and regulations governing solid waste management; and contributing to the health and safety of all Columbia County residents. The parties make and enter into this Interlocal Agreement ("Agreement") effective the 4th day of November, 2002, for the purposes and under terms contained herein.

1. Definitions

For the purposes of this Agreement and any related agreements, contracts, and documents executed, adopted, or approved pursuant to this Agreement, the parties shall use the definitions found in RCW 70.05.030; 70.138.020, and WAC 173-304-100, unless the context indicates otherwise.

2. Recital and Purpose

WHEREAS, Columbia County and each municipality within Columbia County are authorized and directed to prepare a Comprehensive Solid Waste Management Plan ("the Plan"), and are further authorized to enter into an Interlocal Agreement pursuant to Chapter 39.34 RCW for the administration and management of said Plan, and

WHEREAS, Columbia County is in the process of preparing a Comprehensive Solid Waste Management Plan which includes recycling and waste management elements for the County and the cities therein; and

WHEREAS, programs of solid waste reduction and recycling can be most effective when carried out as defined in a coordinated Plan; and

WHEREAS, the County shall accept responsibility for the final preparation of the Plan and the periodic review and revision every five years pursuant to chapter 70.95 RCW; and

WHEREAS, for the duration of this Agreement, the Town shall participate in the Plan preparation, adoption, review and revisions but authorizes the County to include the in the Plan provisions for the management of solid waste generated by the Town.

THEREFORE, in consideration of mutual promises and covenants herein, it is hereby agreed that the Town will operate within the scope of the Comprehensive Solid Waste Plan prepared by Columbia County.

3. Authorities and Responsibilities

Authority and Responsibilities of the County: The County hereby assumes the following authorities and obligations to be exercised on behalf of the Town with only such limits as are herein specifically enumerated or provided by law. The County shall:

a. Prepare and submit for approval on behalf of the Town and County a comprehensive solid waste management plan as provided in RCW 780.95.080 and related provisions of law. Such plan shall include elements related to the Town in regards to recycling and/or reduction of solid waste and management of the solid waste generated within the Town.

b. Implement and coordinate with the Town elements in the Plan related to reduction and recycling within the Town.

c. Assume responsibility for and management of the reduction and recycling program for both the County and the Town and shall maintain accounts and records in accordance with the requirements of the Washington State Auditor.

Authority and Responsibilities of the Town: The Town hereby assumes the following authorities and obligations to be exercised with only such limits as are herein specifically enumerated or provided by law. The Town shall:

a. Continue to administer the municipal solid waste collection program ("collection program") within the municipality's incorporated boundaries and shall work with the County to plan and implement recycling and reduction programs outlined in the Plan.

b. Maintain accounts for collection programs in accordance with the requirements of the Washington State Auditor.

c. As a Plan participant and as required by law, review the Plan at least once every five years following the approval of the Plan by the Washington State Department of Ecology.

Mutual Responsibilities of Both the Town and the County:

a. Should any revisions to the Plan become necessary due to any action anticipated or taken by any Plan participant, the instigating participant will process such amendments through the Solid Waste Advisory Committee (SWAC). Any amending action will require a majority vote by the Plan participants, with any disputes being referred to a third party mediator, one mutually agreed upon by the Plan participants, to resolve any such disputes.

b. Should any additional municipality be added to this agreement, it must be under the same terms and conditions as the original participating municipalities and the new party is required to agree to same in writing.

c. Each Plan participant shall indemnify and hold harmless the other Plan participants in regards to any liability, in connection with this agreement, for any and all injuries to persons or property arising from negligent acts or omissions of any participant's agents or employees.

d. Any municipality may exercise the option to terminate involvement in this Agreement within thirty- (30)-days following the 45-day final review period by the Department of Ecology. Should such involvement as a Plan participant be terminated, that municipality shall not be considered a Plan participant and will not be considered as having adopted the Plan and will begin immediately upon termination to begin preparing that municipality's Solid Waste Plan. Such Plan is to be prepared in accordance with all Plan regulations and guidelines for approval by the Department of Ecology.

e. This Agreement shall be effective upon its execution by the Board of Columbia County Commissioners after execution by all other Participating Municipalities.

f. This Agreement replaces and supercedes any previous agreements between the named parties regarding the subject of solid waste plans and shall remain in effect until replaced by any new Interlocal Agreement.

