

Lincoln County Comprehensive Plan Update

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Prepared by
Lincoln County Land Services
&
Lincoln County Planning Commission

Acknowledgements

Lincoln County Planning Commission:

Margie Hall
Annette Sandberg
Justin Slack
Keith Nelson

Lincoln County Land Services:

Courtney Thompson, Planner
Chip Hunt, Building Inspector

Lincoln County Board of County Commissioners:

Rob Coffman, District 3
Scott Hutsell, District 2
Mark Stedman, District 1

Lincoln County Comprehensive Plan

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Forward

The Lincoln County Comprehensive Plan is an update of the County's existing comprehensive plan, which was adopted in 1983. Upon adoption, this new plan replaces and supersedes the 1983 document. The comprehensive plan consists of goals, objectives and policies, which will help guide the land use decision making of County officials during the next 20 years. The plan should be reviewed at least every five years and modified or updated as deemed appropriate by the board of county commissioners. The comprehensive plan is not a law or ordinance, but a guide for land use decision making. It establishes the long term goals which the County seeks to achieve and it establishes the policy guidelines for when, where and how to provide public facilities, change zoning designations and otherwise facilitate, coordinate and regulate development. Some of the plan's policies are implemented upon adoption of the plan. Other policies are not implemented directly by the plan, but rather will be implemented through future changes to the County's development regulations after adoption of the plan. Included in the plan is an implementation strategy, which outlines the tasks that need to be completed in order to implement the policy recommendations. Also, this plan should be reviewed at the beginning of each year by the planning commission in order to determine whether the vision of this plan is being implemented.

Introduction

The purpose of the Comprehensive Plan

The Comprehensive Plan guides policy decisions related to the physical, social, and economic growth of the County. Adopted by the County Commissioners, this Plan is an official document to guide growth and development over the next 20 years. The Plan provides direction through a framework of goals and policies that aim to better citizens' quality of life and promote Lincoln County.

Compliance with Washington State Statutes.

This Comprehensive Plan is being prepared in compliance with Chapter 36.70 RCW, the Planning Enabling Act with a stated purpose of:

"The purpose and intent of this chapter is to provide the authority for, and the procedures to be followed in, guiding and regulating the physical development of a county or region through correlating both public and private projects and coordinating their execution with respect to all subject matters utilized in developing and servicing land, all to the end of assuring the highest standards of environment for living, and the operation of commerce, industry, agriculture and recreation, and assuring maximum economies and conserving the highest degree of public health, safety, morals and welfare".

Implementation of the Goals and Policies

This plan is a general Policy document to guide the physical development of the County. The plan does not have the force of law as a regulation or ordinance for the enforcement of its goals and policies, Lincoln County primarily uses the zoning and land division codes, health requirements and other criteria to regulate and enforce many of the land use policies of this plan. An implementation strategy should be included to provide a “roadmap” as to how the goals and policies should be implemented through regulations and other means. It also uses the plan as evidence of vision and intent as described herein.

The goals and policies of the Comprehensive Plan will help guide the County in its decisions and as new development or changes occur, help to maintain and enhance the qualities that make Lincoln County a great place to live, work, recreate and enjoy the natural and community amenities.

Zoning and the Comprehensive Plan

Lincoln County’s “Title 17 - Zoning” consists of both a zoning map and a written code, which divides the County into zoning districts, including recreational, agricultural, residential, commercial and industrial. The zoning regulations describe what type of land use and specific activities are permitted in each district. The zoning regulations also provide procedures for rezoning and other planning applications. The zoning map and zoning regulations provide the property with “entitlements” for development, while the Comprehensive Plan provides a guide for the future development of the property. When changing the zoning of a particular property(s), the rezone should be consistent with any future land use plans and development decisions for the area.

Consistency between the Comprehensive Plan and Zoning

Comprehensive plans are advisory in nature, serving to incorporate the thinking of the community at a policy level and to guide future development decisions. In many instances, land use category designations on a land use plan map may not directly correspond to a property’s underlying zoning. Underlying zoning will be reviewed and considered throughout the development of this plan to ensure that consistency between planned land uses and zoning could be maintained to the maximum extent feasible.

Community Plans and Community Planning Areas

The Comprehensive Plan covers all of the unincorporated area of Lincoln County. It is recognized that there are certain areas that may benefit from a more focused approach. This plan supports the future creation of detailed Community Plans.

Potential areas for Community Plans include, but are not limited to:

- Seven Bays

- Lincoln
- Deer Meadows
- Hawk Creek Resort
- Edwall

Adoption Process

The Planning Commission has held numerous meetings where the public was able to give input on the Comprehensive Plan. A workshop solely for the purpose of public input was held on April 9th, 2018. A public hearing was held on October 8th, 2018 and the County Commissioners approved the new Plan on October 15, 2018.

Vision Statement

To promote a high quality of life and to preserve the rural character of our county while protecting the health, safety and well-being of its citizens & land.

Guiding Principles to Achieve the Vision

- Provide property owners fair and reasonable land uses and alternatives for their land while still respecting the environment and property rights of others.
- Support Agriculture
- Support & enhance access to public lands
- Make public safety a priority
- Provide cost-efficient infrastructure and public services
- Promote a multi-modal transportation network
- Support educational opportunities
- Manage growth and development by encouraging development in more suitable areas and provides sound economic development while protecting natural resources and the agricultural community.
- Recognize and respect the distinct places and communities within Lincoln County.

Chapter 1: Natural Environment and Resources Element



Introduction

Residents and visitors enjoy a good quality of life within the County and several distinct communities in part because of access to a safe, clean and healthy environment and abundant nearby natural resources with opportunities for several types of outdoor recreation. Also, this plan aims to promote communities and resource compatible development by including goals and policies to protect and enhance the quality of the natural environment and the

stewardship of the land for current and future generations while balancing the interest of property owners.

This plan recommends continuing to guide development away from steep slopes and to assist landowners with technical information, including GIS mapping products that help to make informed development choices that are for the economic and scenic benefit of the landowner, the property and community. For streams, floodplains and wetlands, the plan promotes precluding development from these areas through setbacks and performance standards. Also, for wildlife habitat areas, the plan recommends working with relevant federal and state agencies to improve the mapping of resources that identify important wildlife winter range habitat and migration corridors and to establish guidelines to assist developers with wildlife conscience site planning and development.

Topography & Climate of Lincoln County

Nearly all of Lincoln County lies in the physiographic province termed by geologists as the Channeled Scablands. More popularly, this region is called the Big Bend Plateau. The area essentially is a plateau, 1,500 to 2,500 feet in elevation with a system of channels or coulees eroded into bedrock by glacial rivers and streams of the recent ice age. These ancient rivers flowed from the northeastern highlands of Washington in a southwesterly direction. Part of the early drainage of the upper Columbia watershed was carried through these channels during the ice age 20,000 or more years ago. Today these channels remain as the beds of smaller streams such as Wilson Creek,



Crab Creek, Cow Creek and Lake Creek and some shallow water bodies such as Colville, Sylvan and Tue Lakes. The plateau surface and the tablelands between the channels are gently rolling with wide expanses of wind-deposited soil suited for grain farming. In places, such as west of

Davenport, bed-rock or “scab rock” is exposed at the surface. In northern Lincoln County the terrain is more elevated and is rougher where the Columbia River has cut a gorge across the plateau. This gorge is now occupied by Lake Roosevelt, the reservoir behind Grand Coulee Dam. In general, it can be termed a plains area dissected by a few shallow stream courses with many of its features modified since glacial times by a dry climate and wind erosion.

Lincoln County has a semi-arid continental type of climate which is hot and dry in the summer and cold and moderately humid in the winter. Temperatures are quite uniform over most of the county because terrain does not vary more than 1,200 feet from the lowest to highest elevations. Precipitation varies from an arid condition in the western part of the county to semi-arid conditions in the northeast. The entire area lies in the dry inter-montane basin between the Cascades and the Rocky Mountain system. Precipitation is a major controlling factor in agriculture. Most crop farming is in a zone of 10 to 20 inch annual precipitation near the reliability margin for growing wheat. Climatic conditions require adherence to a dry farming system of summer fallowing grain land and fall seeding to take advantage of maximum precipitation of the winter months. Precipitation in the Big Bend region is unreliable. Fluctuations in snow fall and rainfall, creating top soil moisture deficiencies have in the past caused failures or low yields of grain crops. Annual precipitation ranges from 8 inches and less along the western line of Lincoln County to over 20 inches in the northeastern corner. In general, the western two-thirds of the County have less than 16 inches of rainfall. Available data shows that Odessa is the driest station with about 10.58 inches per year. Davenport, in the northeast, has 16.48 inches. The summer season of June through September is dry, characterized by occasional local showers or hail storms. The winter is cloudy and moderately humid and most precipitation is received as snowfall. Winter rains and snow melt are absorbed by loam soils. By keeping the top soil stirred and loose through summer fallowing to lessen evaporation during hot summer days, a reserve of top soil moisture is accumulated for fall sown grains. A generally reliable snow cover of mid-winter also protects winter wheat and barley sprouts from freezing temperatures. Monthly temperature averages range from below freezing in mid-winter to highs of about 80 degrees Fahrenheit in mid-summer.

Critical Areas

The Washington State Growth Management Act (GMA) requires the protection of critical areas for all jurisdictions, even those not fully planning under the Act (such as Lincoln County). Critical areas are divided up into 5 categories: wetlands, aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas. Lincoln County’s Critical Area Ordinance (CAO) underwent a major update in 2016.

Shoreline Management Act

The Shoreline Management Act (SMA) RCW 90.58 requires that special planning and protection be given to shorelines of the state that meet certain criteria. Lakes 20 acres or greater and streams/ivers with a mean annual flow of 20 CFS or greater are regulated under the SMA. The shoreline jurisdiction is 200 ft from the ordinary high water (OHW) mark. That does not mean nothing can be done in that area, it means that development must follow the requirements of the SMA and the locally adopted Shoreline Master Program (SMP). Lincoln County's SMP was updated with a grant from the Department of Ecology from 2013 to 2017. The Plan can be found at <https://www.co.lincoln.wa.us/land-services/planning/>.



Water Resource Inventory Areas – WRIA 53, WRIA 43, WRIA 54, WRIA 34

A watershed is an area draining into a river, lake or other waterbody. The State of Washington has been divided into 62 Water Resource Inventory Areas (WRIA); 4 of which are partially in Lincoln County. Watershed Planning is authorized under RCW 90.82. The purpose of Watershed Planning is to develop a more thorough and cooperative method of determining what the current water resource situation is in each watershed. Watershed Planning provides local citizens the opportunity to be involved in the management of the water resources. The Washington State Department of Ecology has provided grants for the development of Watershed Plans. All of the WRIA's in Lincoln County have an adopted plan except for WRIA 53. WRIA 53 was one of the last WRIAs to develop a planning unit and receive the grant for planning. Funding was cut drastically and the Planning Unit was unable to finish the plan. One of the goals the WRIA 53 Planning Unit continuously discussed was the need for a Water Overlay Zone. This overlay zone would use data collected from monitoring wells to determine areas with a probable shortage of water to areas with probable plentiful water. Then the development regulations could be amended as needed to help lessen the stress on the groundwater supply system in our county.

Natural Resource Lands

Agricultural Lands: Those lands not already characterized by urban growth and are of long-term significance for the commercial production of horticultural, viticulture, floricultural, dairy, apiary, vegetable and animal products, or the food and fiber for consumption of livestock or other products and



processes normally associated with farming. In addition the definition specified in Chapter 84.33.020 RCW is adopted by reference.

Mineral Resource Lands: The County recognizes the local importance of protecting mineral resource areas. The mining industry in Lincoln County and its communities consists mainly of sand and gravel extraction operations at the present time. These operations are important from the standpoint of providing vitally needed construction materials. Residential, commercial and industrial construction, as well as private and public road construction and repair depend on a stable low cost source of sand and gravels. Conservation of these resources must be assured through measures designed to prevent incompatible development in or adjacent to resource lands.

Critical Areas: The legislature of the State of Washington has in Chapter 36.70A RCW, mandated each county to designate critical areas and adopt development regulations that protect these areas designated areas pursuant to Chapter 36.70A.170 RCW. Also, the protection measures must be consistent with this Comprehensive Plan adopted pursuant to Chapter 36.70, RCW. The purpose is to comply with the requirements of the Growth Management Act, Chapter 36.70A RCW, by providing reasonable and effective regulations to protect the public health, safety and welfare by identifying and protecting critical areas. Lincoln County, in compliance with, Washington State growth management mandates, finds that the impact of development in or adjacent to critical areas may poses certain threats to the public health, safety and welfare, to clean water, to fish and wildlife habitat. The Critical Areas Code can be found: <https://www.co.lincoln.wa.us/land-services/title-18-environment/>.

