

Executive Summary

EXECUTIVE SUMMARY

The 2024 Lincoln County Comprehensive Solid Waste Management Plan Update (2024 Plan) provides background and guidance for a long-term approach to solid waste management in the County. The 2024 Plan updates the 2010 Lincoln County Solid Waste Plan Amendment and has been prepared in accordance with The Solid Waste Management - Reduction and Recycling Act, Chapter 70A.205 of the Revised Code of Washington (Ch. 70A.205 RCW).

The 2024 Plan has been developed with Lincoln County as the lead agency, along with participation and cooperation as defined in an inter-local agreement between the County and the cities of Almira, Creston, Davenport, Harrington, Odessa, Reardan, Sprague, and Wilbur. It is intended to provide citizens and decision makers in Lincoln County with a guide to implement, monitor, and evaluate future solid waste activities in the planning area for a 20-year period. The recommendations for the 2024 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 solid waste programs.

The 2024 Plan was prepared under the direction and guidance of the Lincoln County Public Works Department in conjunction with the Solid Waste Advisory Committee (SWAC). The 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 2024 Plan for adoption by the County and municipalities. After the 2024 Plan is adopted, the SWAC will routinely evaluate implementation of recommended programs, and will help to promote waste reduction and recycling throughout the region.

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, 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 following lists the recommendations included in the Plan.

SECTION 3 WASTE REDUCTION, REUSE, RECYCLING, AND ORGANICS

- **Public Education and Outreach**
- **Waste Reduction, and Reuse**
- **Recycling**
- **Organics**

SECTION 4 COLLECTION

SECTION 5 TRANSFER AND DISPOSAL

SECTION 6 MISCELLANEOUS WASTE

SECTION 7 MODERATE RISK WASTE

SECTION 8 ENFORCEMENT AND ADMINISTRATION

IMPLEMENTATION

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-1. 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-1. Twenty Year Projected Needs

Program Activity	Year	Cost/YR	Funding
Operate Transfer Station	2024-2044	\$460,000.00	T, PR
Waste Reduction and Recycling			
General Operations			
1. Waste Reduction and Recycling	2024-2044	\$110,000	G, PR, LM
2.MRW	2024-2044	\$18,000	G, PR, LM
3.Organics Collection	2024-2044	\$18,000	G, PR, LM
4.Education and Outreach	2024-2044	\$2,000	G, PR, LM
Upgrade Heating system in the Recycling Center	2024	\$18,000	G, PR, LM
Additional Storage facility	2024	\$225,000	G, PR, LM

Capital and operating expenses to implement the Plan recommendations over the next 6 years are summarized in Exhibit ES-2. 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.

EX ES-2 SIX YEAR PLAN

OPERATING/CAPITAL IMPROVEMENTS	PROJECTED COST	FUNDING MECHANISM (tip fees/grants/others)	IMPLEMENTAION YEAR
Operate Transfer Station	\$460,000	Tipping/Program Fees	ongoing- 2024-2030
Waste Reduction & Recycling	\$110,000	Grants/Program & Recycling Fees/Local Match	ongoing-2024-2030
Operate MRW Program	\$16,000	Grants/Program & Recycling Fees/Local Match	ongoing-2024-2030
Operate Organics Program	\$18,000	Grants/Program & Recycling Fees/Local Match	ongoing-2024-2030
Public Education and Outreach	\$2,000	Grants/Program Fees/Local Match	Ongoing-2024-2030
Replace heating system in Recycling center	\$18,000	Grants/Program Fees/Local Match	2024
Additional storage facility	\$200,000	Grants/Program Fees/Local Match	2024
Upgrade Organics Collection	\$50,000	Grants/Program Fees/Local Match	2026
Replace existing scale and add second scale and attendant's booth	\$350,000	Grants/Program Fees/Local Match	2029
Solid Waste Management Plan Update	\$80,000	Grants/Program Fees/Local match	2029
Estimates in year 2022 Dollars			
Projected Costs listed should be increased a minimum of 3% per year in consideration for inflation and annual cost increases			

Section 1

Introduction

1 INTRODUCTION

This document identifies and discusses elements of the revised comprehensive solid waste management plan for the incorporated and unincorporated areas of Lincoln County. The plan elements conform to requirements of the State Solid Waste Management – “Reduction and Recycling Act,” (RCW 70A.205), 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 Solid Waste Management Plans and Plan Revisions* (WDOE 90-11, December 1999).

The format of this Plan follows the recommendations outlined in the Department of Ecology (Ecology) Guidelines for the Development of Local Solid Waste Management Plans and Plan Revisions (December 1999). The Plan is organized as follows:

- Chapter 1 Introduction and Background of the Planning Area
- Chapter 2 Waste Generation
- Chapter 3 Waste Reduction, Recycling, Reuse and Organics
- Chapter 4 Collection Systems
- Chapter 5 Transfer and Disposal
- Chapter 6 Special Wastes and Moderate Risk Wastes
- Chapter 7 Administration and Enforcement
- Chapter 8 Implementation

Formal adoption and approval of this plan is scheduled for fall 2024. Annual informal reviews may take place under SWAC guidance with minor amendments (if any) following the prescribed process. A formal five-year review, as required by law, should be scheduled to begin in 2029.

1.1 PLAN GOALS AND OBJECTIVES

The intent of this plan is to establish the foundation for the proper management of solid waste in Lincoln County. This plan update incorporates the following goals:

1. Manage the solid waste system to promote and maintain a high level of public health and safety which protects the human and natural environment of Lincoln County.
2. Manage solid wastes in a manner that promotes, in order of priority: waste reduction, reuse, recycling, and disposal.
3. Manage the waste management system in an efficient, cost-effective way to ensure the future financial viability of the systems serving the County.
4. Ensure access to collection services for residences, businesses, and industry.
5. Encourage coordination and communication among all jurisdictions and governmental entities to carry out components of this solid waste plan.

6. Increase public awareness of solid waste issues by continuing and expanding educational opportunities within the county.
7. Encourage development of sustainable waste management technologies.

1.2 JURISDICTIONAL ROLES IN PLANNING

1.2.1 Role of Local Governments

Lincoln County and its designated Department, Public Works, was the lead agency responsible for developing the revised Solid Waste Management Plan. That office, in collaboration with the Solid Waste Advisory Committee (SWAC), coordinated with participating local governments and agencies, conducted public participation and educational programs, and prepared funding request to support solid waste planning and management activities.

RCW 70A.205.080 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 eight incorporated municipalities in Lincoln County: Reardan, Davenport, Harrington, Sprague, Odessa, Creston, Wilbur, and Almira. Resolutions of concurrence from the municipalities stating their intended participation and/or adoption of the plan are included in the appendices.

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 70A.205 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 of 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 posted on the Lincoln County Website.

1.3 SOLID WASTE PLANNING HISTORY IN LINCOLN COUNTY

Lincoln County's first Solid Waste Plan was adopted in 1974 and revised in 1984, 1993 and 2010. A plan update was prepared in 2024.

1.3.1 1974/1984 Solid Waste Management Plans

Lincoln County's first Solid Waste Management Plan was adopted in 1974 and then revised in 1984. These early planning efforts concentrated on opening and operating small landfills; closing dump sites; meeting minimum federal and state regulatory requirements; and providing safe, flexible, and convenient solid waste options for residents of the small towns and rural areas.