Dated this 4th day of November, 2002.

COLUMBIA COUNTY

By Dwight Rabenske
Chairman, Board of Commissioners

Attest Dana M. Martin
Clerk of the Board

TOWN OF STARBUCK

By Diane K Linde
Mayor

Attest Candace Harrison
Town Clerk

APPENDIX B
SEPA Checklist

COLUMBIA COUNTY PLANNING DEPARTMENT

SEPA NOTICE

DETERMINATION OF NON-SIGNIFICANCE

Description of project/proposal: Adoption of 2010 Columbia county Comprehensive Solid Waste Management Plan and Moderate Risk Waste Management Plan. The proposed plan is a replacement and update of the 2002 as required by RCW 70.95. The Plan covers all of Columbia County including the cities of Dayton and Starbuck. The plan anticipates the continued operation of the transfer station in Dayton and disposal at the Walla Walla landfill.
No physical improvements or construction of new facilities is anticipated with this plan.

Project proponent: Columbia County

Location of project: County wide non-project action.

Columbia County, as lead agency for this project, 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/or other information on file with the lead agency. This information is available to the public on request.

____ There is no comment period for this DNS

__x__ This DNS is issued under WAC 197-11-340(2): the lead agency will not act on the proposal for 21 days from the publication date below.

Comments must be submitted in writing by __January 26, 2011_.

Responsible official: Richard Hendricksen, AICP Title: Planning Director

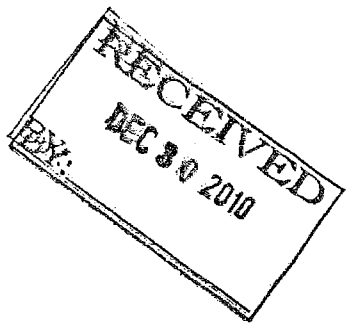
Phone: 509-382-4676 Fax: 509-382-3125
PUBLICATION DATE: 1-5-11

SIGNATURE: _____

SEIA 2010-604

Columbia County Planning Department SEPA Checklist

Environmental Checklist SEPA Review Fee



Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for Applicant:

This environmental checklist asks you to describe some basic information about your proposal. Government agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer each question from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if the question does not apply to your proposal, write "do not know" or "does not apply". Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

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

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply". IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). For nonproject actions, the references in the checklist to the words "project", "applicant", and "property or site" should be read as "proposal", "proposer", and affected geographic area", respectively.

A. **Background**

1. Name of proposed project, if applicable:

2010 Columbia County Comprehensive Solid Waste Management Plan Update and Moderate Risk Waste Management Plan

2. Name of applicant:

Columbia County Planning Department SEPA Checklist

Columbia County Public Works

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

Columbia County Public Works
P.O. Box 5
Dayton, WA 99328
(509) 382-2534

4. Date checklist prepared:

December 16, 2010

5. Agency requesting checklist:

Columbia County Public Works

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

2011-2031

7. Do you have any plans for future additions, expansions, or further activity related to or connected with this proposal:
if yes, explain:

Plan will be updated in five years.

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

Environmental review will occur on a per-project basis.

9. Do you know whether applications are pending for governmental approval of other proposals directly affecting the property covered by your proposal?
If yes, explain:

None

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

Department of Ecology and Washington Utilities and Transportation Commission

11. Give brief, compete description of your proposal, including the proposed use 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 this project Description.)