“Critical Areas” include the following areas and ecosystems:

Wetlands:

Lands that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities. However, wetlands include artificial wetlands intentionally created from non-wetland areas to mitigate conversion of other wetlands, if permitted by the County.

Aquifer Recharge Areas:

Areas that, due to the presence of certain soils, geology and surface water, act to recharge ground water by percolation.

Frequently Flooded Areas:

Those flooded areas in the 100-year floodplain designation of the Federal Emergency Management Agency and the National Flood Insurance Program and other frequently flooded areas.

Fish & Wildlife Habitat Conservation Areas:

1. Documented areas with the presence of endangered, threatened and sensitive species.
2. Habitats and species of local importance.
3. Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish or wildlife habitat.
4. Natural fish bearing waters of the state.
5. Lakes, ponds, streams, and rivers planted with game fish by a government or tribal entity.
- F. State natural area preserves and natural resource conservation areas.

Geologically Hazardous Areas:

An area that is not suited for residential, commercial, or industrial development because of its susceptibility to erosion, sliding, earthquakes or other geological events hazardous to the public health or safety. Projects proposing to locate in such areas will be required to meet engineering safety standards.

Natural Resources Goals & Policies

Goal 1.1: Support agriculture as an important component of the County's economy.

Policy 1.1 - Farmers and ranchers perform important functions. This plan encourages agriculture and agricultural support uses on traditional and operational farm land - promoting flexibility to allow farm and ranch related economic activity, including tourism, hunting (including preserves), fishing, limited mineral extraction and renewable energy production.

Policy 1.2 - Discourage incompatible uses by limiting or restricting uses in rural agricultural areas that are incompatible with farming, ranching and low density development. Large industries and businesses, related structures and high density residential subdivisions should be directed to more suitable areas.

Policy 1.3 - Support programs that promote consumption of local agricultural products and increase production of related crops and businesses. Lincoln County will support local agricultural activities by encouraging and promoting community supported agriculture

programs by helping in the development of the highest value of agricultural enterprises by linking of the traditional, market-based economy with related industries of tourism and others that may benefit from our location, weather, etc., (e.g. vineyards, bio-grasses for fuel, etc.)

Policy 1.4 - Recognize multiple benefits of agriculture. Agricultural lands offer multiple values to our communities including, not only food production, but aquifer recharge, wildlife habitat and migration and potential for renewable energy production.

Policy 1.5 - Avoid residential impacts on agriculture by locating intense rural/recreational residential development and subdivisions outside of prime agricultural areas. Where residential development occurs, encourage development to cluster in planned developments with provided services and away from farm activities and sensitive natural areas or hazardous areas.

Goal 1.2: Support local mineral lands as an important component of the County's economy.

Policy 1.6 - Keep ordinances and plans relating to natural resources up to date.

Goal 1.3: Manage the natural environment and resources in a way that protects critical areas & shorelines while providing property owners reasonable use of their land.

Policy 1.7 – Define critical areas consistent with RCW 36.70A.030 or as amended.

Policy 1.8 – Amend the Critical Areas Ordinance as needed based on best available science to adequately protect such areas from development and land use impacts.

Policy 1.9 – Study whether a clearing and grading ordinance might benefit Lincoln County by preventing unnecessary stripping of native vegetation and soil loss.

Policy 1.10 – Encourage the use of northwest native plants in landscaping.

Policy 1.11 – Prevent stream channel erosion and degraded stream habitat by adhering to standards set forth in Ecology's Stormwater Manual for Eastern Washington.

Goal 1.4 – Plan and coordinate land uses, public access and natural resource protection along shorelines of the State in accordance with the State Shoreline Management Act, Lincoln County Shoreline Master Program, Lincoln County Flood Plain Ordinance and Critical Area Ordinance.

Policy 1.12 – Continue to implement the adopted Shoreline Master Program for Lincoln County.

Chapter 2: Land Use Element



Introduction

A land use plan for Lincoln County provides a framework to guide future development in the County. Also, it implements the Comprehensive Plan's goals and policies, including the protection of the County's natural resources, agricultural base, recreational opportunities and economic development. The land use categories should allow the County to continue to be a distinctive and diverse place with a variety of development activities and conservation measures.

The categories also provide some flexibility to develop a mix of uses or for a range of densities that is appropriate adjacent to more urban areas and also in the primary rural areas. The future land use plan provides an avenue of how best to accommodate future growth in the County while protecting its natural resources, economic stability and customs and culture.

Land Use and Growth

This Plan, in part, provides strategies on how orderly development should occur to accommodate new growth and population and also to protect our resources. It is based on the premise that more intense residential growth will be channeled into and adjacent to areas that are already somewhat urbanized in nature and additional services may be available. Conversely, rural areas should maintain many of their non-urban characteristics including lower densities and levels of services. The plan also encourages coordination of planning for open lands and natural resources with public land management agencies. The future land use plan establishes a means that considers infrastructure and transportation plans, captures benefits of development, maintains a high quality of life for residents and minimizes taxpayers' costs to pay for new growth.

Land Use Goals & Policies

Goal 2.1: Direct and manage development in the County that is orderly and fiscally responsible.

Policy 2.1 - Help guide future growth and development by defining appropriate land use types, densities and character in different locations.

Policy 2.2 - Growth and development should share in the expense to provide needed services as a result of said development.

Policy 2.3 - High density type recreational development should locate in areas where private services can be provided and densities sustained with minimum impacts on resources. Conversely, low density rural development should not occur in existing or planned urbanized and recreational communities.

Goal 2.2: Maintain healthy natural areas and connected open lands as part of the land use pattern of Lincoln County and promote resource-sensitive growth.

Policy 2.4 - New residential development in rural areas should cluster when possible to avoid sensitive natural areas and hazardous areas, retain common, connected open lands and be efficient and cost effective for developers to build and for homeowners to maintain.

Policy 2.5 - The County should encourage development that incorporates the principles of sustainable design and that reduces energy, resource consumption and impacts on the environment by;

- a. Minimizing resource consumption, energy and water use and reduce greenhouse gas emissions.
- b. Using renewable energy sources and locally produced materials.
- c. Exploring and encouraging alternatives to toxic pesticides and herbicides.

Policy 2.6 - New development should be designed at appropriate densities to protect aquifer recharge areas and mitigate septic effluent to maintain clean drinking water and protect public health.

Policy 2.7 - Forestry and mining activities should continue with minimal impact to sensitive natural areas and to adjacent properties and consistent with appropriate managing agency guidelines.

Policy 2.8 - Do not allow confined animal feeding operations (CAFOs) or agricultural industries where animals are raised in confined areas that create hazardous discharge conditions for surface and groundwater.

Policy 2.9 - Coordinate with public land agencies to ensure ongoing stewardship of land and additional recreational access to public lands and natural areas.

Goal 2.3: Support continuance of farming and ranching for the production of food, fiber and minerals in rural areas.

Policy 2.10 - In rural areas, buffer farms, ranches and low density residential development from industrial development and high intensity residential uses.

Policy 2.11 - Provide guidelines for development in rural or scenic areas so that the area's character is maintained.

Goal 2.4: Enforce clean-up of existing County land uses and activities that are in violation of health and nuisance codes.

Policy 2.12 – Evaluate the need for a nuisance ordinance.

Land Use Categories

The following sections describe the land use categories for the Lincoln County Comprehensive Plan. The land use map shows the distribution of agricultural, residential, non-residential and mixed-use and public land uses around the County. The land use categories are generally consistent with existing zoning districts. Title 17-Zoning will be used to review proposals for consistency with the intent of this plan and should provide specificity, guidance and predictability to landowners, developers and citizens. The County will review proposals to rezone and development for compliance and consistency with the intent of this Plan.

Agricultural

Agriculture will be the primary use in this category and all other uses will be placed so as to minimize their impact on the surrounding agricultural use. The agricultural category allows agriculture and related uses, residential dwellings and accessory structures, recreation, stables, and other commercial uses compatible with a predominantly rural area. Energy development and other commercial and industrial uses that are compatible with the rural character of the area may be outright permitted or allowed by a conditional use permit. Uses will be reviewed for compliance with existing codes.

The intent of the agricultural areas is to retain commercial agriculture as a viable use. Generally the area consists of agricultural uses for grain production and grazing as well as low intensity single family homes. Most uses rely on individual well(s) and septic systems and are accessed either by county and/or private roads. Many agricultural areas also abut public lands.

Residential

The purpose and intent of the residential district is to establish areas for single and multiple family residential dwellings adjacent to unincorporated and incorporated communities of the county. The intent, where appropriate, is the preservation of a rural agriculturally oriented life style including the keeping of animals for pleasure and profit, retaining low to medium density development and providing for a mixture of residential uses and necessary structures. Please note that Lincoln County has “Right to Farm” and “Code of the West” resolutions aimed to help protect the agricultural industry.

Recreational

Lincoln County has outstanding recreational opportunities and the purpose of this district is to provide and protect land for compatible outdoor recreational and residential uses and those services that usually support these types of uses. Mixed uses may be allowed, pursuant to the requirements of Title 17-Zoning and Title 16-Land Divisions.

Industrial

The industrial district is to preserve land for industries that may create a greater degree of hazard or more annoyance than would be permitted in any other use district. All proposals shall require a site plan and a code compliance review.

Commercial

The purpose of this district is to provide and protect certain areas for the development of those businesses and developments that are commercial and/or recreational in nature and projects approved pursuant to Title 16-Land Divisions, including those that may be utilizing binding site plan approval (e.g. rental cabins, condominiums, townhouses, recreational vehicle parks, airport overlay developments, etc). Also, light industrial uses, which are compatible with surrounding uses, (e.g. airport districts) and largely devoid of nuisance factors, hazards or placing exceptional demands upon public facilities or services may be appropriate within this zone. Technical advances in products, sales distribution, assembling, manufacturing, processing and fabricating have tended to erase the once sharp distinctions between business and commercial and light industrial uses. This zone, especially when associated with the recreational and/or airport district(s), may be suitable for those mixed land uses that are light commercial and/or residential recreation in nature and may require this designation for overall project completion and/or location, pursuant to Title 16 of the Lincoln County code. All proposals shall require a site plan and code compliance review.

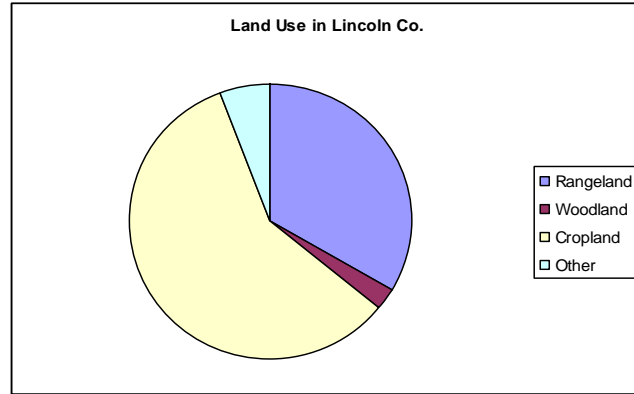
Actual Land Use

Rangeland 765 sq miles (33.4%)

Woodland 55 sq miles (2.4%)

Cropland 1351 sq miles (58.4%)

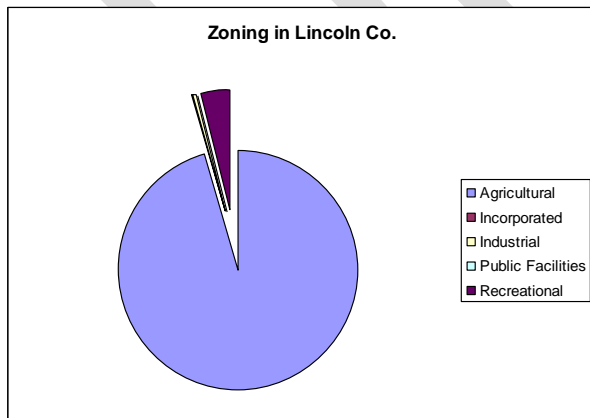
Other, incorporated, recreation, etc...
135 sq mi (5.8%) (Estimated figures)



Zoning

The adoption of the zoning code is in the interests of public health, safety and the general welfare of all the citizens of Lincoln County. It is necessary for the implementation of this comprehensive plan and complies with the provisions and objectives of Chapter 36.70 RCW as now or hereafter amended.