1.3.2 1993 Solid Waste Management Plan

The 1993 update identified a number of priorities for the planning period. The priorities placed an emphasis on waste reduction and recycling, facilities, and public – private partnerships. The Plan established phased goals for meeting the state's 50% recycling goal: a 35% reduction in 15 years (2008) and 50% reduction in 20 years (2013). Public education activities were identified as integral to meeting these goals, and the Plan identified the need for additional staff resources to implement the Plan. The importance of the private sector involvement in the solid waste system was recognized, and the preference for a public-private partnership, where the public sector establishes basic policy parameters and the private sector, where feasible, is contracted to provide services. The Plan called for the development of a transfer facility (or facilities) by 1994 to accommodate waste export, as well as processing of recyclables, and potentially a composting operation.

1.3.3 1999 Solid Waste Management Plan Amendment

The 1999 Plan Amendment reflected minor changes in the County solid waste system. The amendment identified the following issues:

- Slow growth in population and waste generation.
- Reliance on private sector for collection.
- Need for increased recycling to reduce disposal costs.
- Underutilization of Transfer Station and impact/need to raise tipping fees.

The Plan identified a number of recommendations for implementation.

1.3.4 2010 Solid Waste Management Plan

In 2008 the county started working with a consultant to have a new Solid Waste Management Plan adopted. The intent of the plan was to establish the foundation for the proper management of solid waste in Lincoln County.

1. Manage the solid waste system to promote and maintain a high level of public health and safety which protects the human and natural environment of Lincoln County.

2. Manage solid wastes in a manner that promotes, in order of priority: waste reduction, recycling, and disposal.
3. Manage the waste management system in an efficient, cost-effective way to ensure the future financial viability of the systems serving the County.
4. Ensure access to collection services for residences, businesses, and industry.
5. Encourage coordination and communication among all jurisdictions and governmental entities to carry out components of this solid waste plan.
6. Increase public awareness of solid waste issues by continuing and expanding educational opportunities within the county.
7. Encourage development of sustainable waste management technologies, including evaluating the feasibility of energy production.

1.3.5 2024 Solid Waste Management Plan

In 2021 the county started working to have a new Solid Waste Management Plan adopted. The intent of the plan was to continue with the current foundation for the proper management of solid waste in Lincoln County.

1. Manage the solid waste system to promote and maintain a high level of public health and safety which protects the human and natural environment of Lincoln County.
2. Manage solid wastes in a manner that promotes, in order of priority: waste reduction, Reuse, recycling and disposal.
3. Manage the waste management system in an efficient, cost-effective way to ensure the future financial viability of the systems serving the County.
4. Ensure access to collection services for residences, businesses, and industry.
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1.4 RELATIONSHIP TO OTHER PLANS

1.4.1 Comprehensive Plan

The planning guidelines require that the solid waste management plan reference all comprehensive land use plans for all participating jurisdictions to ensure that the solid waste management plan is consistent with policies set forth in the other documents.

Lincoln County's Comprehensive Plan is the official statement adopted by the Lincoln County Board of Commissioners (Board) setting forth goals and policies to protect the health, welfare, safety, and quality of life of Lincoln County's residents. The County is currently updating the Comprehensive Plan and anticipates adoption in the fall of 2024.

1.4.2 Lincoln County Moderate Risk Waste Management Plan

A Moderate Risk Waste Plan was prepared and adopted by Lincoln, Adams, and Grant Counties in 1993. The Lincoln County 2010 Solid Waste Management incorporated a new Moderate Risk Waste Plan specifically for Lincoln County. Refer to Section 6 of this Plan.

Shoreline Management Plans

Shoreline Management Plans establish policies and regulations for development along shorelines. Shorelines are defined as all waters of the state, including reservoirs, floodplains, and their associated wetlands. Portions of rivers having a mean annual flow of less than 20 cubic feet per second, and lakes less than 20 acres in size, are excluded from the regulations. There are several hydrological features in the County that meet the definitions for protection under the Washington Shoreline Management Act of 1972.

1.5 REGULATORY RELATIONSHIPS

In preparing and implementing solid waste management plans, it is important to identify the effect of other regulatory requirements on solid waste issues. An individual-medium approach can result in the transfer of pollutants to other media, rather than actual removal of pollutants from the environment or reduction in toxicity. For example, stringent limits in wastewater discharges have resulted in the generation of increased quantities of wastewater residuals, which sometimes contain the very pollutants originally intended to be controlled. Similarly, remediation of groundwater contaminated with volatile and semi-volatile organics can lead to increased emissions of volatile organic compounds into the air depending on the treatment technology employed. In the case of solid waste practices in Washington, in the past, uncontrolled burning of garbage was a common practice both on an individual basis and at unlined dumps. This caused cross contamination of air, water, and soils.

Since the early 1970's the federal clean air and clean water acts have been implemented that called for reduction of pollution of the air and water. After more than three decades, great progress has been made in compliance with these Acts, and the effort continues. One of the results of regulatory compliance has been a shift in burden of air and water pollution management to solid waste management. Control of water pollution has essentially eliminated the dumping of effluent into waterways, and replaced this with solid waste handling methods, such as land application or composting of bio solids. Similarly, electronic precipitators and bag houses have removed industrial air pollutants from process air streams, and created a solid waste in the form of ash that requires disposal. Another major regulatory effort is control of toxic and hazardous contaminants and pollutants. Collection and accumulation of materials containing these pollutants has also increased the needed for solid waste disposal for these waste streams.

The State policies and programs that affect or are affected by solid waste planning issues are discussed in more detail below.

1.5.1 Air Quality Policies and Programs

The Washington State Legislature passed the land clearing burning law in 1991 as part of Washington's Clean Air Act and voted to phase in the ban on residential burning. Residential burning is a fire meant to dispose of household yard waste, such as leaves, grass, brush, and other yard trimmings. The ban was originally set to take effect in 2001. This was to give local governments and communities time to develop alternatives to burning, such as composting, chipping, curbside pickup of yard waste, local yard waste disposal stations, and seasonal cleanup days. In 1998, the Legislature delayed the ban for smaller communities until January 1, 2007, to give them more time to make these preparations. For communities with populations of 5,000 or more, outdoor burning has been banned since 2001. Starting January 1, 2007, residential and land clearing burning was banned in all urban growth areas (UGAs) in the State of Washington. Right now, the law bans outdoor burning within the Urban Growth Areas for cities with more than 5,000 people. The ban does not apply to agricultural burning or limit recreational (campfires) burning. The new law will also prohibit land-clearing burning in areas with population densities of greater than 1,000 people per square mile. Lincoln County is not fully

planning under the WA State Growth Management Act, therefore is not subject to the new burning rules that impact urban growth areas associated with incorporated communities.

Among alternatives to burning, vegetative material there is a hierarchy of preferences. Landfill disposal is considered a better choice than burning but several other reuse and recycling options are preferred. The needed and preferred alternatives will simultaneously satisfy reductions in burning and solid waste. Among these are composting, mulching, and primary reduction in the form of reducing production of vegetative waste.