The 2010 Columbia County Comprehensive Solid Waste Management Plan and Moderate Risk Waste Management Plan (2010 Combined Plan) provides background and guidance for a long-term approach to solid waste and moderate risk waste management in the County. The 2010 Combined Plan is intended to provide citizens and decision makers in Columbia County with a guide to implement, monitor, and evaluate future solid waste and moderate risk waste activities in the planning area for a 20-year period. The recommendations for the 2010 Plan guide local decision makers, and identify the need for fiscal responsibility and for local, State and Federal funds and grants in order to implement and operate the respective programs.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area provide the range of 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 application related to this checklist.

The Plan encompasses all of Columbia County, Washington, including the unincorporated areas and the City of Dayton and Town of Starbuck.

To Be Completed By Applicant

B. **Environmental Elements**

1.**Earth**

a. General description of site (circle one). Flat, rolling, hilly, steep slope, Mountainous, Other: *Columbia County has elevations ranging from 504 feet to 6,401 feet. The County is made up of three different regions: a canyon with steep slopes, a plateau with flat tablelands and rolling plains, and a mountainous region that is rocky and rugged.*

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

Slopes of the Snake River Canyon gorge.

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 soil, specify them and note any prime farmland.

Columbia County has three types of soil classifications:

- *The Palouse Soils – Located in the rolling hills and plains, these soils are fine, wind-deposited soils made up of Pleistocene deposits*
- *The River Valley Soils – Soil, generally sand and gravelly loam that has been transported through the mountains.*

- *Shallow Silts – Soil that covers steeply sloped hills and steeper terrain*

d. Are there surface indications of 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.

Not applicable

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

Not applicable.

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

Not applicable

2. **Air**

a. What types of emissions to the air would result from the proposal (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 of other impacts to air, if any:

Not applicable

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.

The major bodies of water in Columbia County include: the Tucannon River, the Touchet River, the Snake River, Kellogg Creek, Willow Creek, Pataha Creek, and Cummings Creek.

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 materials.

Not applicable

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

No

5. Does the proposal lie within the 100-year flood plain? If so, note location on the site plan.

Not applicable

6. Does the proposal involve any discharge 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.

No

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

Not applicable

c. **Water runoff** (including storm water):

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.

Not applicable

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

Not applicable

4. **Plants**

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

_X_ Deciduous tree: alder, maple, aspen, other
_X__ Evergreen tree: fir, cedar, pine, other
_X_ Shrubs
_X_ Grass
_X_ Crop or grain
___ Wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other
___ Water plants: water lily, eelgrass, milfoil, other
_X__ Other types of vegetation

Columbia County includes a variety of vegetation types. Natural vegetation in the northern part of the county includes rabbitbrush and native grasses such as bluebunch wheatgrass, willow, cottonwoods, aspens, and alder along river and stream valleys. Blackberries and roses are found along the middle and upper Tucannon. Much of the high southern part of the County is covered with a conifer forest, including Ponderosa pine, white fir, and Douglas fir.

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

Not applicable

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

Not applicable

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

5. Animals

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

Animals in the County include deer, elk, muskrats, mink, beavers, badgers, rabbits, raccoons, squirrels, chipmunks, skunks, weasels, coyotes, bobcats, cougars, pheasants, quail, partridges, grouse, doves, migratory waterfowl, raptors, and other assorted song and shore birds.

Birds: hawk, heron, eagle, songbirds
Other: _____
Mammals: deer, bear, elk, beaver
Other: _____
Fish: bass, salmon, trout, herring, shellfish
Other: _____

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

Not applicable

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

Unknown

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

Not applicable

6. **Energy and Natural Resources**

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

Not applicable

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

Not applicable

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

Not applicable

7. **Environmental Health**

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

Columbia County operates a Municipal Solid Waste Transfer Station, which is also used for the collection of moderate risk waste. County personnel operate the facility. The facility incorporates required waste containment measures. Materials at the transfer station facility are stored temporarily on-site in enclosed containers; exposure to the general public is limited.

1. Describe special emergency services that might be required.

Columbia County Fire Department personnel would respond to emergencies at the transfer station.