	Acres	Sq Miles	% of County
Agricultural	1,430,361	2,234.939	95.49%
Incorporated	3,694	5.771875	0.25%
Industrial	7,314	11.42813	0.49%
Public Facilities	201	0.314063	0.01%
Recreational	56,398	88.12188	3.76%



Chapter 3: Parks, Trails & Recreation Element



Introduction

While Lincoln County does not currently own or operate any parks, recreation is a large part of the County. Lake Roosevelt National Recreation Area in the northern part of the County and an abundance of state and federal land throughout the rest of the County. The cities and towns within Lincoln County also provide parks that are utilized by county residents and visitors.

Parks, Trails, & Recreation Goals & Policies

Goal 3.1: Encourage public and private recreational opportunities.

Policy 3.1 - Support the National Park Service, by ensuring new development along Lake Roosevelt National Recreation Area is consistent with county codes and does not encroach upon the National Park boundary.

Policy 3.2 – Work with State and Federal agencies to keep public land available for everyone’s enjoyment.

Goal 3.2: Promote community pride by identifying and mapping distinctive areas, sites, structures and objects that have historic, cultural, architectural and archaeological significance.

Policy 3.3 - Encourage preservation and enhancement of identified distinctive areas, sites, structures and objects of historic, cultural, architectural and archaeological significance.

Chapter 4: Transportation & Circulation Element



Introduction

This element of the Lincoln County Comprehensive Plan is required by the The Planning Enabling Act (RCW 36.70). It consists of the general location, alignment and extent of major thoroughfares, major transportation routes, trunk utility lines, and major terminal facilities, all of which shall be correlated with the land use element. These are illustrated on the circulation map.

A thorough transportation plan, describing the transportation system as it exists today as well as the needs for the next 20 years, is a vital component. Lincoln County values the role of effective transportation and utility systems (including associated facilities) when serving the county in the operation and movement of people, equipment, materials, livestock and resource products.

Lincoln County consists of 2,311 square miles and is located in Eastern Washington. There are eight (8) state highways and one (1) interstate that cross Lincoln County. Interstate 90 travels approximately 16 miles across the south eastern corner of the county, near Sprague, WA. State Route 2 runs east-west through the northern portion of the county, connecting Almira, Wilbur, Creston, Davenport & Reardan. State Route 21 runs north-south from Odessa to Lake Roosevelt thru Wilbur, continuing across the river via a WSDOT ferry at Keller Ferry. State Route 174 heads northwest from Wilbur up to Grand Coulee Dam. State Route 25 heads north at Davenport and supports a large portion of growth in Lincoln County at Seven Bays and Deer Meadows; as well as providing access to Fort Spokane and Two Rivers Casino and Resort. Highway 231 runs north-south from Sprague to the northern boundary at Long Lake. State Route 28 runs from Davenport thru Harrington and Odessa and then into Grant County, seeing a lot of agricultural traffic. The last highway serving Lincoln County is State Route 23 that runs north-south between Harrington and Sprague and then into Whitman County, ultimately connecting with Highway 195.

Transportation & Circulation Goals & Policies

Goal 4.1: To provide for safe utilization of the transportation network.

Policy 4.1 – Seek mitigation of existing and anticipated safety issues within the transportation network at the time of development proposal review.

Policy 4.2 – Encourage inclusion of secondary access routes for emergency vehicles within development proposals.

Policy 4.3 – Evaluate development of a Lincoln County Private Roadway Ordinance to ensure adequate provisions for public health, safety and welfare through roadway improvements that match density of development.

Policy 4.4: Decrease hazards where bicycle & pedestrian traffic uses county roadways.

Policy 4.5: Coordinate with communities to eliminate hazardous road situations.

Policy 4.6 - Attempt to provide turnouts for scenic, recreational and historic sites and encourage the State to do the same on state highways.

Goal 4.2: Provide residents and businesses efficient access to goods and services.

Policy 4.7 - Support the railroad transportation network that best serves the agricultural area.

Policy 4.8 – Evaluate the need for mass transportation.

Policy 4.9 - Support public transportation systems for the elderly and handicapped.

Policy 4.10 - Support up-dating of the highway and road system that supports the agricultural area.

Policy 4.11 - Coordinate with county, state and federal agencies on road proposals.

Goal 4.3: Balance new transportation needs with environmental preservation.

Policy 4.12 - Encourage compliance with roadside weed control standards.

Policy 4.13 - When right-of-ways are abandoned, consideration shall be given to returning them to their natural state unless adjacent landowners request otherwise.

Policy 4.14 – Utilize mitigation measures to minimize unavoidable adverse impacts of transportation improvements.

Goal 4.5: Identify the current and future transportation needs of Lincoln County.

Policy 4.15 - Schedule meetings with agricultural, business, and citizen groups in order to understand their transportation needs and to reflect these needs in the county's transportation planning.

Policy 4.16 - Receive input from citizens at reviews of the county's six-year construction program.

Transportation System Concerns

As Lincoln County continues to develop, transportation related issues will join the many concerns stemming from this additional development. Increasing amounts of traffic will focus attention on issues which include:

- Impacts of new development on existing county roads. By considering these issues associated with growth in developing future transportation policies and plans, the County can take a proactive stance in anticipating and mitigating these problems.
- Non-motorized user safety
 - Safety of pedestrians in cities and towns where state routes transect.
 - Safety of pedestrians, bicyclists, equestrians, etc. on rural county roads.

Analysis of Existing Transportation Network

This section of the plan presents an inventory of the existing transportation system, and begins to analyze current and projected needs. The inventory and analysis of services and facilities are intended to provide an assessment of the capability of the existing system to meet existing needs, as well as to correlate system needs with estimates of projected land uses and growth in Lincoln County.

Roads throughout Lincoln County are generally paved, graveled, or surfaced with native materials, most have little or no shoulder, and the majority are without road mile markers. Stop signs regulate traffic at major intersections; there is only one flashing caution light and it is in the Town of Davenport at the intersection of SR 2 and SR 28.

Transit Service

In Lincoln County, the primary mode of transportation is the automobile. However, there is limited private transit service available between Okanogan County, Coulee Dam, Davenport and Spokane and points in-between.

Pedestrian Circulation

Similar to many small towns, pedestrian facilities are limited within the communities of Lincoln County due to its rural character.

Bicycle Routes

The Scenic roads in Lincoln County are frequently utilized by bicycle touring groups and clubs. However, some of these routes are dangerous with winding roadways and poor visibility, particularly during peak weekday commuting periods.

At this time, there are no projections for the number of bicyclists, hikers, horseback riders or other trail / road users who use and enjoy the scenic roads of Lincoln County.

Emergency Services

Lincoln County residents are served by well trained and prompt EMT and fire response units from Lincoln County communities, and the Department of Natural Resources.

Miscellaneous Services

Lincoln County is served by many small airstrips.

Rural and County-wide Level of Service (LOS)

Background

Level of service (LOS) is a multi-dimensional measurement of the quality of service provided by the existing transportation system. It can be described by one or more factors, such as travel times, levels of congestion, volume of use compared to system capacity, frequency of service, comfort, and convenience or safety.

The Growth Management Act requires the establishment of a level of service standard as a gauge for evaluating the performance of the existing transportation network, including roads and transit. It is also used to determine whether transportation improvements or transportation services will be available to serve proposed development at the time of development or within six years. This requirement is called “concurrency”. If services which will operate at the established level of service standard will not be concurrent with a proposed development, either financing for the improvement must be expedited or the development cannot be granted approval. Level of service standards are also used in the establishment of traffic impact mitigation fees in other counties.

Finally the level of service standards are used as a tool in the programming of transportation improvement funds to determine priorities between needs.

Determining Existing Level of Service - Roadways

The method that is used throughout the United States is one established by the Transportation Research Board. It uses a measure called “Level of Service” (LOS) that allows for consistent comparison among alternative transportation options. Although LOS is quantitative, it is also a qualitative measure that examines how the roadway operates and how drivers perceive these conditions. It is related to the physical characteristics of the highway and the operating characteristics that can occur when the highway supports different traffic volumes. It generally describes these characteristics in terms of such factors as speed, delay at intersections, freedom to maneuver, traffic interruptions, driver comfort and convenience, and safety.

The following provides general definitions for level of service (LOS) categories. Six levels of service are defined. Each level is given a letter designation from A to F, with LOS A representing the best operating condition and LOS F the worst.

Level of Service Criteria for Two-Lane Highways

Level of Service	General Operating Conditions
A	Describes completely free-flow conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway and by driver preferences. Maneuverability within the traffic stream is good. Minor disruptions to flow are easily absorbed without a change in travel speed.
B	Describes free-flow conditions, although the presence of other vehicles becomes noticeable. Average travel speeds are the same as in LOS 'A', but drivers have slightly less freedom to maneuver. In simple words, it can be defined as "reasonably free flow traffic".
C	The influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream is clearly affected by other vehicles. Minor disruptions in traffic stream can cause serious local deterioration in service, and queues will form behind any significant traffic disruption. LOS 'C' can be defined as a "stable flow condition".
D	The ability to maneuver is severely restricted due to traffic congestion. Average travel speed reduces by the increasing volume. Only minor disruptions can be absorbed without extensive queues forming and the service deteriorating. LOS 'D' can be defined as "approaching unstable flow conditions".
E	The traffic operation is at or near capacity, an unstable flow condition, in this LOS. Vehicles will operate with the minimum spacing for maintaining uniform flow. Disruptions cannot be dissipated readily, often causing queues to form and service to deteriorate further. The traffic flow in this LOS can be defined as "unstable flow condition".
F	This LOS represent forced or breakdown flow conditions. This type of traffic occurs when the forecast demand exceeds the computed capacity of a planned facility.

Level of service is used to determine the function of existing transportation systems as well as to design for the proper sizing of new improvements. The American Association of State Highway and Transportation Officials (AASHTO) state "As may be fitting to the conditions, the highway agency should strive to provide the highest level of service feasible. In heavily developed sections of metropolitan areas, conditions may necessitate the use of level-of-service D for freeways and arterials, but such use should be rare and at least level-of-service C should be strived for. For some urban and suburban highways, conditions may necessitate the use of level-of-service D."

***An Alternate Methodology for Determining LOS for Rural Roads
(See Attachment A)***

LOS standards for two-lane rural roadways are also significantly different from the LOS standards for two-lane urban roadways. Traditionally, Level of Service is measured based upon the delay experienced when traveling a roadway segment or when going through an intersection. However, in rural areas, the traditional system is ineffective because of the relatively low traffic volumes. This is not to say that the service level expected or needed is satisfactory, rather, the measuring system is inappropriate. Because of this difference, an alternative LOS system was proposed for two-lane rural roadways. The proposed LOS standards for two-lane rural roadway systems rate its *Operation* and its *Condition*. *Operation* LOS rates a roadway in terms of how its characteristics compare with those necessary for it to function as intended. *Condition* LOS rates a roadway in terms of how its physical characteristics compare to those of an ideal facility.

The roadway system in Lincoln County is generally classified as two lane rural roadway. Two lane rural roadway systems operate under uninterrupted flow between points of fixed interruption. They are, however, significantly different in basic operating characteristics from multi-lane facilities. Passing maneuvers must take place in the opposing lane of traffic. Thus, flow in one direction limits and interacts with flow in the other direction. Passing is severely restricted under higher density conditions, and gaps forming in front of slow moving vehicles cannot be as efficiently filled as on a multi-lane facility. Consequently the Volume Capacity ratio ($V/C = \text{rate of flow/capacity}$) can be low. The capacity of a two-lane roadway is described in terms of the total flow in both directions. The capacity of two-lane rural roadways is 2,800 Passenger Car Per Hour (PCPH) under ideal conditions. Ideal conditions for two-lane rural roadways include: design speed 60 mph, twelve-foot minimum lane widths, six-foot minimum shoulder widths, no 'NO PASSING' zones, 50/50 directional distribution, and level terrain. Terrain influences capacity on rural two-lane roadways because of the increased difficulty in passing as terrain affects visibility.

Unsignalized Intersections

Two-way Stop Controlled (TWSC) and All Way Stop Controlled (AWSC) intersections are two types of unsignalized intersections. The 2000 Highway Capacity Manual provides methodologies and models to estimate control delays at unsignalized intersections.

Land Use and Transportation

In 2015, Lincoln County had a population estimate of 10,321. Using the Office of Financial Management Low-Growth scenario, Lincoln County's population is expected to grow slightly.

There are also significant changes occurring in the distribution of population and employment in Lincoln County that affect the future transportation system. The County is seeing a large increase in development in areas near the Lake Roosevelt area. This type of new land use will make serious new transportation demands away from the traditional agricultural based demands.

Lincoln County's comprehensive plan contains the County's long-range land use plan, which provides direction for development in the County. It establishes the County's goals, and regulations. The purpose of this comprehensive plan is to translate community values and goals into a framework for specific decisions on growth, land use, and public facilities and services. This functional plan provides detailed information for the provision of the County transportation facilities that carry out the policies of the comprehensive plan. The land use and transportation elements of the comprehensive plan will work together to support and carry out the policies adopted by the County to guide future development and provision of public services. These plans are implemented through the development regulations.