1.5.2 Water Quality Policies and Programs

The Department of Ecology, Water Quality Program, is delegated by the U.S. EPA as the state water pollution control agency, responsible for implementing all federal and state water pollution control laws and regulations. Wastewater and storm water discharges are regulated primarily by wastewater discharge permits, which stipulate specific limits and conditions of allowable discharge.

A wastewater discharge permit is required for disposal of waste material into “waters of the state,” which include rivers, lakes, streams, and all underground waters and aquifers. A wastewater discharge permit is also required for certain industrial users that discharge industrial waste into sanitary sewer systems.

One alternative for the disposal of wastewater treatment solids is the use of land application of bio solids. This method is used successfully throughout the state and eliminates the disposal of bio solids in landfills. Another method which involves the co-composting of bio solids with green waste is also gaining attention as an alternative to landfill disposal.

1.5.3 Hazardous Waste Policies and Programs

In 1985, the Washington State Legislature amended the Hazardous Waste Management Act to require all cities and counties in the state to develop plans for improving moderate risk waste management in their jurisdictions. Moderate risk waste, as defined by the Act, includes:

- Any household wastes identified by Ecology as hazardous household substances.
- Any hazardous waste conditionally exempt from regulation because the waste is generated or accumulated in quantities below the threshold for state or federal regulation (typically 220 pounds per month or per batch or accumulate less than 2,200 pounds on site).

Management of the moderate risk waste stream is closely associated with the management of other solid wastes. Proper management of moderate risk waste is important, since such wastes pose a threat to public health, worker safety, and the environment. Moderate risk waste management plans, therefore, support solid waste management plans by discouraging indiscriminate dumping, and diverting hazardous waste from solid waste handling and disposal facilities and wastewater treatment facilities. In 1993, Lincoln, Adams, and Grant counties completed a moderate risk waste management plan as required by the Hazardous Waste Management Act. The findings and recommendations of the Moderate Risk Waste Management

Plan have been totally integrated into this document as an ongoing effort to streamline the planning process in Solid Waste, improve solid waste permitting, and address proper solid waste handling.

1.6 BACKGROUND OF THE PLANNING AREA

An understanding of the environmental, land use and demographic features of Lincoln County assists in providing baseline information regarding existing and potential future solid waste handling needs. This chapter provides information on the natural environment of the county, which includes climate, geology, soils, and topography. The human environment is described, including area population and economics.

1.6.1 Natural Environment

Lincoln County is located in northeastern Washington. The County is approximately 2,340 square miles (3.5% of the State of Washington) and is characterized by large areas of agricultural and grazing lands. It is bounded to the east by Spokane County, to the west by Grant County, to the south by Adams County (as well as a small part of Whitman County at its southeast corner), and to the north by Ferry and Stevens counties (and a small part of Okanogan County at its northwest corner). The County's northern border with Ferry and Stevens counties is delineated by the Spokane River for roughly half the length of the border. The Spokane River empties into Franklin Roosevelt Lake, a reservoir of the Columbia River formed by Grand Coulee Dam. The lake forms the second half of the northern border.

1.6.1.1 Geology

The area south of the Columbia River lies on tertiary age basalt of the Columbia River Group deposited by a series of lava flows, many of which were separated by periods of erosion and/or sedimentation. The basalt layers vary in thickness and have an aggregate thickness of up to 5,000 feet. Dynamic earth forces have created relief in the area and erosive forces accompanying the ice ages have created deep coulees and basins filled with alluvium. Immediately adjacent to the Columbia River and along Hawk Creek, preglacial deposits exist. These deposits consist of well sorted and bedded clay-sandstone combinations with inter-beds of volcanic ash and cemented gravels.

1.6.1.2 Soils

Soils of Lincoln County vary from water deposited alluvium in the basins and coulees to windblown sand and loess in the uplands. In general, the alluvial soils vary from silt loam to very coarse gravelly, sandy loams and are well drained. Soil depths throughout the county vary greatly with shallow to surfacing basalt formations (scab rock) quite common.

1.6.1.3 Topography

Lincoln County can be separated into two distinct drainage systems. The northern portion including the Hawk Creek area drains north to the Columbia River (Lake Roosevelt). The balance of the county lies in the Upper Crab-Wilson drainage area which drains to the southwest

into Moses Lake. Elevations are generally over 2,000 feet and range from about 1,200 feet to 3,600 feet. The uplands are characterized by gently rolling hills.

1.6.1.4 Climate

Lincoln County has a semiarid climate with four distinct seasons. Summers are usually hot and dry; winters cool and wet. The diurnal range in temperature is approximately 15 degrees Fahrenheit in winter and 35 degrees Fahrenheit in summer. Precipitation ranges from an annual average of about eight inches in the southwest to about 18 inches in the northeast. Precipitation is light in summer, increases in the fall, reaches a peak in winter, then gradually decreases in the spring with an increase in late May and June followed by a drop that is quite sharp in early July.

The depth of the frost in the soil varies from winter to winter and is influenced by vegetation, soil type, snow cover, and temperature. During an average winter, frost reaches a depth of 15 to 20 inches. If several inches of snow accumulate before cold weather begins, the frost penetration may be only a few inches. In some of the years of lighter snowfall and colder temperatures, the frost has reached a depth of 30 to 36 inches.

1.6.2 Human Environment

Lincoln County’s population resides in small cities and towns interspersed across the county. The population distribution across the county averages 4.4 people per square mile, with slightly more residents living in the incorporated cities/towns of the county as compared to the unincorporated area. Population data and distribution for 2020 are shown in Table 1.

Table 1. Lincoln County Population (2020)

Area	Population	Percent
Unincorporated	4,978	48%
Incorporated	5,457	52%
Almira	276	2%
Creston	262	2%
Davenport	1,717	16%
Harrington	413	3%
Odessa	946	9%
Reardan	584	5%
Sprague	452	4%
Wilbur	807	7%
Total	10,435	100%

1.6.2.1 Land Use

Approximately 1,351 square miles, or nearly 55 percent, of the county land use is in farms, with approximately 500,000 acres of that harvested yearly (primarily wheat). Rangeland makes up 31

percent of the total land area, open range is approximately 6 percent and woodland makes up 2 percent. Urban and built-up areas, waters, and public lands (except croplands) make up the remaining 6 percent of the county's land use.

1.6.2.2 Industry and Employment

Agriculture is the primary industry in the county and is among the top wheat producing regions in Washington. Information on major industry sectors in the county can be found at <https://esd.wa.gov/labormarketinfo/covered-employment>.