2. Proposed measure to reduce or control environmental health hazards, if any:

The facility incorporates required waste containment measures. Materials at the transfer station are stored temporarily on-site in enclosed containers.

b. **Noise**

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

Not applicable

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

Not applicable

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

Not applicable

8. **Land and Shorelines Use**

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

Not applicable

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

Not applicable

c. Describe any structures on the site:

Not applicable

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

Not applicable

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

Not applicable

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

Not applicable

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

Not applicable

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

Not applicable

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

Not applicable

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

Not applicable

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

Not applicable

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

Not applicable

9. **Housing**

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

Not applicable

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

Not applicable

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

Not applicable

10. **Aesthetics**

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

Not applicable

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

Not applicable

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

Not applicable

11. **Light and Glare**

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

Not applicable

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

Not applicable

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

Not applicable

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

Not applicable

12. **Recreation**

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

Not applicable

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

Not applicable

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

Not applicable

13. **Historic and Cultural Preservation**

a. Are there any 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.

Not applicable

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

Not applicable

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

Not applicable

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?

Not applicable

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

Not applicable

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

Not applicable

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

Not applicable

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

Not applicable

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

Not applicable

15. **Public Services**

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

Not applicable

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

Not applicable

16. **Utilities**

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

Current utilities are power, water, refuse service, telephone, and sanitary sewer.

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 that might be needed.

Existing utilities will be utilized. No new utilities are anticipated.

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: Drew Woods

Date submitted: 12-30-10

Columbia County Planning
& Building Department
114 S. 2nd Street
Dayton, WA 99328-1341

Date received at Columbia County Planning Department: 12-30-10

Received by:

To Be Completed By Applicant

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?

Columbia County operates a Municipal Solid Waste Transfer Station, which is also used for the collection of moderate risk waste. County personnel operate the facility.

Proposed measures to avoid or reduce such increases are:

The facility incorporates required waste containment measures. Materials at the transfer station facility are stored temporarily on-site in enclosed containers; exposure to the general public is limited.

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

It is not anticipated that this project will affect any of the above listed items.

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

N/A

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

It is not anticipated that this project will deplete energy or natural resources.

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

Any future new buildings would be energy efficient that meets or exceeds current code.

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 farmland?

It is not anticipated that this project will be likely to use or affect any of the above listed items.

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

Not applicable.

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

It is not anticipated that this project will be likely to affect land or shoreline use.

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

Not applicable.

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

It is not anticipated that this project will increase demands on transportation, public services, or utilities.

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

None.

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

The Columbia County Solid Waste Management Plan has been prepared in compliance with local and state laws and regulations governing solid waste management. The following state codes were incorporated into the Plan update: RCW 35.21.120-158, RCW 36.58, RCW 36.58A, RCW 39.34, RCW 43.19A, RCW 43.70.190, RCW 46.55, RCW 70.05.060, RCW 70.93, RCW 70.95, RCW 70.95A, RCW 70.95C, RCW 70.95F, RCW 70.95I, RCW 70.95K, RCW 70.105, RCW 70.105D, RCW 81.77, RCW 82.19, RCW 82.21, ESSB 6203, WAC 173.300, WAC 173.303, WAC 173.304, WAC 173.308, WAC 173.350, WAC 173.312, WAC 173.351, WAC 480.70.

APPENDIX C
WUTC Cost Assessment

COST ASSESSMENT QUESTIONNAIRE

Please provide the information requested below:

PLAN PREPARED FOR THE COUNTY OF: COLUMBIA

PLAN PREPARED FOR THE CITY OF: N/A

PREPARED BY: HDR Engineering, Inc.; Michelle Leonard, Project Manager

CONTACT TELEPHONE: (213) 239- 5839 DATE: 10/01/2010

DEFINITIONS

Please provide these definitions as used in the Solid Waste Management Plan and the Cost Assessment Questionnaire.

Throughout this document:

YR.1 shall refer to **2009.**
YR.3 shall refer to **2012.**
YR.6 shall refer to **2015.**

Year refers to (circle one) **calendar** (Jan 01 - Dec 31)

1. **DEMOGRAPHICS:** To assess the generation, recycling and disposal rates of an area, it is necessary to have population data. This information is available from many sources (e.g., the State Data Book, County Business Patterns, or the State Office of Finance and Management).