Planned and Programmed Improvements

Each year the County files a six-year road plan for road improvements with the State. The six year road plan contains the maximum number of projects the County can reasonably expect to finance and complete. They are listed in order of priority to portray a true needs list. The most critical projects and those that are eligible for joint financing with the State Department of Transportation stand a better chance of being moved into construction. The currently adopted or amended Six Year Transportation Improvement Program is hereby incorporated by reference.

Potential Funding Sources

SAFETEA-LU (FHWA) Funds These funds are made available from the Federal Transportation Program, and Fixing America's Surface Transportation Act (FAST).

Private Contributions These are amounts contributed by the private sector to the cost of certain County projects.

Public Works Trust Fund Loan These funds are made available through a low interest loan program instituted by the State of Washington to assist in financing repairs/improvements required to maintain major public facilities, providing the county have met the requirements of the program.

Transportation Impact Fees These fees are assessed to developers to provide a portion of the funding for reasonable and necessary off-site transportation improvements to mitigate the cumulative impacts of growth and development in the planning area.

Freight Mobility Strategic Investment Board (FMSIB) In 1996, the Legislative Transportation Committee (LTC) designated the Freight Mobility Advisory Committee (FMAC) to analyze the state's freight mobility needs, identify high-priority freight transportation projects, and recommend policy to the legislature. The FMAC recommended that the state take the lead in implementing a freight mobility transportation program that would form funding partnerships among all the interested parties for improvements statewide along strategic freight corridors.

County Road Administration Board (CRAB) Rural Arterial Program These revenues represent a contribution from the Motor Vehicle Fuel Tax to specific County projects focusing on haul routes in rural areas. Funding is provided by CRAB Rural Arterial Program.

County Arterial Preservation Program (CAPP) In 1990, the legislature established the County Arterial Preservation Program (CAPP) to assist in funding preservation of county arterial pavements. CAPP provides some \$12+ million per year to counties for a program similar to WSDOT's pavement preservation program.

Local Improvement District & Others These programs can be established within the County to help with individual projects.

Transportation Benefit Districts (TBDs) Similar in basic intent to the RID is the Transportation Benefit District or TBD. The TBD was authorized in 1987 and is codified as RCW 36.73. The TBD is an independent benefit district (and taxing authority) involving both public and private participation as well as allowing for the inclusion of both the WSDOT and cities. Due to the size and complexities of forming the TBD, defining the district, determining both the specific projects and the benefits, and receiving general approval from all the likely participants a TBD has the potential to be a very powerful funding source, if all the hurdles can be overcome.

Local Option Transportation Taxes In 1990, the legislature authorized several transportation taxes that can be implemented at the option of local government. Codified in RCW 82.80, the taxes available to counties are the vehicle license fee, the commercial parking tax, and a local motor vehicle fuel tax. There is the stipulation that the revenues generated must be used for general transportation purposes that are the result of a formalized planning, coordination, and programming process. They cannot be used to supplant existing transportation revenues.

Revenues are collected by the state treasurer and are shared with incorporated cities within the county according to population, with the unincorporated population multiplied by a factor of 1.5 for the calculation.

The three local option transportation taxes available to counties are:

- **Vehicle License Fee (VLF):** [RCW 82.80.020] This is the simplest tax to implement, requiring no prior voter approval although it is subject to referendum. The maximum fee is \$15 per year per vehicle with exemptions authorized for elderly, low income, and disabled people.
- **Local Motor Vehicle Fuel Tax:** [RCW 82.80.010] This tax, which can total ten percent of the statewide rate (currently at 28 cents per gallon), requires prior voter approval. While this tax could generate significant revenues in some counties, it is the most politically volatile.
- **Commercial Parking Tax:** [RCW 82.80.030] This tax is levied on parking slots for which a fee is paid. It requires no voter approval and, if enacted by a county, applies only to unincorporated areas. Unlike the prior two local options, all revenues generated in unincorporated areas are retained by the county

Each of these potential funding sources have requirements and restrictions the county would need to address prior to taking advantage of the particular program.

Recommended Road Plan

Road system improvements may be required to correspond to the intensity and location of residential, commercial and industrial development. The projected growth and development for Lincoln County requires that a number of the roads and State Routes be upgraded to provide a continued satisfactory level of traffic service. A number of roads need to be widened, and straightened. The maintenance of roads should be taken into consideration as part of the priority process.

Needs Identification

Identification of needs begins with an accurate inventory of transportation system components. Once an inventory is in hand, the condition and performance of the system can be determined using generally accepted methods. Various Management Systems are available for counties to use in evaluating both condition and performance. Systems of primary interest to counties include:

Pavement Management

A pavement management system (PMS) is a systematic method used to manage the preservation, rehabilitation, and maintenance of paved road systems by analyzing pavement life cycles; to assess overall system performance and costs; and to determine the alternative strategies and costs necessary to prevent significant road deterioration. A key element of an effective PMS is its ability to provide pavement preservation alternatives based upon a predictive pavement deterioration model. WAC 136-70 requires all counties to use a PMS to “guide the pavement preservation and rehabilitation activities on all county paved arterial roads”. Counties must a computer-based PMS that meets the requirements of WAC 136-70-040. The condition data obtained must be provided to CRAB, which has responsibility for maintaining the statewide pavement condition data file, organized by county. Use of a PMS is a Standard of Good Practice and is required to maintain eligibility for CAPP funds.

Bridge Management

Bridges of many kinds are an integral part of every county road system. The safety and adequacy of these bridges is of vital importance to the traveling public. A program of regular periodic inspection and reporting is necessary to fully inform each county legislative authority about the condition and adequacy of all bridges. WAC 136-20-020 requires that the county engineer “have available in his or her office a complete inventory of all bridges on the county road system”. The county engineer is responsible for all routine and special inspections of all bridges on the county road system in accordance with the National Bridge Inspection Standards (NBIS) as promulgated and periodically revised by WSDOT H&LP and FHWA. Inspection information is to be forwarded to WSDOT annually.

Maintenance Management

Maintenance management is a method of utilizing resources to accomplish a predetermined level of service for road assets. Formal maintenance management includes the primary management functions of planning, organizing, directing and controlling. A maintenance management system (MMS) can be described as a systematic process to manage a maintenance program. Another way of describing maintenance management—a systematic work management process that applies good common sense to help people work together to improve maintenance operations.

Priority Programming

Priority Programming is the development and application of techniques designed to rank any array of potential projects in order of importance to serve as a guide in assisting a county legislative authority in the formulation of road programs and the distribution of limited

resources. WAC 136-14-030 requires each County Engineer to “develop a priority programming process tailored to meet the overall roadway system development policy” determined by the county legislative authority. While each county may develop its own process, all processes must include consideration of the following:

1. Traffic volumes;
2. Roadway condition;
3. Geometrics;
4. Safety and accident history; and
5. Matters of significance local importance.

A successful priority programming process must be clearly defined and will be documented so that the general public and private investors can easily understand it. Public input and review should be encouraged, with the goal of obtaining public consensus on the priority array. In general, the process should include:

- Systematic identification, evaluation, and prioritization of problems;
- Broad review of recommended solutions; and
- Consistent incorporation of results into transportation programs and budgets.

Six-Year Transportation Improvement Program (TIP)

For more than thirty years, cities and counties have been required to prepare, adopt, and submit ‘long-range’ advance road and bridge construction programs. For many years, these programs have been required to span a six-year period. Six-year programs must be adopted by the county legislative authority and a copy of the adopted program must be submitted to WSDOT, CRAB, and – for counties containing urban areas – to TIB. [RCW 36.81.121-122] The six-year program must be updated and adopted annually.

TIP and STIP Inclusion

With the passage of ISTEA and following federal transportation acts, the annual and six-year road programs take on an added value. All federal aid projects must be planned and included in a regional Transportation Improvement Program, and ultimately the State Transportation Improvement Program (STIP). Regional planning organizations work with the counties to select and include projects in their TIP for federal funding that are then forwarded for inclusion in the STIP. The plans should all coincide.

Annual Construction Program

The annual road program requirement has been around at least as long as the six-year program requirement. The annual road program is typically the first year of the six-year program with

additional specifics such as priority, work method (contract or agency force construction), and new equipment list. The annual road program must be adopted before the actual road budget is adopted.

Capital Facilities Plans

The Growth Management Act requires participating counties to prepare Capital Facilities Plan (CFP) to ensure that necessary infrastructure is available for planned growth. The CFP must include all county facilities (solid waste, parks, stormwater, sewer, water, buildings, roads, etc.) and consists of not only an inventory of capital facilities but also a forecast of future needs and at least a six-year financing plan. [RCW 36.70A.070] For transportation facilities, the CFP element is essentially an extension of the six-year program requirement.

Capital Facilities Program

The Capital Facilities Program calls for investments in water, sewer, and road facilities. Because of the financial constraint on the County, many of these projects will be funded by Grants, or low interest loans. Through the Department of Community and Economic Trade, the county applies for CDBG grants to assist the county in funding essential facilities. Other grants available to the county are the Centennial Clean Water Fund and federal and state funds.

Roads

Road system improvements are financed through a local match and various state and federal grant programs made available to rural counties.

ATTACHMENT A

CAPACITY DETERMINATION PROCESS

A Level of Service is a designation that describes a range of operating conditions on a particular type of facility. The Transportation Research Board's 2000 Highway Capacity Manual (HCM) defines the Level of Service concept as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers.

The critical point in this definition is the need to define service quality in terms that are perceived by drivers and passengers. Several key measures are used in the 2000 Highway Capacity Manual (HCM) to describe service quality including, speed, travel time, density, and delay.

Level of Service (LOS) standards are quantifiable measures of the public services the County provides to its residents. These standards are used to determine deficiencies that need to be corrected in existing infrastructure and to identify future infrastructure needs. By establishing an acceptable Level of Service, individual elements of systems, such as roadways, can be rated. This rating allows the County to determine what it should do to provide a target Level of Service to its residents.

Level of Service (LOS) for transportation facilities can be defined by capacity. The primary measure of service quality is time delay, with speed and capacity utilization employed as secondary measures. LOS for two lane highways is determined by both mobility and accessibility. The Transportation Research Board's Highway Capacity Manual (HCM) contains a method for estimating the LOS for two lane highways where time delay data is not available. In addition, the HCM defines LOS ratings of A through F for highway segments, intersections, and arterial street segments, based on the volume of traffic and the available capacity of the facility.

The roadway system in Lincoln County is generally classified as two lane rural roadway. Two lane rural roadway systems operate under uninterrupted flow between points of fixed interruption. They are, however, significantly different in basic operating characteristics from multi-lane facilities. Passing maneuvers must take place in the opposing lane of traffic. Thus, flow in one direction limits and interacts with flow in the other direction. Passing is severely restricted under higher density conditions, and gaps forming in front of slow moving vehicles cannot be as efficiently filled as on a multi-lane facility. Consequently the Volume to Capacity ratio (V/C = rate of flow versus capacity) can be low. The capacity of a two-lane roadway is described in terms of the total flow in both directions. Under ideal conditions the capacity of two-lane rural roadways is 2,800 Passenger Cars per Hour (PCPH). Ideal conditions for two-lane rural roadways include: design speed 60 mph, twelve-foot minimum lane widths, six-foot minimum shoulder widths (36 foot overall width), no "NO PASSING" zones, 50/50 directional distribution, maximum grade of five percent and level terrain. Terrain influences capacity on rural two-lane roadways because of the increased difficulty in passing as terrain affects visibility. Traffic mix for ideal conditions two-lane rural includes 0% trucks and 0% RVs.

Beginning with the ideal conditions and applying the defaults for two-lane rural roads as identified by the 2000 Highway Capacity Manual yield more realistic road conditions which include: design speed 50 mph, twelve-foot minimum lane widths, four-foot minimum shoulder widths (32 foot overall width),

twenty percent “NO PASSING” zones, 60/40 directional distribution, maximum grade of five percent and level terrain. Traffic mix default for rural roads is estimated to include 14% trucks and 4% RVs. Applying the Service Flow formula as shown in exhibit A reduces the 2,800 Passenger Car per Hour (PCPH) to a much more manageable 581 PCPH (4,841 ADT), although even this number is very high for Lincoln County roads and well above the 400 ADT threshold for AASHTO’s Low Volume Roads.