1.6.2.3 Population Trends

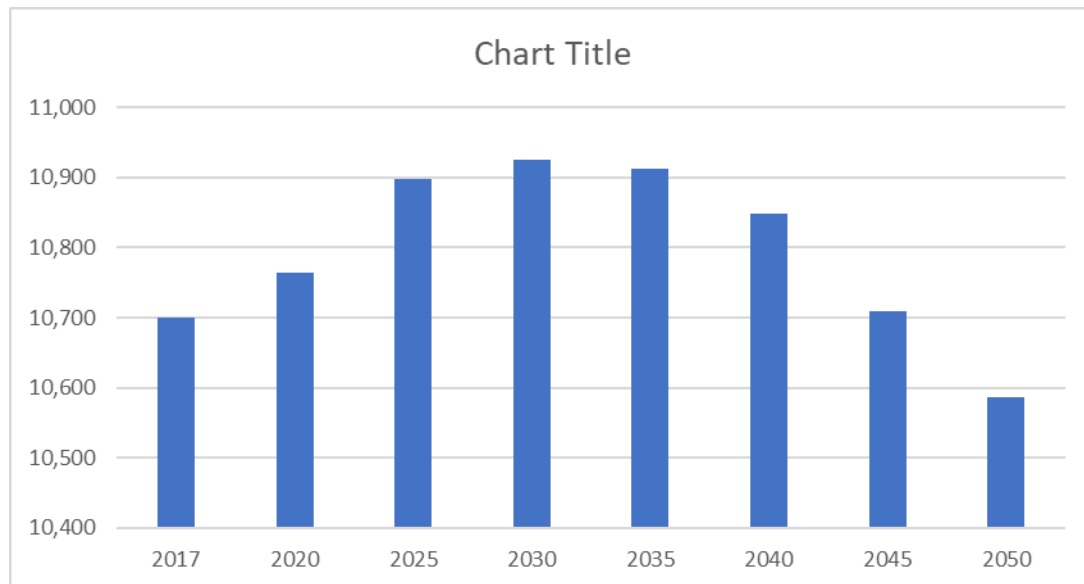
Lincoln County has an estimated 2017 population of 10,700 with slow growth projected until 2035 with decline in population through 2050 as shown in Exhibit 1.

Exhibit 1. Lincoln County Population, 2017-2050

2017 GMA Projections - Medium Series

Supplemental Projections of the Total Resident Population for Growth Management

Estimate		Projection				Supplemental Projection	
2017	2020	2025	2030	2035	2040	2045	2050
10,700	10,765	10,897	10,926	10,912	10,848	10,710	10,586



Source: State of Washington, Office of Financial Management

* Medium Growth Management Projection

Section 2

Waste Generation

2 WASTE GENERATION

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, facilities, and programs to be implemented to meet those needs. This chapter analyzes Lincoln County's waste generation trends and uses historical and projected population data to produce a 20-year waste generation forecast.

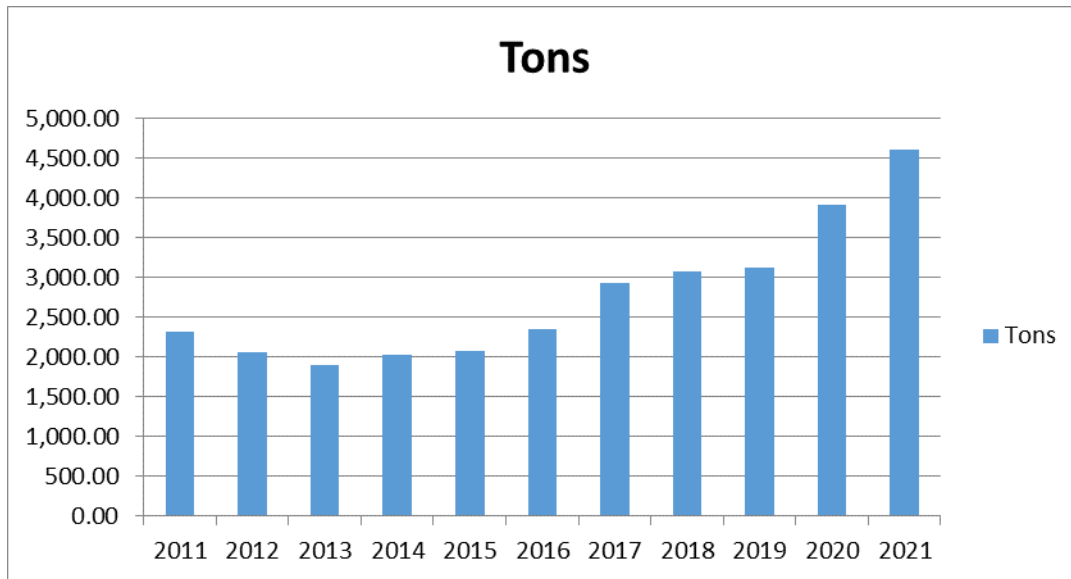
For the purposes of this analysis, waste generation is defined as the sum of tons of solid waste disposed and diverted in Lincoln County. As used in this Plan, disposed solid waste is considered to be all solid waste placed in landfills or incinerated. Diverted waste includes waste that is recycled, composted, or otherwise diverted from disposal. The largest component of the waste stream is mixed municipal solid waste (MSW) and consists of waste typically generated by residences, offices, and other businesses and institutions. Other wastes include moderate risk waste and miscellaneous wastes, such as construction and demolition debris, wood waste, agricultural waste, biomedical wastes, tires and automobiles, electronic wastes, and other types of wastes. Each category of miscellaneous waste has its own characteristics and handling needs. Miscellaneous waste and hazardous wastes produced by households, and by businesses in small quantities, are addressed separately in this Plan.

2.1 WASTE ANALYSIS

2.1.1 Waste Disposal

Exhibit 2 depicts the amount of municipal solid waste disposed from the Lincoln County Transfer Station over the past eleven years, from 2011 through 2021.

Exhibit 2. Tons of Solid Waste Disposed, 2011-2021



2.1.2 Waste Diversion

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

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 Environmental Protection Agency. It includes durable goods, nondurable goods, containers and packaging, food wastes, and yard trimmings. It does not include industrial waste, inert debris, asbestos, bio solids, 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.

Available recycling and diversion rates for the county from 2015-2017 are presented in Table 2.

Table 1. Lincoln County Recycling and Diversion , 2015-2017¹

Recycling/Diversion Rates	2015 (tons)	2016 (tons)	2017 (tons)
Total MSW Recycled	657.89	1,995.97	2,054.53
Total Diverted Material	68.97	177.93	3.27
Total Recovery (MSW Recycled + Diverted)	726.86	2173.90	2,057.80
MSW Recycling Rate	22.9%	46.0%	40.6%
Diversion Rate	24.2%	47.4%	40.8%

2.1.3 Existing and Projected Waste Generation

Existing Waste Generation

According to data from the County and from Ecology, in 2017 the county generated approximately 5,055.13 tons of solid waste, including an estimated 2,997.33 tons of waste disposed and 2,057.80 tons diverted from disposal. Table 7 contains data on solid waste generation and diversion for the County for 2017.

Lincoln County Waste Generation, 2017

Waste Stream	Tons
Total Solid Waste Diverted	2,057.80
Total Solid Waste Disposed	2,997.33
Total Solid Waste Generated	5,055.13

¹ Washington Department of Ecology, Recycling and Diversion Rates.

Projected Waste Generation

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 for the County was calculated using the known data from 2007.

That calculation is:

$$\text{Generation Rate (2017)} = \frac{\text{Total Waste Generation (tons)}}{\text{Population (pp)}} = \frac{5055.13 \text{ (tons)}}{10,700 \text{ (pp)}} \times \frac{2,000 \text{ lb}}{\text{ton}} \times \frac{\text{year}}{365 \text{ days}} = 2.6 \text{ lb/pp/day}$$

2.2 COUNTY DEMOGRAPHICS

2.2.1 Population

As discussed earlier, Lincoln County has an estimated 2017 population of 10,700. Population growth from 2000 to 2017 was approximately 3.9 percent.