1.1 Population

1.1.1 What is the **total** population of your County/City?

YR.1 **4,100** YR.3 **4,106** YR.6 **4,096**

1.1.2 For counties, what is the population of the area **under your jurisdiction?** (Exclude cities choosing to develop their own solid waste management system.)

YR.1 **1,235** YR.3 **1,236** YR.6 **1,233**

1.2 References and Assumptions

Population projections using OFM Medium Growth Management Series

2. **WASTE STREAM GENERATION:** The following questions ask for total tons recycled and total tons disposed. Total tons disposed are those tons disposed of at a landfill, incinerator, transfer station or any other form of disposal you may be using. If other, please identify.

2.1 Tonnage Recycled

2.1.1 Please provide the total tonnage **recycled** in the base year, and projections for years three and six.

YR.1 **628** YR.3 **945** YR.6 **943**

2.2 Tonnage Disposed

2.2.1 Please provide the total tonnage **disposed** in the base year, and projections for years three and six.

YR.1 **2,417** YR.3 **2,104** YR.6 **2,099**

2.3 References and Assumptions

Disposal and diversion data from Ecology and County records. Diversion estimates assumes County will increase diversion an additional 10% by 2012, as outlined in Chapter 1, Plan Goals and objectives section 1.1.

3. **SYSTEM COMPONENT COSTS:** This section asks questions specifically related to the types of programs currently in use and those recommended to be started. For each

component (i.e., waste reduction, landfill, composting, etc.) please describe the anticipated costs of the program(s), the assumptions used in estimating the costs and the funding mechanisms to be used to pay for it. The heart of deriving a rate impact is to know what programs will be passed through to the collection rates, as opposed to being paid for through grants, bonds, taxes and the like.

3.1 Waste Reduction Programs

3.1.1 Please list the solid waste programs which have been implemented and those programs which are proposed. If these programs are defined in the SWM plan please provide the page number. (Attach additional sheets as necessary.)

IMPLEMENTED	PROPOSED
Public Education and outreach	Public Education and outreach
Master composter training	Master composter training
Waste audits	Waste audits

3.1.2 What are the costs, capital costs and operating costs for waste reduction programs implemented and proposed?

IMPLEMENTED

YR.1 $5,000 YR.3 $5,000 YR.6 $5,000

PROPOSED

YR.1 $5,000 YR.3 $5,000 YR.6 $5,000

3.1.3 Please describe the funding mechanism(s) that will pay the cost of the programs in 3.1.2.

IMPLEMENTED

YR.1 Grant YR.3 Grant YR.6 Grant

PROPOSED

YR.1 Grant YR.3 Grant YR.6 Grant

3.2 Recycling Programs

3.2.1 Please list the proposed or implemented recycling program(s) and, their costs, and proposed funding mechanism or provide the page number in the draft plan on which it is discussed (attach additional sheets as necessary).

IMPLEMENTED

PROGRAM	COST	FUNDING
Recycling bins	$ 58,000	Grants; revenue from recyclables

PROPOSED

PROGRAM	COST	FUNDING
Recycling Bins	$ 58,000	Grants; revenue from recyclables

3.3 Solid Waste Collection Programs

3.3.1 Regulated Solid Waste Collection Programs

Fill in the table below for each **WUTC regulated** solid waste collection entity in your jurisdiction. (Make additional copies of this section as necessary to record all such entities in your jurisdiction.)

WUTC Regulated Hauler Name: Empire Disposal, Inc.
G-Permit # 75

RESIDENTIAL	2009
- # of Customers	8
- Tonnage Collected	23
COMMERCIAL	
- # of Customers	6
- Tonnage Collected	17

WUTC Regulated Hauler Name: Basin Disposal, Inc.
G-permit #118

RESIDENTIAL	2009
- # of Customers	291
- Tonnage Collected	301
COMMERCIAL	
- # of Customers	69
- Tonnage Collected	102

3.3.2 Other (non-regulated) Solid Waste Collection Programs Fill in the table below for other solid waste collection entities in your jurisdiction. (Make additional copies of this section as necessary to record all such entities in your jurisdiction.)