Exhibit A

$$SF_i = 2800 * (v/c)_i * f_d * f_w * f_{HV} * f_g.$$

SF_i	Service Flow for a given Level of Service <i>i</i>
$(v/c)_i$	Maximum permissible v/c ratio for LOS <i>i</i> v/c is volume to capacity ratio
f_d	adjustment factor for directional distribution
f_w	adjustment factor for narrow lanes and/or shoulders
f_{HV}	adjustment factor for heavy vehicles
f_g	adjustment factor for grade (DNA to >7% grades)

Formula from Traffic Engineering textbook

Recognizing that few Lincoln County roads will have long stretches of level terrain let alone enough room to place four foot shoulders on both sides of a 24 foot road provides us with a description of what a more optimal Lincoln County road would look like. Applying the same Service Flow formula for the three terrain types for each class of road renders a much more reasonable number for expected capacities for Lincoln County roads as shown in Exhibit B. The computations in Exhibit B

were calculated using factors for a Level of Service B.

Exhibit B	Lincoln County Road Class					
Functional Classification	Access	Major & Minor Collector			Minor Arterial	
Road & Traffic Configuration	09	08	08/07	07	06	Optimal
ADT	All	<150	150-400	>400	>1500	Road
Traffic Mix (Heavy Vehicles):	Default % for rural roads from Highway Capacity Manual					
Trucks	14%	14%	14%	14%	14%	14%
RVs	4%	4%	4%	4%	4%	4%
Buses	0%	0%	0%	0%	0%	0%
Directional Split:	Default % for rural roads from Highway Capacity Manual					
	60/40	60/40	60/40	60/40	60/40	60/40
Terrain:						
Level	X	X	X	X	X	X
Rolling	X	X	X	X	X	X
Mountainous	X	X	X	X	X	X
Lane Width (feet):	9	10	10	11	12	12
Shoulder Width (feet):	1	2	2	4	6	4
No-Pass %	Default % for rural roads from Highway Capacity Manual for terrain type					
Level	20%	20%	20%	20%	20%	20%
Rolling	50%	50%	50%	50%	50%	50%
Mountainous	80%	80%	80%	80%	80%	80%
Design Speed	AASHTO based on terrain type					
Level	30	40	40	50	60	50
Rolling	30	30	30	40	50	50
Mountainous	20	20	20	30	40	40
Maximum Grade	AASHTO based on terrain type					
Level	7	7	7	7	3	5
Rolling	11	9	9	9	5	6
Mountainous	16	12	12	12	8	8
Grade Limiting Factors	Assume Avg Upgrade Speed of 50 on 1 mile grade @ max %. (Does Not Apply for >7%).					
Level	0.88	0.88	0.88	0.88	0.97	0.93
Rolling	NA	NA	NA	NA	0.93	0.91
Mountainous	NA	NA	NA	NA	NA	NA
ESTIMATED CAPACITY (pc/h)(12% of ADT) Peak Hour	Estimated Service Flow (passenger cars per hour(PCPH)) for LOS B					LOS B
Level	50	59	64	96	154	199
Rolling	31	37	40	60	82	106
Mountainous	14	17	18	28	40	46
Estimated Capacity (ADT)	Estimated Capacity					
Level	417	492	533	800	1283	1658
Rolling	258	308	333	500	683	883
Mountainous	117	142	150	233	333	383

ATTACHMENT B

TRIP GENERATION REVIEW

ADT Calculations: (See Exhibit C)

Review the plat of the development permit application to determine the size of the parent parcel, in acres, the number of lots being proposed, the type of structure(s) that exist(s) or is being proposed for each lot. For example: a ten (10) acre parcel with a proposed four (4) lot short plat for single family homes.

Using the Trip Generation Worksheet identify the county road(s) serving the development (1) and the milepost(s) of the approach(es). Enter the preliminary title of the development (2). Enter the size of the parent parcel (3) and the number of lots (4) as shown on the plat. Estimate the average household size (5) and vehicle ownership per household (6). NOTE: The expected primary type of development permit will be short plats of 4 lots or less for single family residences. Typically, an estimated average household size of 3 with an average vehicle ownership of 2.50 per dwelling for a single family residence.

Using Table 3 in the Trip Generation Worksheet identify the land use type (7) (210 Single Family detached) and identify the Daily Trip Rate per Dwelling Unit (D.U.) (8) using the mean of the listed numbers (Mean, Min., Max.).

The indicated Household Size will assist in determining the Adjustment factors for residential type Land Uses which will generate the expected ADT at full build-out. Verify the adjustments by referring to Table 3a and the type of residential structure being proposed for the development.

The data provided in Table 3 and 3a is somewhat dated (1985) and short of spending upwards of \$300 for the latest ITE books or the software to provide the info, comparing the PM Peak Hour total numbers available from the ITE book (8th edition) with the PM Peak Hour data from Table 3 for the basic types of Land Use Lincoln County is liable to run into indicates not much of a change.

PM Peak Hour Trip Rates and ADT:

Dividing the Adjusted Daily Trip Rate by the Daily Trip Rate develops the adjustment factor for the In/Out/Total PM Peak Hour trip rates for the indicated Land Use category(9)(10)(11). Multiply the different rates times the adjustment factor multiplied times the dwelling units or lots in the development yields the PM Peak Hour ADT.

The ITE Trip Generation Rate – PM Peak Hour (8th Edition) for the indicated Land Use lists a Total PM Peak Hour Trip Rate(12), multiply this times the adjustment factor multiplied by the number of lots or dwelling units yields a Total PM Peak Hour ADT.

The Highway Capacity Manual (2000) suggests that the Peak Hour ADT represents 12% of the total ADT. Applying this factor to both Total PM Peak Hour ADTs yields a total ADT very close to the other calculation.

Evaluating ADT Effect on Level of Service (LOS)

Referring to the current estimated capacity for the road(s) serving the development being reviewed enter the data for the road segment containing the development approach(16) and the road segments immediately adjacent both upstream(17) and downstream(15). Enter the current ADT (15a)(16b)(17c), the Estimated Capacity(15d)(16e)(17f). The Current LOS as well as the remaining capacity will be calculated using the projected additional ADT added to the current ADT(16a) and the projected ADT split(13)(14) and added to the current ADT up milepost(17c) and down milepost(15a).

Determination of Mitigation Measures:

In the cases where there is no reserve capacity or insufficient reserve capacity to meet the needs of the proposed development Public Works would be charged with determining what mitigation measures are needed to provide the required capacity. In order to perform the evaluation Public Works staff will need to review the capacity worksheet.

The capacity worksheet identifies a series of geometric features and scores the road segment based on those geometric features. They are as follows:

- Number of Lanes
- Lane Width
- Pavement/Surfacing Type
- Shoulder Surfacing Type
- Shoulder Width
- Terrain Type
- Overall Roadway Width
- Access Points per Mile

Each segment of a road, as defined by the roadlog, is evaluated on the above listed features and subsequently given a score for each feature, the accumulated score is compared to a standard for the function class of the road and an estimated capacity is determined. The current ADT is deducted from the estimated capacity and the remaining capacity is divided by the estimated capacity to develop a Level of Service (LOS) based on the following percentages.

Level of Service (LOS)	
=> 69% of Estimated Capacity	A
=> 59% of Estimated Capacity	B
=> 49% of Estimated Capacity	C
=> 39% of Estimated Capacity	D
=> 29% of Estimated Capacity	E
< 29% of Estimated Capacity	F

In order to determine what improvements may be employed to increase the capacity of a road we must look to the list of geometric features that are used to determine capacity and identify the ones that can be

modified to increase capacity. The primary features that can be manipulated to increase the capacity of the roadway are as follows:

Number of Lanes	Lane Width
Surfacing Type	Shoulder Surfacing Type
Shoulder Width	Overall Roadway Width

While adding lanes would certainly add capacity, it is not an effective tool for rural two lane roads especially when dealing with the terrain types most common in Lincoln County. For identifying improvements for increasing capacity associated with development permits we will focus primarily on Lane Width, Shoulder Width, and Surface Type of both Lanes and Shoulders.

The following tables represent the geometric feature (and legend) and the points available for differing conditions:

Lane Width (1 lane =0) (in feet)	<7	<=8	<=9	<=10	<=11	<=12	<=14	<=16	Value
	0	4	8	10	12	15	20	28	Points
Surface Type	UNI	GRD	GRV	PCC	BST	ACP	HMA		Value
	2	6	14	16	18	20	20		Points
Shoulder Type	NoShld	Not PV	PV						Value
	0	10	15						Points
Shoulder Width (in feet)	0	1	2	3	>=4	>=6			Value
	0	5	10	15	18	20			Points

B	UNI	Native unimproved material (UNI)
C	GRD	Graded and drained native material (GRD) (natural 2" minus Pit Run)
E	GRV	Improved gravel surface (GRV)
F,I,J	PV	Paved with BST, ACP or HMA, PCC

As can be seen from the tables widening lanes, adding or widening shoulders and paving both lanes and shoulders generates additional points and, depending on the functional class of the roadway, additional capacity.

The level of improvement would have to look at what right-of-way is available, what environmental costs may be incurred in a significant improvement, the estimated cost of the projected improvement, eligibility of the road for outside funding sources, whether or not the project would compete sufficiently well for the available funds, and to what extent should the developer be required to participate.

Exhibit C

Full Build-out Trip Generation Worksheet, ADT and Concurrency Calculation	
Calculate full build-out ADT, Peak Hour & Concurrency Road to be Considered McCullough Road, CR No. 66960 M.P. 1.30 (1)	LOCATION:

Development Size in acres:	<u>135 (3)</u>	Development Size in Lots:	<u>40 (4)</u>
Residential Density =	<u>0.30</u>	dwelling units (d.u.) per acre	
Average Household Size =	<u>2.00 (5)</u>	persons (estimate)	
Average Vehicle Ownership per Household =	<u>1.92 (6)</u>	(estimate)	

ADT Calculations:

Mean Daily Trip Rate:

Table 3 - Land Use Generator	<u>210 Single Family - Detached (7)</u>	Original Use
Daily Trip Rate per Dwelling Unit (d.u.) =	<u>9.73 (8)</u>	(Mean = 10.03; Min. = 4.31; Max. = 21.90)
Land Use Generator		
Daily Trip Rate per Dwelling Unit (d.u.) =		(Mean = X; Min. = X; Max. = X)

Adjustment Factors for Mean Daily Trip Rate:

210 Single Family – Detached	Table 3a -	210 Single Family – Detached	Table 3a
Household Size (1-2) =	<u>-3.40</u>	Household Size (2-3) =	<u>-1.80</u>
Vehicle Ownership (1-2) =	<u>0.00</u>	Vehicle Ownership (>2) =	<u>2.90</u>
Density (d.u./acre) (0-3) (3-5) =	<u>0.00</u>	Density (d.u./acre) (0-3) =	<u>0.00</u>
Total Adjustment =	<u>-3.40</u>	Total Adjustment =	<u>1.10</u>

Assumption(s):

Adjusted Daily Trip Rate =	6.33	Daily Trips per Dwelling Unit	<u>253.2</u>
Adjusted Daily Trip Rate =	0	Daily Trips per Dwelling Unit	0
Estimated Annual Daily Traffic (ADT) at full Build-out = 138 d.u. x 3.12 trips/d.u. = 430.56	253	Estimated ADT (d.u. x Adjusted Daily Trip Rate)	

PM Peak Hour Trip Rate (1985 Data)

Adjustment factor for PM peak hour adjusted daily trip rate		0.65	Adjusted Daily Trip Rate divided by Daily Trip Rate
		Estimated Peak Hour Traffic:	30.384
Land Use 210 Single Family – Detached for PM Peak Hour Inbound/Outbound/Total vehicle trip rates.		PM Peak Hour ADT	ADT
(9) IN	<u>0.64</u>	0.416	16.64
(10) OUT	<u>0.36</u>	0.234	9.36
(11) TOTAL	<u>1.00</u>	0.65	26.0
			216.67

ITE Trip Generation Rate - PM Peak Hour (8th Edition)

Land Use 210 Single Family – Detached per dwelling unit D.U. (12)	<u>1.01</u>	0.6565	26.26	218.83
Land Use		0	0	0

Highway Capacity Manual generally calculates Peak Hour Traffic at 12% of the total ADT, therefore estimated ADT at full build-out.

Assume 90-10 split on exit for projected traffic. (13)(14)

Current Estimated Capacity of County Road:	Current ADT (a,b,c)	ADT Changes due to Development	Estimated Capacity Based on Geometrics (d,e,f)	Remaining Capacity	Resulting LOS	Reserve Capacity LOS D
(15) Co Road No. 6696, M.P. 0.00 to M.P. 1.00	<u>47</u>	228	<u>735</u>	507	<u>A</u>	257
(16) Co Road No. 6696, M.P. 1.00	<u>47</u>	253	<u>735</u>	482	<u>A</u>	257
(17) Co Road No. 6696, M.P. 1.00 to M.P. 1.30	<u>47</u>	25	<u>735</u>	710	<u>A</u>	257
			Adopted LOS Standard	B		

COMMENTS/MITIGATIONS:

While the projected increase in traffic does not detrimentally affect the current Level of Service (LOS) of the roadway based on this evaluation, an increase in traffic of over 670% will affect the serviceability of the roadway, requiring increased maintenance and additional resources in the form of crushed surfacing and possibly road stabilization materials to mitigate the impacts of the increased traffic.