Estimates prepared by the Washington State Office of Financial Management (medium series) project the population to be 10,912 by the year 2035. This is an increase of 212 people, or almost a 2 percent increase over the period from 2017 to 2035. The population of 10,912 in the year 2035 is projected to be 10,586 by the year 2050 for a decrease of 326 people for almost a 3 percent decrease in population over the period from 2035 to 2050 (see Exhibit 3)

Exhibit 3. Lincoln County Population, 2017-2050

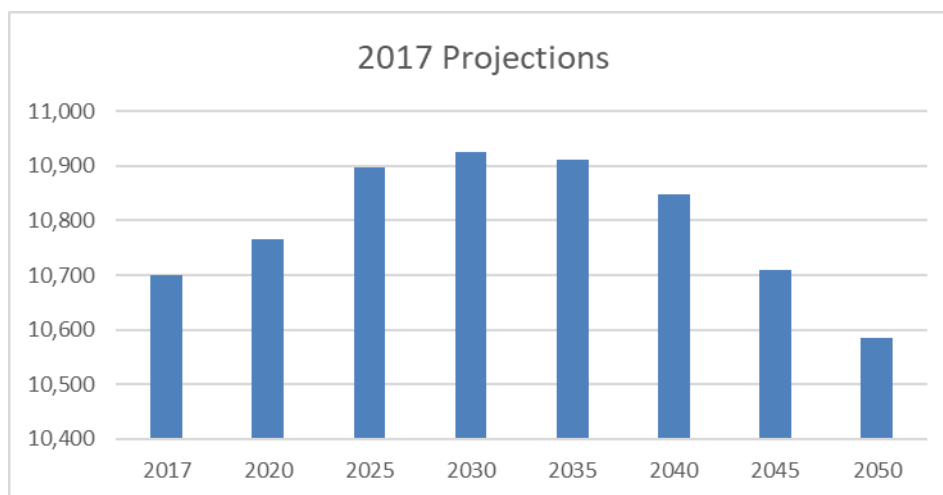
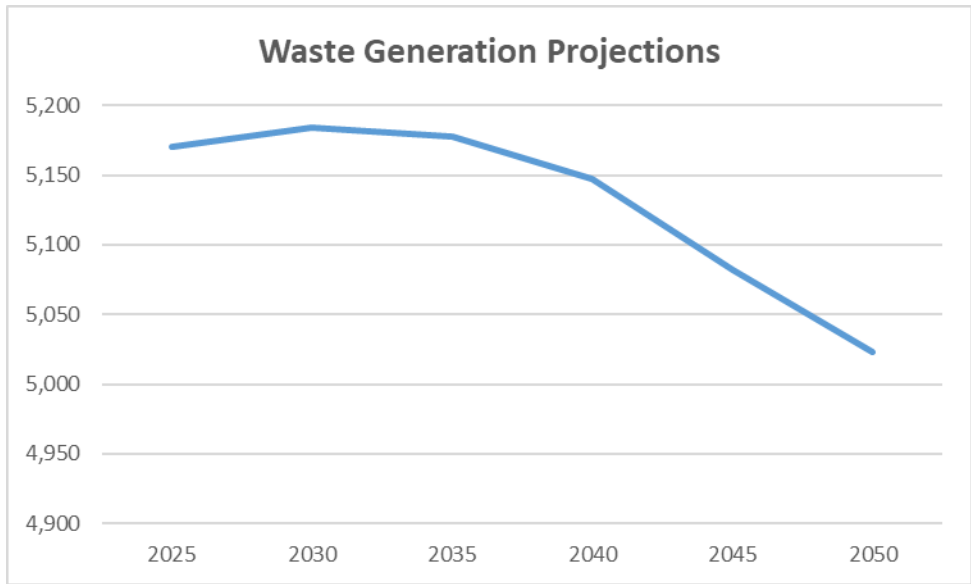


Table 8 combines population projections with the calculated per capita waste generation rate for the county. This growth in waste generation is depicted graphically in Exhibit 4.

Table 8. Lincoln County Solid Waste Projections

Year	Population	Projected Waste Generation (Tons)
2025	10,897	5,170.63
2030	10,926	5,184.39
2035	10,912	5,177.74
2040	10,848	5,147.38
2045	10,710	5,081.90
2050	10,586	5,023.06

Waste Generation Projections, 2025-2050



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.

1.2.2 Level of Service

The population projections for Lincoln County predict a growth of approximately 212 people by the year 2035. To maintain an adequate level of service, Lincoln County will need to consistently monitor waste management programs and make the appropriate adjustments for the additional tons generated.

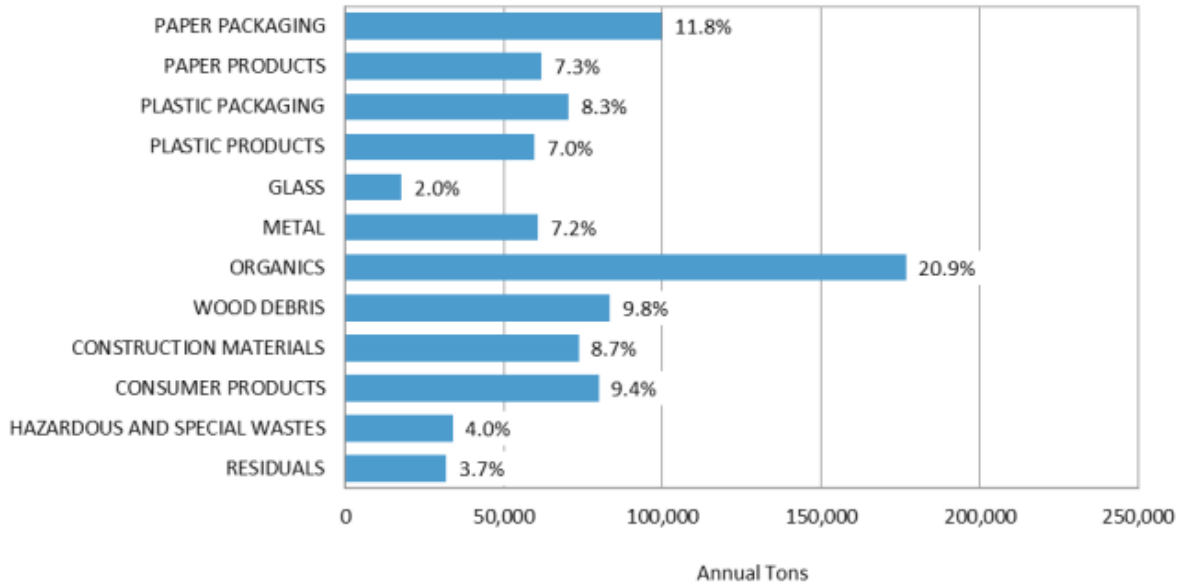
2.3 WASTE COMPOSITION

In addition to the amount of waste being generated, it is important to evaluate the components of disposed waste to identify potentially recyclable materials. This information is valuable in planning effective recycling and waste minimization programs. Several factors affect waste composition, including opportunities available 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 single and multi-family dwellings, and technological advances.

No detailed waste composition study has been performed to date for Lincoln County. 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 Lincoln County's disposed waste, due to similar geography and climate.