Hauler Name: BDI (City of Dayton)

	YR. 1	YR. 3	YR. 6
# of Customers	1,152	1,153	1,154
Tonnage Collected	1,687	1,688	1,690

Hauler Name: Empire Disposal (Town of Starbuck)

	YR. 1	YR. 3	YR. 6
# of Customers	67	67	67
Tonnage Collected	190	190	190

3.4 Energy Recovery & Incineration (ER&I) Programs
(If you have more than one facility of this type, please copy this section to report them.)

3.4.1 Complete the following for each facility:

Name: N/A
Location: _____
Owner: _____
Operator: _____

3.4.2 What is the permitted capacity (tons/day) for the facility? **N/A**

3.4.3 If the facility is not operating at capacity, what is the average daily throughput?

YR.1 **N/A** YR.3 **N/A** YR.6 **N/A**

3.4.4 What quantity is estimated to be land filled which is either ash or cannot be processed.

YR.1 **N/A** YR.3 **N/A** YR.6 **N/A**

3.4.5 What are the expected capital costs and operating costs, for ER&I programs (not including ash disposal expense)?

YR.1 **N/A** YR.3 **N/A** YR.6 **N/A**

3.4.6 What are the expected costs of ash disposal?

YR.1 **N/A** YR.3 **N/A** YR.6 **N/A**

3.4.7 Is ash disposal to be: **N/A**
_____ on-site?
_____ in county?
_____ long-haul?

3.4.8 Please describe the funding mechanism(s) that will fund the costs of this component.
N/A

3.5 Land Disposal Program

(If you have more than one facility of this type, please copy this section to report them.)

3.5.1 Provide the following information for each **land disposal facility** in your jurisdiction which receives garbage or refuse generated in the county.

Landfill Name: **NONE**
Owner:
Operator:

3.5.2 Estimate the **approximate tonnage** disposed at the landfill by **WUTC regulated haulers.** If you do not have a scale and are unable to estimate tonnages, estimate using cubic yards, and indicate whether they are compacted or loose.[1]

YR.1 **N/A** YR.3 **N/A** YR.6 **N/A**

3.5.3 Using the same conversion factors applied in 3.5.2, please estimate the **approximate tonnage** disposed at the landfill by other contributors.

YR.1 **N/A** YR.3 **N/A** YR.6 **N/A**

3.5.4 Provide the cost of operating (including capital acquisitions) each landfill in your jurisdiction. For any facility that is privately owned and operated, skip these questions.

YR.1 **N/A** YR.3 **N/A** YR.6 **N/A**

3.5.5 Please describe the funding mechanism(s) that will defray the cost of this component.
N/A

3.6 Administration Program

3.6.1 What is the budgeted cost for administering the solid waste and recycling programs and what are the major funding sources.

Budgeted Cost

YR.1 $22,217 YR.3 $22,217 YR.6 $22,217

[1] Compacted cubic yards will be converted at a standard 600 pounds per yard. Loose cubic yards will be converted at a standard 300 pounds per cubic yard. Please specify an alternative conversion ratio if one is presently in use in your jurisdiction.

Funding Source

YR.1 Grants/Tip Fees YR.3 Same YR.6 Same

3.6.2 Which cost components are included in these estimates?

Expenses included in the estimate are as follows: salaries and wages, personnel benefits, supplies, permits other services and charges, and capital expenditures.

3.6.3 Please describe the funding mechanism(s) that will recover the cost of each component.

Funding mechanisms include grants, disposal charges (tip fees at Transfer Station), some recycling revenues, refuse collection tax, and miscellaneous.

3.7 Other Programs

For each program in effect or planned which does not readily fall into one of the previously described categories please answer the following questions. (Make additional copies of this section as necessary.)