Date: October 2, 2014

Signed: _____
County Engineer

TABLE 3a
ADJUSTMENT FACTORS FOR RESIDENTIAL CHARACTERISTICS

Land Use Generator Description and ITE Code	Mean Daily Trip Rate Per Dwelling Unit	Adjustment Factors ^{1/}								
		Household Size			Vehicle Ownership			Density (D.U./Acre)		
		1-2	2-3	>3	0-1	1-2	>2	0-3	3-5	>5
210. Single Family Detached	10.03	1-2	2-3	>3	0-1	1-2	>2	0-3	3-5	>5
		-3.4	-1.8	0.0	-1.5	0.0	+2.9	0.0	0.0	-0.1
220. Apartments	6.11	1-2	2-3	>3	0-1	1-2	>2	0-15	15-25	>25
		-1.0	+0.9	+2.8	-0.3	+0.2	+1.3	-0.2	0.0	+0.4
230. Condominiums	5.40	1-2	2-3	>3	0-1	1-2	>2	NA	NA	NA
		-0.07	+0.04	+0.15	-1.7	0.0	+3.6			

LAND USE GENERATOR		VEHICLE TRIP RATES IN PEAK HOUR								
DESCRIPTION & ITE CODE	UNITS	AM			PM			PEAK HOUR OF GENERATOR		
		IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
RESIDENTIAL (200)										
S-F Det Hou 210	IDU	0.21	0.54	0.75	0.64	0.36	1.00	0.64	0.36	1.00
	ACRE	0.61	1.50	2.11	1.70	1.03	2.73	1.70	1.03	2.73
Urban	IDU	0.24	0.61	0.84	0.72	0.41	1.13	0.72	0.41	1.13
	ACRE	0.69	1.69	2.37	1.91	1.16	3.07	1.91	1.16	3.07
Suburban	IDU	0.19	0.49	0.68	0.58	0.33	0.90	0.58	0.33	0.90
	ACRE	0.55	1.35	1.91	1.54	0.93	2.47	1.54	0.93	2.47
Rural	IDU	0.20	0.52	0.73	0.62	0.35	0.97	0.62	0.35	0.97
	ACRE	0.59	1.46	2.05	1.65	1.00	2.65	1.65	1.00	2.65
Apartment 220	IDU	0.09	0.46	0.55	0.49	0.22	0.71	0.49	0.22	0.71
	ACRE	0.36	0.90	1.26	1.40	0.81	2.21	1.40	0.81	2.21
Urban	IDU	0.10	0.52	0.62	0.55	0.25	0.80	0.55	0.25	0.80
	ACRE	0.41	1.01	1.42	1.58	0.91	2.49	1.58	0.91	2.49
Suburban	IDU	0.08	0.42	0.50	0.44	0.20	0.64	0.44	0.20	0.64
	ACRE	0.33	0.81	1.14	1.26	0.73	2.00	1.26	0.73	2.00
Rural	IDU	0.09	0.45	0.53	0.48	0.21	0.69	0.48	0.21	0.69
	ACRE	0.35	0.87	1.22	1.36	0.79	2.14	1.36	0.79	2.14
Condomin 230	IDU	0.07	0.37	0.44	0.36	0.18	0.54	0.36	0.18	0.54
	ACRE	0.76	4.50	5.26	4.41	2.16	6.57	4.66	2.52	7.18
Urban	IDU	0.08	0.42	0.50	0.41	0.20	0.61	0.41	0.20	0.61
	ACRE	0.86	5.06	5.92	4.96	2.43	7.39	5.24	2.84	8.08
Suburban	IDU	0.06	0.33	0.40	0.33	0.16	0.49	0.33	0.16	0.49
	ACRE	0.69	4.06	4.75	3.98	1.95	5.93	4.21	2.28	6.48
Mobile Home 240	IDU	0.05	0.37	0.42	0.38	0.19	0.57	0.38	0.19	0.57
	ACRE	0.59	3.03	3.62	3.10	1.81	4.91	3.23	1.81	5.04
Retire Comm 250	IDU	*	*	0.40	*	*	0.40	*	*	*
Plan Unit Dev 270 (Suburban)	IDU	0.13	0.43	0.56	0.46	0.24	0.70	0.46	0.26	0.72
	ACRE	0.67	2.21	2.88	2.66	1.39	4.05	2.64	1.49	4.13

ATTACHMENT C

Lincoln County Safety Plan

Description of the Systemic Process

The Systemic Safety Project Selection Tool is a cyclical process outlining a series of steps that build on the priorities established in State strategic highway safety plans. The process helps identify the characteristics of locations with severe crashes to support application of safety improvements throughout a roadway system.

The tool builds upon current practices and consists of three elements:

- Element 1: Conducting a systemic safety analysis
- Element 2: Balancing systemic and traditional safety investments
- Element 3: Evaluating the effectiveness of a systemic safety program

FHWA designed the selection tool to be flexible and applicable to a variety of systems, locations, and crash types. The process is meant to be easy to use and straightforward, requiring minimal training and technical assistance. FHWA designed the tool's outputs to be understandable to both program managers and project development engineers who may or may not have been trained in techniques for traffic safety analysis. Further, FHWA designed the tool to be adaptable, so individual agencies can modify the tool's data requirements depending on the availability of local data.

Lincoln County applied the systemic process to determine that road departure crashes (crash type) were the most common along county collector roads, although the local access roads were not unrepresented. According to county data, there are 662.76 miles (1,069 kilometers) of county minor arterial and collector roads. In addition, county data indicates that 91.7 percent of severe crashes occurred along horizontal curves. The County has identified numerous potential risk factors but ultimately selected nine for the risk assessment: functional class, traffic volume, pavement and shoulder width, posted speed limit, presence of horizontal curves (represented by AASHTO terrain type), surface type, section corners (90 degree corner at section corners with and without intersections) and truck route. A total of 9.0 Risk Points are available for an individual segment.

These risk factors are used to perform an initial sort of high risk road segments then it is combined with the actual collision information to further prioritize road segments for review and identification of appropriate countermeasures.

Reducing the above data down to just a few priorities on which to focus limited funding, we can identify that the priority locations should consist of road segments with 50 MPH Speed Limit, Clear Zone Infringement, and Horizontal Curves,

After consultation with the WSDOT Strategic Highway Safety Plan, Target Zero, countermeasures to consider addressing the above criteria would consist of the following:

- A. Reduce the number of vehicles leaving the roadway:
 1. Improve roadway signing and shoulder delineation in curves
 - a. Curve Warning Signs –
 - i. Advance Warning Signs

- ii. Chevrons
 - iii. Advisory Speed Plates
 - b. Flex Guideposts
 - 2. Increase road surface skid resistance using enhanced friction surface treatments
 - 3. Install/replace roadside safety hardware
 - 4. Improve roadway geometry
 - a. widen/add shoulders
 - b. correct super-elevation
- B. Minimize the consequences of leaving the roadway
 - 1. Widen the clear zone
 - 2. Design safer slopes and ditches
 - 3. Remove/relocate objects in hazardous locations in the clear zone
- C. Locate and inventory fixed objects inside the clear zone to support development of programs and projects to reduce the number and severity of run-off-the-road collisions.

The order of the countermeasures available was modified slightly from the order in the WSDOT SHSP-Target Zero based on the costs involved in widening shoulders and flattening slopes in the areas that accumulate the most risk.

Application of the increased advance warning signs, chevrons and advisory speed plates was determined to be necessary when the advisory speed, as set by the ball-bank method, required a reduction of the posted speed by at least 15 MPH.

Locations for consideration of the application of improve surface traction by way of an enhanced friction surface treatment were evaluated based on the latest Pavement Condition Rating from the county's PMS data, any PSC of less than 90 was considered as possible, if the PSC dropped to below 60 the treatment was considered as required.

	Rd No.	Rd Name	BMP	EMP	Length	Curves	@500'/C	FFC	Surfacing	Risk Pts	Priority	
	Priority 1: Upgrade Curve Warning Signs / 7.0 Risk Point locations / Cost info \$\$\$											
1	95100	MILES CRESTON ROAD #95100	7.77	8.48	0.71	2.00	0.19	6	BST	7.00	7.00	
	Priority 2: Upgrade Curve Warning Signs / 6.5 Risk Point locations / Cost info \$\$\$											
2	95100	MILES CRESTON ROAD #95100	5.16	7.77	2.61	3.00	0.28	6	BST	6.50	8.50	
2	92310	DUCK LAKE ROAD #92310	10.08	10.68	0.60	1.00	0.09	7	BST	6.50	7.50	
2	95100	MILES CRESTON ROAD #95100	8.48	8.66	0.18	1.00	0.09	6	BST	6.50	6.50	
	Priority 3: Upgrade Curve Warning Signs / 6.0 Risk Point locations / Cost info \$\$\$											
3	95100	MILES CRESTON ROAD #95100	0.03	3.11	3.08	4.00	0.38	6	BST	6.00	10.00	
3	96190	OMANS ROAD #96190	13.58	13.63	0.05	1.00	0.09	7	BST	6.00	8.00	
3	55540	HAWK CREEK ROAD #55540	2.09	3.50	1.41	1.00	0.09	7	BST	6.00	6.00	
3	91150	KINER ROAD #91150	2.98	3.95	0.97	2.00	0.19	7	BST	6.00	6.00	
3	91150	KINER ROAD #91150	3.95	5.00	1.05	1.00	0.09	7	BST	6.00	6.00	
3	91150	KINER ROAD #91150	5.00	5.93	0.93	1.00	0.09	7	BST	6.00	6.00	
3	91150	KINER ROAD #91150	5.93	5.99	0.06	1.00	0.09	7	BST	6.00	6.00	
3	92310	DUCK LAKE ROAD #92310	2.96	3.11	0.15	1.00	0.09	7	BST	6.00	6.00	
3	92310	DUCK LAKE ROAD #92310	3.11	3.99	0.88	1.00	0.09	7	BST	6.00	6.00	
3	92310	DUCK LAKE ROAD #92310	3.99	4.30	0.31	1.00	0.09	7	BST	6.00	6.00	
3	92310	DUCK LAKE ROAD #92310	7.85	9.62	1.77	0.00	0.00	7	BST	6.00	6.00	
3	92310	DUCK LAKE ROAD #92310	10.68	14.51	3.83	0.00	0.00	7	BST	6.00	6.00	
3	94330	OLD COULEE ROAD #94330	12.01	12.15	0.14	1.00	0.09	7	BST	6.00	6.00	
3	94330	OLD COULEE ROAD #94330	13.79	13.96	0.17	0.00	0.00	7	BST	6.00	6.00	
3	94450	SHERMAN ROAD #94450	3.04	5.03	1.99	0.00	0.00	7	BST	6.00	6.00	
	Priority 4: Upgrade Curve Warning Signs / 5.5 Risk Point locations / Cost info \$\$\$											
4	96540	DEVILS GAP ROAD #96540	3.14	4.18	1.04	2.00	0.19	7	BST	5.50	10.50	
4	94330	OLD COULEE ROAD #94430	5.84	7.00	1.16	4.00	0.38	7	BST	5.50	9.50	
4	96430	PORCUPINE BAY ROAD #96430	0.63	2.89	2.26	5.00	0.47	7	BST	5.50	8.50	
4	51190	WELCH CREEK ROAD #51190	0.00	2.20	2.20	2.00	0.19	7	BST	5.50	7.50	
4	93150	SPRAGUE HIGHWAY ROAD #93150	12.80	14.04	1.24	2.00	0.19	7	BST	5.50	7.50	
4	93350	WAUKON ROAD #93350	1.94	4.06	2.12	1.00	0.09	7	BST	5.50	6.50	
4	96100	BLUESTEM ROAD #96100	3.34	3.37	0.03	0.00	0.00	7	BST	5.50	6.50	
4	96100	BLUESTEM ROAD #96100	3.54	3.77	0.23	1.00	0.09	7	BST	5.50	6.50	
4	51190	WELCH CREEK ROAD #51190	2.20	3.09	0.89	1.00	0.09	7	BST	5.50	5.50	
4	51190	WELCH CREEK ROAD #51190	3.09	4.40	1.31	2.00	0.19	7	BST	5.50	5.50	
4	55540	HAWK CREEK ROAD #55540	6.07	7.27	1.20	2.00	0.19	7	GRV	5.50	5.50	
4	57860	HAWK CREEK ROAD #57860	10.79	11.41	0.62	2.00	0.19	7	GRV	5.50	5.50	
4	68310	RIFFE ROAD #68310	0.17	0.42	0.25	1.00	0.09	8	BST	5.50	5.50	
4	68310	RIFFE ROAD #68310	0.42	1.28	0.86	1.00	0.09	8	BST	5.50	5.50	
4	68310	RIFFE ROAD #68310	1.28	2.35	1.07	2.00	0.19	8	BST	5.50	5.50	
4	69770	CRESCENT ROAD #69770	1.29	1.84	0.55	1.00	0.09	7	BST	5.50	5.50	