Waste Disposal Composition Summary for Lincoln County using Eastern Washington Percentages

Figure 23: East WGA



Section 3

Education and Outreach,
Waste Reduction, Reuse, Recycling and Organics

3 EDUCATION AND OUTREACH, WASTE REDUCTION, REUSE, RECYCLING AND ORGANICS

This chapter describes existing programs and potential options for reducing the amount of waste being generated and disposed of in Lincoln County. The programs discussed in this chapter are organized as follows:

- Public Education & Outreach
- Waste Reduction
- Reuse
- Recycling
- Organics Management

This chapter provides an update of the County’s waste diversion methods as well as fulfills State requirements regarding waste reduction and recycling programs. The Revised Codes of Washington (RCW), RCW 70A.205 requires that local solid waste management plans demonstrate how the following goals will be met:

- Washington State’s goal is to achieve a statewide recycling and composting rate of 50%.
- There is a statewide goal to eliminate yard debris from landfills in those areas where alternatives exist.
- Source separation of waste (at a minimum, separation into recyclable and non-recyclable fractions) must be a fundamental strategy of solid waste management.
- Steps should be taken to make recycling at least as affordable and convenient to the ratepayer as mixed waste disposal.

The next section, public education, and outreach is common to all four programs (waste reduction, reuse, recycling, and organics). Messages covering all four topics often are included in a single outreach effort. The next section, waste reduction, discusses programs that reduce the amount of waste generated, while the final two sections discuss programs that reduce the amount of waste requiring disposal (recycling and organics management).

3.1 PUBLIC EDUCATION AND OUTREACH

3.1.1 Existing Programs

Public education and outreach programs supporting waste reduction, reuse, recycling, and organics management activities include:

Lincoln County: The County Public Works Department provides information on waste reduction and recycling on the County’s website, social media page, in the newspaper, and hand-outs at the Public Works office, County courthouse and the transfer station, as well as to the cities and towns for distribution to their residents and businesses.

Almira: The Town uses utility inserts and public notice boards (post office and town hall) to post notices about waste reduction and recycling.

Creston: Lincoln County Solid Waste Department is working with the town on setting up a program for utility flyers.

Davenport: The City does not have a formal public outreach or education programs for waste reduction, reuse, recycling, or organics. The city works with local groups to promote an annual cleanup day.

Harrington: The City does not have a formal public outreach or education programs for waste reduction or recycling. The city does have an outreach program for organics due to the Apple Maggot quarantine area they are located in.

Odessa: The City uses City Council meetings and the local newspaper to encourage residents to participate in recycling. The city provides information on the location of recycling bins, and the types of materials that are accepted for recycling.

Reardan: The Town includes waste reduction, reuse, and recycling information in the utility bills. The town does not have a formal public outreach or education program for waste reduction, recycling, or organics.

Sprague: The City sends out newsletters in the utility bills and distributes flyers with information on waste reduction, recycling, and organics due to the Apple Maggot quarantine area that they are located in.

Wilbur: The Town does not have a formal public outreach or education program for waste reduction, recycling, or organics.

3.1.2 Key Issues

One of the goals established for this plan is to increase public awareness of solid waste issues by continuing and expanding educational opportunities within the county. The County and incorporated cities and towns should annually monitor existing efforts to gauge attendance, interest, and feedback. Adjustments to educational and outreach programs should be made, as necessary.

3.1.3 Options

The following options for public education and outreach were evaluated by the SWAC.

1. Publications

Consider ways to expand public outreach through available local publications and resources, such as the Lincoln Advertiser. Content of public notices and information would include information on recycling, reuse, waste reduction, solid and hazardous waste disposal, transfer station operations, collection, littering and other solid waste enforcement issues.

2. Website and Social Media

Lincoln County constantly monitors and updates its website and social media pages to be a successful component of a waste reduction, recycling, and reuse education campaign. As with any promotional medium, the website must be user-friendly, accurate, and interesting.

3. Education and Technical Assistance to Schools and Businesses

Several programs exist, including those provided by the County. This option recognizes the need to reach schools and businesses regarding their handling of waste. Outreach to schools and businesses should consider free technical assistance and waste audits to identify opportunities to implement waste reduction, recycling, and composting activities. The benefits of this alternative are that commercial sources produce a significant portion of solid waste in Washington. Focusing waste reduction efforts towards the business sector can have a large impact on the waste stream. This alternative is in line with the State's Beyond Waste Plan (Initiative 1). It is also important to provide technical assistance to schools. A functional waste reduction and recycling program in a school yields daily reminders to the students of their direct impact on the environment.

3.2 WASTE REUSE AND REDUCTION

Waste reuse is defined as using an object or material again, either for its original purpose or for a similar purpose, without significantly altering the physical form of the object or material. Reuse prevents objects and materials from becoming waste, and therefore is considered to be a form of waste prevention.

Activities and practices that reduce the amount of waste generated are classified as "waste reduction." Waste reduction is the highest priority for solid waste management according to RCW 70A.205. A goal established by this plan is to manage solid wastes in a manner that promotes, in order of priority: waste reduction, reuse, recycling, and disposal.

3.2.1 Existing Programs

Several waste reduction and reuse programs and activities exist in the county, including the following:

Lincoln County- The County has a recycle by reuse and swap shop at the Transfer Station. The program allows residents to drop off unwanted household items that will be made available for free to other residents.

The County has implemented several source reduction programs for their own operations, including chipping materials from road debris and road maintenance projects, and clearing and grubbing for road and bridge projects.

Almira- The Town does not have a formal waste reduction recycling program. However, the town utilizes the counties recycling drop box program and promotes it through utility bill flyers and informational handouts at city hall. Along with a number of activities that occur in Almira throughout the year, including donations to charities, such as the Wilbur Senior Center, and an all-town yard sale each spring. The Town sponsors an annual "Clean-up Days" with the Lion's Club, where residents can get 1 cubic yard of waste hauled free by the Lion's Club, and then they pay for any additional waste that is hauled.

Creston- The Town is preparing to start a waste reduction, reuse & recycle promotions through utility flyers and informational handouts at city hall.

Davenport- Although the City has no formal waste reduction program, the City works with local groups to promote an annual clean-up day. Internally, the city encourages vendors to use environmentally responsible products and practices, and provides a site for clean green yard waste, where for a nominal charge; residents can bring their yard waste material. The material is chipped and used for ground cover at City facilities, and/or given to the chipping contractor in payment for services.

Harrington-The City has no formal waste reduction program. The city also utilize the county's recycling drop box program. The city has an organics diversion program where they provide a bin for organic material to be collected and transported to the Barr-Tech Company.

Odessa- The Town has local organizations in the city where residents can take useable items for donations and reuse. The city purchases some recycled content office supplies. They also utilize the county's recycling drop box program.

Reardan- The Town has no formal waste reduction program; however, they provide information to residents on the location of donation sites, such as Good Will and Care & Share. The Town will occasionally burn tree limbs and yard debris to reduce the quantity that must be landfilled.

Sprague- The City has no formal waste reduction program. The High School has a "closet" program where residents can drop off clothes and shoes for others to pick up and use. The city has an organics diversion program where they provide a bin for organic material to be collected.

Wilbur- has no formal waste reduction program. When available, the Town purchases recycled content products, and chips green materials from landscaping and other operations. The Town also provides a yard waste and brush drop off for residents at a minimal fee.