3.7.1 Describe the program, or provide a page number reference to the plan.

Transfer Station

3.7.2 Owner/Operator Columbia county

3.7.3 Is WUTC Regulation Involved? If so, please explain the extent of involvement in section 3.8.

3.7.4 Please estimate the anticipated costs for this program, including capital and operating expenses.

YR.1 $60,000 YR.3 $60,000 YR.6 $60,000

3.7.5 Please describe the funding mechanism(s) that will recover the cost of this component.

Tip fees; County funds; City of Dayton fee

3.7 **References and Assumptions** (attach additional sheets as necessary)

4. **FUNDING MECHANISMS:** This section relates specifically to the funding mechanisms currently in use and the ones, which will be implemented to incorporate the recommended programs in the draft plan. Because the way a program is funded directly relates to the costs a resident or commercial customer will have to pay, this section is crucial to the cost assessment process. Please fill in each of the following tables as completely as possible.

Table 4.1.1 Facility Inventory

Facility Name	Type of Facility	Tip Fee per Ton	Transfer Cost**	Transfer Station Location	Final Disposal Location	Total Tons Disposed	Total Revenue Generated (Tip Fee x Tons)
Columbia County Transfer Station	Transfer Station	$94	$21,689	Dayton	Sudbury Landfill	584	$54,896

Table 4.1.2 Tip Fee Components

Tip Fee by Facility	Surcharge	City Tax	County Tax	Transportation Cost	Operational Cost	Administration Cost	Closure Costs
Columbia County Transfer Station	0	0	0	34%	63%	3%	0

Table 4.1.3 Funding Mechanism

Name of Program Funding Mechanism will defray costs	Bond Name	Total Bond Debt	Bond Rate	Bond Due Date	Grant Name	Grant Amount	Tip Fee	Taxes	Other	Surcharge
Waste reduction and recycling					CPG	$53,000			Recycling revenue	
MRW					CPG	$5,000				

Table 4.1.4 Tip Fee Forecast

Tip Fee per Ton by Facility	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Columbia County Transfer Station	$94	$52	$54	$55	$57	$59

4.2 **Funding Mechanisms** summary by percentage: In the following tables, please summarize the way programs will be funded in the key years. For each component, provide the expected percentage of the total cost met by each funding mechanism (e.g., Waste Reduction may rely on tip fees, grants, and collection rates for funding). You would provide the estimated responsibility in the table as follows: Tip fees = 10%; Grants = 50%; Collection Rates = 40%. The mechanisms must total 100%. If components can be classified as "other," please note the programs and their appropriate mechanisms. Provide attachments as necessary.

Table 4.2.1 Funding Mechanism by Percentage

Year One

Component	Tip Fee %	Grant %	Bond %	Collection Tax Rates %	Other %	Total
Waste Reduction	10	75			15	100%
Recycling	10	75			15	100%
Collection	0					100%
ER&I	0					100%
Transfer	90				10	100%
Land Disposal	90				10	100%
Administration	0					100%
Other	0					100%

Table 4.2.2 Funding Mechanism by Percentage

Year Three

Component	Tip Fee %	Grant %	Bond %	Collection Tax Rates %	Other %	Total
Waste Reduction	10	75			15	100%
Recycling	10	75			15	100%
Collection	0					100%
ER&I	0					100%
Transfer	90				10	100%
Land Disposal	90				10	100%
Administration	0					100%
Other	0					100%

Table 4.2.3 Funding Mechanism by Percentage Year Six						
Component	Tip Fee %	Grant %	Bond %	Collection Tax Rates %	Other %	Total
Waste Reduction	10	75			15	100%
Recycling	10	75			15	100%
Collection	0					100%
ER&I	0					100%
Transfer	90				10	100%
Land Disposal	90				10	100%
Administration	0					100%
Other	0					100%

4.3 References and Assumptions

Please provide any support for the information you have provided. An annual budget or similar document would be helpful.

4.4 Surplus Funds

Please provide information about any surplus or saved funds that may support your operations.