4	69770	CRESCENT ROAD #69770	1.84	2.44	0.60	2.00	0.19	7	BST	5.50	5.50	
4	92310	DUCK LAKE ROAD #92310	0.24	1.46	1.22	2.00	0.19	7	ACP	5.50	5.50	
4	92310	DUCK LAKE ROAD #92310	10.00	10.08	0.08	1.00	0.09	7	BST	5.50	5.50	
4	92310	DUCK LAKE ROAD #92310	14.51	14.67	0.16	0.00	0.00	7	BST	5.50	5.50	
4	92400	COFFEE POT ROAD #92400	6.38	6.48	0.10	1.00	0.09	7	BST	5.50	5.50	
4	92550	ROCKLYN ROAD #92550	8.18	8.70	0.52	2.00	0.19	7	BST	5.50	5.50	
4	93150	SPRAGUE HIGHWAY ROAD #93150	12.45	12.80	0.35	1.00	0.09	7	BST	5.50	5.50	
4	93150	SPRAGUE HIGHWAY ROAD #93150	14.82	14.99	0.17	1.00	0.09	7	ACP	5.50	5.50	
4	93150	SPRAGUE HIGHWAY ROAD #93150	14.99	15.12	0.13	0.00	0.00	7	ACP	5.50	5.50	
4	93350	WAUKON ROAD #93350	5.00	5.86	0.86	2.00	0.19	7	BST	5.50	5.50	
4	93350	WAUKON ROAD #93350	7.17	8.46	1.29	2.00	0.19	7	BST	5.50	5.50	
4	93350	WAUKON ROAD #93350	9.40	10.02	0.62	2.00	0.19	7	BST	5.50	5.50	
4	96100	BLUESTEM ROAD #96100	2.21	3.22	1.01	2.00	0.19	7	BST	5.50	5.50	
4	96100	BLUESTEM ROAD #96100	3.22	3.34	0.12	1.00	0.09	7	BST	5.50	5.50	
4	96100	BLUESTEM ROAD #96100	3.37	3.46	0.09	0.00	0.00	7	BST	5.50	5.50	
4	96100	BLUESTEM ROAD #96100	3.46	3.54	0.08	0.00	0.00	7	BST	5.50	5.50	
4	96100	BLUESTEM ROAD #96100	12.52	12.59	0.07	2.00	0.19	7	BST	5.50	5.50	
4	96100	BLUESTEM ROAD #96100	12.59	12.66	0.07	1.00	0.09	7	BST	5.50	5.50	
4	96100	BLUESTEM ROAD #96100	12.66	12.78	0.12	1.00	0.09	7	BST	5.50	5.50	
4	96100	BLUESTEM ROAD #96100	12.78	12.85	0.07	1.00	0.09	7	BST	5.50	5.50	
4	96190	LIMESTONE ROAD #96190	0.10	1.67	1.57	4.00	0.38	7	GRV	5.50	5.50	
4	96190	LIMESTONE ROAD #96190	1.73	4.17	2.44	2.00	0.19	7	GRV	5.50	5.50	
4	96190	OLSON ROAD #96190	5.34	5.52	0.18	1.00	0.09	7	GRV	5.50	5.50	
4	96190	OMANS ROAD #96190	8.68	9.33	0.65	1.00	0.09	7	GRV	5.50	5.50	
4	96190	OMANS ROAD #96190	9.52	10.02	0.50	0.00	0.00	7	BST	5.50	5.50	
4	96190	OMANS ROAD #96190	10.02	11.60	1.58	2.00	0.19	7	BST	5.50	5.50	
4	96310	MONDOVI ROAD #96310	2.14	2.36	0.22	0.00	0.00	7	BST	5.50	5.50	
4	96430	PORCUPINE BAY ROAD #96430	0.07	0.63	0.56	0.00	0.00	7	BST	5.50	5.50	
4	96540	LITTLE FALLS ROAD #96540	0.74	1.21	0.47	1.00	0.09	7	BST	5.50	5.50	
		Priority 5: Enhanced Friction Surface Treatments / 7.0 Risk Point locations / Cost info \$\$\$										PSC
		Priority 6: Enhanced Friction Surface Treatments / 6.5 Risk Point locations / Cost info \$\$\$										
6	92310	DUCK LAKE ROAD #92310	10.08	10.68	0.60	1.00	0.09	7	BST	6.50	7.50	40
		Priority 7: Upgrade Curve Warning Signs / 5.0 Risk Point locations / Cost info \$\$\$										
7	93350	WAUKON ROAD #93350	14.45	15.48	1.03	1.00	0.09	7	BST	5.00	12.00	
7	94450	SHERMAN ROAD #94450	1.97	2.96	0.99	2.00	0.19	7	BST	5.00	11.00	
7	94590	REDWINE CANYON ROAD #94590	3.23	4.88	1.65	4.00	0.38	7	BST	5.00	8.00	
7	96540	LITTLE FALLS ROAD #96540	0.00	0.74	0.74	2.00	0.19	7	BST	5.00	6.00	
7	13100	SCHLIMMER ROAD #13100	8.53	9.25	0.72	2.00	0.19	7	BST	5.00	5.00	
7	54710	GUNNING ROAD #54710	3.26	4.27	1.01	1.00	0.09	7	BST	5.00	5.00	
7	57860	HAWK CREEK ROAD #57860	10.23	10.79	0.56	3.00	0.28	7	GRV	5.00	5.00	
7	91150	KINER ROAD #91150	0.00	0.79	0.79	1.00	0.09	7	BST	5.00	5.00	

7	91150	KINER ROAD #91150	0.79	0.89	0.10	0.00	0.00	7	BST	5.00	5.00	
7	91150	KINER ROAD #91150	0.89	1.79	0.90	2.00	0.19	7	BST	5.00	5.00	
7	91150	KINER ROAD #91150	5.99	6.95	0.96	1.00	0.09	7	BST	5.00	5.00	
7	91150	KINER ROAD #91150	16.59	16.70	0.11	0.00	0.00	7	BST	5.00	5.00	
7	91150	KINER ROAD #91150	16.70	16.85	0.15	1.00	0.09	7	BST	5.00	5.00	
7	92100	KING RANCH ROAD #92100	1.15	2.94	1.79	1.00	0.09	7	BST	5.00	5.00	
7	92400	COFFEE POT ROAD #92400	12.97	13.08	0.11	0.00	0.00	7	BST	5.00	5.00	
7	92400	COFFEE POT ROAD #92400	13.08	13.92	0.84	1.00	0.09	7	BST	5.00	5.00	
7	92400	COFFEE POT ROAD #92400	13.92	14.30	0.38	0.00	0.00	7	BST	5.00	5.00	
7	92400	COFFEE POT ROAD #92400	14.30	15.07	0.77	1.00	0.09	7	BST	5.00	5.00	
7	93350	WAUKON ROAD #93350	13.33	14.45	1.12	1.00	0.09	7	BST	5.00	5.00	
7	94100	MAXWELL ROAD #94100	0.67	1.39	0.72	1.00	0.09	7	BST	5.00	5.00	
7	94450	SHERMAN ROAD #94450	2.96	3.04	0.08	1.00	0.09	7	BST	5.00	5.00	
7	94450	SHERMAN ROAD #94450	7.99	8.47	0.48	1.00	0.09	7	BST	5.00	5.00	
7	94590	REDWINE CANYON ROAD #94590	4.88	5.14	0.26	2.00	0.19	7	BST	5.00	5.00	
7	96190	LIMESTONE ROAD #96190	1.67	1.73	0.06	1.00	0.09	7	GRV	5.00	5.00	
7	96190	LIMESTONE ROAD #96190	4.17	4.79	0.62	1.00	0.09	7	GRV	5.00	5.00	
7	96190	OMANS ROAD #96190	9.50	9.52	0.02	1.00	0.09	7	GRV	5.00	5.00	
7	96430	PORCUPINE BAY ROAD #96430	2.89	4.07	1.18	2.00	0.19	7	BST	5.00	5.00	
		Priority 8: Enhanced Friction Surface Treatments / 6.0 Risk Point locations / Cost info \$\$\$										PSC
8	95100	MILES CRESTON ROAD #95100	0.03	3.11	3.08	4.00	0.38	6	BST	6.00	10.00	41
8	96190	OMANS ROAD #96190	13.58	13.63	0.05	1.00	0.09	7	BST	6.00	8.00	50
8	91150	KINER ROAD #91150	2.98	3.95	0.97	2.00	0.19	7	BST	6.00	6.00	77
	91150	KINER ROAD #91150	3.95	5.00	1.05	2.00	0.19	7	BST	6.00	6.00	81
	91150	KINER ROAD #91150	5.00	5.93	0.93	1.00	0.09	7	BST	6.00	6.00	82
	91150	KINER ROAD #91150	5.93	5.99	0.06	1.00	0.09	7	BST	6.00	6.00	82
8	92310	DUCK LAKE ROAD #92310	2.96	3.11	0.15	1.00	0.09	7	BST	6.00	6.00	38
8	92310	DUCK LAKE ROAD #92310	3.11	3.99	0.88	1.00	0.09	7	BST	6.00	6.00	37
8	92310	DUCK LAKE ROAD #92310	3.99	4.30	0.31	1.00	0.09	7	BST	6.00	6.00	26
8	92310	DUCK LAKE ROAD #92310	7.85	9.62	1.77	0.00	0.00	7	BST	6.00	6.00	0
8	92310	DUCK LAKE ROAD #92310	10.68	14.51	3.83	0.00	0.00	7	BST	6.00	6.00	41
8	94330	OLD COULEE ROAD #94330	12.01	12.15	0.14	1.00	0.09	7	BST	6.00	6.00	69
8	94330	OLD COULEE ROAD #94330	13.79	13.96	0.17	0.00	0.00	7	BST	6.00	6.00	59
		Priority 9: Guardrail / 7.0 Risk Point locations / Cost info \$\$\$										
9	95100	MILES CRESTON ROAD #95100	7.77	8.48	0.71	2.00	0.19	6	BST	7.00	7.00	
		Priority 10: Enhanced Friction Surface Treatments / 5.5 Risk Point locations / Cost info \$\$\$										PSC
	96540	DEVILS GAP ROAD #96540	3.14	4.18	1.04	2.00	0.19	7	BST	5.50	10.50	90
10	94330	OLD COULEE ROAD #94430	5.84	7.00	1.16	4.00	0.38	7	BST	5.50	9.50	55
	96430	PORCUPINE BAY ROAD #96430	0.63	2.89	2.26	5.00	0.47	7	BST	5.50	8.50	89
10	51190	WELCH CREEK ROAD #51190	0.00	2.20	2.20	2.00	0.19	7	BST	5.50	7.50	70
10	93150	SPRAGUE HIGHWAY ROAD #93150	12.80	14.04	1.24	2.00	0.19	7	BST	5.50	7.50	74