3.2.2 Key Issues

The County and cities could do more to adopt policies and procedures that address waste reduction, including procurement and contract requirements. The County and cities could also improve outreach efforts to promote existing waste reduction programs. In addition, it is important to be able to measure the results of waste reduction activities. Personal and commercial efforts in waste reduction cover a broad range and are not well documented. Waste reduction could be shown to be handling significantly more waste if the personal and commercial efforts could be measured more completely.

3.2.3 Options

1. Procurement of Recycled Products

Local, state, and federal government can and do use their tremendous purchasing power to influence the products that manufacturers bring to the marketplace. Procurement programs create viable, long-term markets for recovered materials and provide more efficient use of valuable resources. Research is necessary to determine the types of recycled content products that are available, their specifications, performance, and cost. Much of this research is available from other agencies and municipalities.

Government purchasing agents often have concerns about the quality and price of recycled-content products. Careful testing and selection of recycled content products can minimize concerns about product quality. Certain recycled-content products may have a higher initial purchase cost but may require less maintenance or long-term costs over the life of the product. Cost concerns can be addressed by considering short-term and long-term costs (life cycle costs) in comparing product alternatives.

The County and the local jurisdictions can draw upon work by the US EPA and others to ensure that they are purchasing, to the maximum extent practicable, products made with recycled content. The County can help to synthesize information for businesses and individuals and help to identify recyclable materials and recycling opportunities.

2. Environmentally Preferable Purchasing

More recently, efforts have expanded beyond buy-recycled programs and policies (discussed above) to “Environmentally Preferable Purchasing” (EPP). In fact, the federal government has been directed by Executive Order 13101 to identify and give preference to the purchase of products and services that pose fewer environmental burdens. 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.

Lincoln 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.

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.
- Implementing “On-demand” printing of documents and reports as they are needed.
- 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.
- Mulching pruned material from parks and using on site.

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. 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, purchasing patterns, shifts in public perception as identified through surveys, business policies, and county and city initiatives and ordinances.

5. Reuse and Swap Shops

Some communities establish reuse and Swap operations at landfills and transfer stations. 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. At the Lincoln County Transfer Station, there is a waste exchange program for household hazardous waste and items deemed usable to be placed in. The Transfer Station also has an area where residents can also drop off or take additional items, such as bicycles, toys, electronics, construction materials, and other reusable materials. The County uses these operations to keep these materials out of the landfill and increase diversion.

6. Producer Responsibility/Product Stewardship

Lincoln County encourages and supports efforts in Product Stewardship. This measure 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 alternative would shift the existing product waste management system from one focused on government funded and ratepayer financed waste diversion to one that relies on producer responsibility to reduce public costs and drive improvements in product design that promote environmental sustainability. The policy would seek to build relationships among local government and other stakeholders to increase capacity and knowledge to bring about producer financed and managed systems for life cycle and end of life management of their products.

3.3 RECYCLING

Recycling has been established by the State as a fundamental aspect of solid waste management that is reflected in various sections of RCW 70A.205. Specifically, solid waste management plans should provide programs that:

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

3.3.1 Existing Programs (2018)

Recycling Bins

The County operates a system of recycling drop box collection sites located throughout the county. The bin sites are located in Almira, Odessa, Reardan, Harrington, Seven Bays, Creston School, Keller, and at the County's Transfer Station. Each site contains a bin for the separate collection of newspaper and magazines, aluminum, tin, and plastic #1 & #2 bottles and jugs, and cardboard. The County collects the bins when they are full and transports the materials to the Transfer Station. At this time, all materials are collected, and source separated then baled for transport to a processor.

Recycling Quantities

The following table breaks down in pounds the recyclable commodities collected and processed at the Lincoln County Transfer Station in 2022 is shown in Table 1.

Table 1 Lincoln County Recycling, 2022

IN POUNDS RECYCLING COMMODITIES	SUMMARY LBS/EACH SOLD
Aluminum Cans	6,377.00
Aluminum MISC	26,491.00
Batteries	8,246.00
Brass	1,822.00
Cardboard	199,951.00
Catalytic Converters (each)	18
Copper	8,739.00
Electronics	15,828.00
Alternators/Starters	1,041.00
Lead	10
ONP	66,300.00
Organics	329,920.00
Paint Latex	514
Paint Oil	109.5
Plastics	37,566.00
Radiators	3,715.00
Scrap Metal	110,853.00
TOTAL POUNDS RCVD	817,500.50

3.3.2 Key Issues

Following is a summary of several key issues surrounding recycling programs in the county.

Recycling Bin Program Costs and Revenues

The existing system is expensive for the County to operate, especially with the volatility of the recyclable commodities market. In 2008, the County Public Works staff met with the councils of the Cities and Towns to discuss recycling bins. Some indicated a willingness to pay for the recycling bin services; others indicated they would not participate. A resolution adopted by the County Commissioners went into effect January 1, 2009, to charge a fee for recycling bin services.

The viability of the County's recycling program will continue to rely on the volatility of the market for recyclables, disposal, transportation and other cost factors, and public participation. All these elements must be evaluated to accurately assess the continued operation of the program. The County will use the evaluation of these factors to determine the need to increase the recycling program rates and other program fees.

Designation of Recyclable Materials

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." 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 be able to benefit from some of the exemptions granted under Section 350 does not exist. If materials are not designated as recyclables, they remain regulated as solid wastes.

The following materials are designated as recyclable materials in the county:

- Paper (newspapers, mixed paper, and corrugated cardboard).
- Plastic bottles (PETE, and HDPE).
- Steel and aluminum cans.
- Ferrous and non-ferrous metals.
- Used motor oil.
- Antifreeze.
- Automobile batteries and rechargeable batteries
- Select electronics (Computers, monitors, TVs and tablets).
- Tires.
- Yard debris, including leaves, grass, and tree stumps.
- Pallet Boards

- Non-treated lumber

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 no 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.

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 County currently uses the following designation to determine the level of service provided to residents:

Urban = Population greater than or equal to 2,500 per square mile.

Using these criteria, the entire Lincoln County is considered rural. The rural nature of Lincoln County limits the economic feasibility of certain methods of recyclables collection. For example, curbside collection may not be economically feasible in any of the communities.

3.3.2 Options

1. Internal Recycling Program

The Counties internal recycling program consists of roll off bins located at the public works building and recycling bins located throughout the courthouse.

2. Special Event or Public Venue Recycling

A new law (RCW 70A.200.100) 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, 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.

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. 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 that are not open to the public.

Another 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).

The number and types of collection containers and how they are serviced will need to vary somewhat 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.

3. Evaluate Recycling Bin Program

Although the existing system is well utilized by the public, it is very expensive for the County to operate, especially with the volatility of the recyclable commodities market. The County has implemented new recycling fees to cover the costs of the program. Lincoln County and the cities should evaluate the existing system and consider options to decrease County costs and increase participation. Several options could be evaluated, including:

- Further increasing recycling fees charged to cities to insure financial viability of the recycling bin program.
- Consider the option of contracting for the service of the bins to a private operator.
- Using volunteers or non-profit organizations to assist with recycling collection.

4. Recognition for Commercial Waste Reduction and Recycling Successes

Businesses are not always motivated solely by the “bottom line.” Recognizing this fact, many communities publicly recognize and reward local businesses and organizations for their environmental achievements. The County and Cities/Towns could take this approach and could provide recognition to groups or businesses that successfully prevent or recycle waste.

5. Business Education

Much like the education programs aimed at residents, the County and Cities/Towns can develop educational materials for businesses regarding waste reduction and recycling opportunities. For outreach, businesses could be targeted by the type of waste they generate. One approach involves categorizing the types of businesses currently operating in the county and their related wastes. For example, the North American Industrial Classification System (NAICS) Codes are used throughout North America to group establishments into broad and specific industries. Industries within the same NAICS code are likely to exhibit similarities in the composition of their disposed waste streams. If one industry is particularly prevalent in a region, for example, it might be cost-effective to target businesses in that particular industry.

6. Commercial Waste Audit Assistance

Many industry associations have taken on the role of promoting recycling within their industries. This is particularly true for large businesses where waste reduction and recycling provide opportunities to reduce overhead costs and where disposal costs have risen substantially. It is often the smaller businesses that may lack information about opportunities and the role recycling may play in reducing disposal costs.

Lincoln County could provide businesses with free technical assistance, by providing waste audits. A waste audit is essentially a comprehensive study of waste generated by a business or establishment. The information from the waste audit is the basis for identifying and developing waste reduction and recycling options for the business.

7. Use Economic Development to Attract Recycling Businesses

Lincoln County could consider mechanisms to attract businesses that manufacture recycled products or assist its current businesses with methods to use recycled materials. This helps to close the loop for recycling and provides Lincoln County with markets for its collected recyclables.

The County and Cities/Towns should be proactive in their work to attract businesses that manufacture products using waste materials, and also create jobs and tax revenue for the region, by offering profitable incentives to those manufacturers, such as:

- **Technical Assistance:** Businesses are provided information on sources of secondary materials and processes, markets, technology, and useful organizations.
- **Marketing Support:** Inclusion in the state-wide buy recycled directory.

3.4 ORGANICS MANAGEMENT

The 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.”

3.4.1 Existing Programs

There are several organics programs and activities in the county.

Lincoln County- accepts yard waste at the Transfer Station, including grass clippings, pine needles, vines, sod, leaves, thatch, cones, weeds, and branches and limbs no larger than 12 inches in diameter or longer than twelve feet in length.

Almira- has a no burn policy year-round, and in cooperation with Ecology, allows yard waste to be placed at a town site. Town crews maintain the site, and in the past, the burn-able have either been chipped or burned. Often, wood is reused by residents for wood burning stoves.

Creston- obtains a burn permit from Ecology and opens up its burn pile for residents’ yard waste twice a year.

Davenport- all yard waste and “clean green” is accepted at the closed City landfill site for annual chipping and mulching of the debris pile. The chipped product is then traded to the contractor for the use of the equipment.

Harrington- is located within an Apple Maggot quarantine area and serviced through an interlocal agreement with the Solid Waste Department which provides a roll off bin and transports their green waste to the Barr-Tech facility for processing.

Odessa- has no formal organics program.

Reardan- permits open burning of yard waste during specific dates in the spring and fall.

Sprague- is located within an Apple Maggot quarantine area and the city provides an opportunity for residents to bring their yard waste for burning one time per year.

Wilbur- provides a yard waste and brush site for residents at a nominal fee. The Town also chips materials from its own operations.

3.4.2 Key Issues

Yard waste comprises a significant portion of the recyclable waste stream. The ban on outdoor burning in urban areas will increase this waste stream. Backyard composting and mulching lawnmowers can lessen the impact of grass clippings and leaves. Brush, limbs, and other woody wastes need to be addressed. Community clean-up days where residents are allowed to self-haul waste to disposal facilities show an estimated 40% of material is “woody waste.” Chipping of this material reduces volume and creates a material that is reusable as mulch, animal bedding, and soil amendment.

Lincoln County is working to help achieve Washington’s statewide goal to eliminate yard debris from landfills in those areas where alternatives exist. Additionally, one of the initiatives of the State’s Beyond Waste Plan is to increase recycling of organic materials. Furthermore, as of December 30, 2000, burning of residential and land clearing debris is not allowed within the urban growth areas of cities or where there are reasonable alternatives. There also have been instances of illegal dumping of green waste within the county.

Many restaurants, institutions, supermarkets, and food suppliers often have leftover food which can be a good candidate for diversion, as well as provide greater uses for this resource. Food waste is often characterized as “pre-consumer” or “post-consumer.” Pre-consumer food waste typically is generated as a result of commercial/industrial food production or preparation for consumption. Post-consumer food has been served to consumers and is not recoverable for human consumption.

3.4.3 Options

1. Implement Yard Waste Chipping Program

Lincoln County could consider expanding ways to provide chipper rental at designated drop-off sites throughout the area. This would address the need for additional capacity to handle yard waste in the county. This option would only be implemented when appropriate end use markets are available for the chipped material, which may include public use for parks, medians or other landscaped areas, or in private operations.

2. Food Waste Management

The suggested order for management of food waste which cannot be prevented is: (1) food donation; (2) convert to animal feed and/or rendering; and (3) compost. Local establishments should be encouraged, through educational efforts, to follow this hierarchy when possible. Local haulers could also be encouraged to offer food waste collection services to commercial customers.

- **Animal Feed:** Food waste may be used as a source of nutrition for animals. Food waste can either be processed minimally and fed to animals or fully processed to remove excess moisture and condensed into small pellets. For this to be a viable option, the food waste must be free of contaminants such as plastics, beverage containers, straws, and utensils.
- **Rendering:** Rendering companies process animal by-products into saleable commodities. Grease, fats, and oils from restaurants are common by-products collected and processed. Many companies also will accept meat, fat, bone, and carcasses.
- **Compost:** Food waste that is not fit for food donation or consumption by animals can be suitable for composting. Food waste requires proper source-separation and proper containers to deter odors prior to collection. Again, the waste must be free from plastic contaminants. Food can be collected and sent to a composting facility, generally as part of a separate collection route, as well as composted on-site with commercially available vessels.

3. Backyard Composting

The County could implement a Backyard Composting education program for residents. The program would include demonstration workshops that teach how to compost green waste and other organics. As part of the program, the County could offer composters for sale to residents.

3.5 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 Cities/Towns will continue to monitor the results of Plan implementation to determine program results and effectiveness.

For a full description of each recommendation, please refer to the discussion of options contained in Sections 3.1.3, 3.2.3, 3.3.3, and 3.4.3.

Public Education and Outreach

1. Publications
2. Website

3. Education and Technical Assistance to Schools and Businesses

Waste Reduction

1. Procurement of Recycled Products
2. Environmentally Preferable Purchasing
3. County/City Waste Reduction Policies
4. Methods to Measure Waste Reduction Results
5. Producer Responsibility

Reuse

1. Reuse Swap Shops

Recycling

1. Internal Recycling Program
2. Special Event or Public Venue Recycling
3. Evaluate Recycling Bin Program
4. Recognition for Commercial Waste Reduction and Recycling Successes
5. Business Education
6. Commercial Waste Audit Assistance
7. Use Economic Development to Attract Recycling Businesses

Organics

1. Yard Waste Chipping Program
2. Food Waste Management
3. Backyard Composting Program