	93350	WAUKON ROAD #93350	1.94	4.06	2.12	1.00	0.09	7	BST	5.50	6.50	82
	96100	BLUESTEM ROAD #96100	3.34	3.37	0.03	0.00	0.00	7	BST	5.50	6.50	88
	96100	BLUESTEM ROAD #96100	3.54	3.77	0.23	0.00	0.00	7	BST	5.50	6.50	88
10	51190	WELCH CREEK ROAD #51190	2.20	3.09	0.89	1.00	0.09	7	BST	5.50	5.50	80
10	51190	WELCH CREEK ROAD #51190	3.09	4.40	1.31	2.00	0.19	7	BST	5.50	5.50	75
10	68310	RIFFE ROAD #68310	0.17	0.42	0.25	1.00	0.09	8	BST	5.50	5.50	72
10	68310	RIFFE ROAD #68310	0.42	1.28	0.86	1.00	0.09	8	BST	5.50	5.50	71
10	68310	RIFFE ROAD #68310	1.28	2.35	1.07	2.00	0.19	8	BST	5.50	5.50	70
10	69770	CRESCENT ROAD #69770	1.29	1.84	0.55	1.00	0.09	7	BST	5.50	5.50	67
10	69770	CRESCENT ROAD #69770	1.84	2.44	0.60	2.00	0.19	7	BST	5.50	5.50	71
10	92310	DUCK LAKE ROAD #92310	0.24	1.46	1.22	2.00	0.19	7	ACP	5.50	5.50	50
10	92310	DUCK LAKE ROAD #92310	10.00	10.08	0.08	1.00	0.09	7	BST	5.50	5.50	40
10	92310	DUCK LAKE ROAD #92310	14.51	14.67	0.16	0.00	0.00	7	BST	5.50	5.50	0
10	92400	COFFEE POT ROAD #92400	6.38	6.48	0.10	1.00	0.09	7	BST	5.50	5.50	61
10	93150	SPRAGUE HIGHWAY ROAD #93150	12.45	12.80	0.35	1.00	0.09	7	BST	5.50	5.50	67
10	93150	SPRAGUE HIGHWAY ROAD #93150	14.82	14.99	0.17	1.00	0.09	7	ACP	5.50	5.50	65
10	93150	SPRAGUE HIGHWAY ROAD #93150	14.99	15.12	0.13	0.00	0.00	7	ACP	5.50	5.50	17
	93350	WAUKON ROAD #93350	5.00	5.86	0.86	2.00	0.19	7	BST	5.50	5.50	86
	93350	WAUKON ROAD #93350	7.17	8.46	1.29	2.00	0.19	7	BST	5.50	5.50	86
	93350	WAUKON ROAD #93350	9.40	10.02	0.62	0.00	0.00	7	BST	5.50	5.50	86
10	94330	OLD COULEE ROAD #94330	7.00	7.90	0.90	2.00	0.19	7	BST	5.50	5.50	45
	94450	SHERMAN ROAD #94450	5.03	5.98	0.95	1.00	0.09	7	BST	5.50	5.50	90
10	95100	MILES CRESTON ROAD #95100	4.66	5.16	0.50	1.00	0.09	6	BST	5.50	5.50	57
	96100	BLUESTEM ROAD #96100	2.21	3.22	1.01	2.00	0.19	7	BST	5.50	5.50	84
	96100	BLUESTEM ROAD #96100	3.22	3.34	0.12	1.00	0.09	7	BST	5.50	5.50	88
	96100	BLUESTEM ROAD #96100	3.37	3.46	0.09	0.00	0.00	7	BST	5.50	5.50	88
	96100	BLUESTEM ROAD #96100	3.46	3.54	0.08	1.00	0.09	7	BST	5.50	5.50	88
10	96100	BLUESTEM ROAD #96100	12.52	12.59	0.07	2.00	0.19	7	BST	5.50	5.50	76
10	96100	BLUESTEM ROAD #96100	12.59	12.66	0.07	1.00	0.09	7	BST	5.50	5.50	76
10	96100	BLUESTEM ROAD #96100	12.66	12.78	0.12	1.00	0.09	7	BST	5.50	5.50	76
10	96100	BLUESTEM ROAD #96100	12.78	12.85	0.07	1.00	0.09	7	BST	5.50	5.50	76
10	96190	OMANS ROAD #96190	9.52	10.02	0.50	0.00	0.00	7	BST	5.50	5.50	56
10	96190	OMANS ROAD #96190	10.02	11.60	1.58	2.00	0.19	7	BST	5.50	5.50	47
	96310	MONDOVI ROAD #96310	2.14	2.36	0.22	0.00	0.00	7	BST	5.50	5.50	89
	96430	PORCUPINE BAY ROAD #96430	0.07	0.63	0.56	0.00	0.00	7	BST	5.50	5.50	86
10	96540	LITTLE FALLS ROAD #96540	0.74	1.21	0.47	1.00	0.09	7	BST	5.50	5.50	68

Chapter 5: Economic Development Element

Economic Development Element - Defined

“An economic development element establishing local goals, policies, objectives, and provisions for economic growth and vitality and a high quality of life. The element shall include: (a) A summary of the local economy such as population, employment, payroll, sectors, businesses, sales, and other information as appropriate; (b) a summary of the strengths and weaknesses of the local economy defined as the commercial and industrial sectors and supporting factors such as land use, transportation, utilities, education, workforce, housing, and natural/cultural resources; (c) an identification of policies, programs, and projects to foster economic growth and development and to address future needs.” (RCW 36.70A.070)

It is Lincoln County’s mission to improve the quality of life for its citizens by capitalizing on the county’s economic advantages and strengths. The Lincoln County Economic Development Strategy is the guide to achieving that mission and the strategy addresses the requirements of RCW 36.70A.070.

Economic Development Goals & Policies

Goal 5.1: Retain, Expand & Recruit Business

Policy 5.1 - Maximize our region’s agricultural economy.

Policy 5.2 - Maximize our region’s recreation and tourism economy.

Policy 5.3 - Provide assistance to the region’s new and existing businesses.

Policy 5.4 - Promote cluster opportunities around existing businesses.



Goal 5.2: Build Our Workforce

Policy 5.5 - Identify and address industry workforce gaps.

Policy 5.6 - Increase collaboration between workforce stakeholders.

Policy 5.7 - Provide vocational training opportunities.

Goal 5.3: Secure the Infrastructure Necessary for Resource Delivery & Economic Growth

Policy 5.8 - Develop the multimodal transportation system necessary to accommodate existing and future commerce.

Policy 5.9 - Secure the commercial and industrial infrastructure necessary for future development.

Policy 5.10 - Develop the telecommunication infrastructure necessary to increase economic opportunity and improve quality of life.

Policy 5.11 - Identify and address housing-related issues that could inhibit economic growth.

Goal 5.4: Unite Stakeholders for Increased Economic Development

Policy 5.12 - Maintain an economic development strategy for Lincoln County.

Policy 5.13 - Address policy that inhibits economic growth.

Policy 5.14 - Maintain strong partnerships with government and nongovernment economic development organizations.

Lincoln County's economic development strategy can be found at <http://lincolnedc.org/lincoln-county/lincoln-county-economic-development-strategy/>

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Chapter 6: Public Services, Facilities & Utilities Element



Introduction

Lincoln County residents rely on a number of services and facilities throughout the County. Public Services, Facilities & Utilities range from fire protection and sheriff duties to electric, water and sewer service.

Cities and towns within the County have municipal water systems and sewage collection systems, while the majority of the rural residents rely on domestic exempt wells and on-site septic systems. There are also multiple group B water systems throughout the County. **Figure 234** shows where the group B systems are located.

Lincoln County is served by two electric companies; Inland Power and Light services *most* of the unincorporated area while Avista serves the towns/cities and a couple other pockets in the County. See **figure 123** for a map.

Lincoln County also has a major electrical transmission line. The line, owned by the Bonneville Power Administration (BPA), enters the County from Spokane County, north of Reardan and traverses across to Grand Coulee Dam. There are two pipelines crossing the County as well. One owned by Yellowstone Gas and one Williams Gas.

Lincoln County is made up of 8 fire districts that are served by volunteer fire departments. The Lincoln County Sheriff's Office provides public safety services to the unincorporated areas of the County as well as within certain towns.

Rural counties, such as Lincoln, face a unique problem of having high-speed internet available and affordable. Satellite providers generally limit the amount of data (or at least slow the speed once the limit is met) and they can be expensive. Broadband companies tend to focus their resources where the populations, and therefore the customers, are greater. Lincoln County and the Lincoln County Economic Development Council have worked with, and hope to continue to, organizations that specialize in bringing high-speed broadband internet to rural America.

This chapter of the Comprehensive Plan is aimed at looking at all the services that residents need and finding a way for them to work together to provide a safe, efficient place to live and work. It is important that the public services, facilities and utilities be consistent with land use

designations and development patterns so that the County will develop in an orderly manner while protecting natural resources.

Public Services, Facilities & Utilities Goals & Policies

Goal 6.1 : Encourage private and public water system planning to promote efficient service, protect the natural resources and ensure orderly physical development of Lincoln County.

Policy 6.1 - Encourage public and private water purveyors to implement measurable water conservation practices.

Goal 6.2 : Provide solid waste disposal to reduce hazard, pollution or nuisance to Lincoln County.

Policy 6.2 – Support the Lincoln County Solid Waste Plan.

Goal 6.3 : Encourage private and public sanitary sewer planning to promote efficient service, protect the natural resources and ensure orderly physical development of Lincoln County.

Policy 6.3 - Existing and future sewage disposal systems shall meet or exceed all applicable local, state and federal regulations.

Goal 6.4: Provide Stormwater facilities and related management programs that protect surface and groundwater quality and habitat, prevent chronic flooding from Stormwater, maintain natural stream hydrology and protect aquatic resources.

Policy 6.4 - New development shall manage Stormwater in accordance to Ecology’s Stormwater Manual for Eastern Washington.

Goal 6.5 : Site facilities and utilities consistent with the policies of the Land Use Element.

Policy 6.5 - New development shall be consistent with established utility plans and procedures.

Policy 6.6 - Coordinate with utility providers.

Goal 6.6 : Provide emergency services efficiently and cost effectively to Lincoln county residents, businesses and visitors.

Policy 6.7 - Encourage wildland-urban interface policies

Policy 6.8 - Encourage cooperation between fire districts.

Policy 6.9 - Encourage interjurisdictional cooperation among law enforcement and corrections agencies to further develop, where practical, shared service and facility use.



Policy 6.10 – Implement cooperation strategies between the fire districts and Land Services to ensure development secures fire protection based on applicable code requirements.

Goal 6.7: Locate public buildings, schools and community centers where adequate roads and utilities are available.

Policy 6.11 - Encourage multiple uses of public buildings.

Policy 6.12 - Encourage cooperation and collaboration among schools, community groups, cities and the county.

Goal 6.8: Growth and development activity should pay a proportionate share of the cost of planned facilities needed to serve the growth and development activity.

Policy 6.13 – Evaluate the need for growth related impact fees imposed for public streets and roads; public parks, open space and recreation facilities; schools; and fire protection facilities. Impact fees may be only imposed for systems that are reasonably related to the new development; shall not exceed a proportionate share of the costs of system improvements that are reasonably related to the new development; and, shall be used for system improvements that will reasonably benefit the new development.

Goal 6.9: Support the development & installation of infrastructure necessary to provide broadband internet & phone access to residents and businesses of Lincoln County.

Policy 6.14 - Encourage developers to install the infrastructure necessary for broadband and phone when installing other utilities (Broadband Conduit Deployment Act of 2015).

Policy 6.15 – Work with the EDC & the Broadband Planning Team to bring broadband to outlying areas.

Chapter 7: Implementation

Introduction

This chapter recommends how the County may best implement the goals and policies outlined in this plan. It is necessary for the County to identify the types of actions required and determine the priority and timing of the actions. Lincoln County will carry out this comprehensive plan using several approaches, including: policy decisions, code revisions and intergovernmental coordination.

Policy Decisions

Most of the policies in this plan will be implemented through the normal policy making process by the administrators and staff, planning commission and the board of county commissioners. This plan will serve as the guide for policy decisions throughout its life.



Lincoln County Code Revisions

Once the plan is adopted, the county will need to review and, if necessary, revise the existing development regulations including; Title 16- Land Divisions, Title 17- Zoning and Title 18 - Environment (floodplains, shoreline and critical areas) to insure consistency with the goals and policies of the comprehensive plan. Code changes may include:

- i. Create a domestic water resource protection overlay district.
- ii. Strengthen resource protection standards to help avoid development impacts to natural resource and/or hazardous areas.
- iii. Review the zoning districts to address land use densities, compatibility, drinking water availability and future land use needs.
- iv. Create performance standards for clustered/planned unit developments (PUD).

Implementation Goals & Policies

Goal 7.1: Encourage early and on-going citizen involvement for projects as well as code and plan updates.

Policy 7.1 – Keep the website updated with current projects and applications.

Policy 7.2 – Follow public notice requirements.

Appendix A

Community and Demographic Profile

This element includes a profile of the people who live, work and own property in Lincoln County. In order to make informed decisions about future direction, county leaders need to have a clear understanding of current population conditions and trends.

Lincoln County profile



by Doug Tweedy, regional labor economist - *updated*

September 2017

[Overview](#) / [Geographic facts](#) / [Outlook](#) / [Labor force and unemployment](#) / [Industry employment](#) / [Wages and income](#) / [Population](#) / [Useful links](#) / [PDF Profile copy](#)

Overview

Regional context

Lincoln County is a rural county at the northern edge of the Palouse wheat-growing region. The economy is dominated by wheat. The entire northern boundary of the county is a federal Indian reservation and the county seat is in Davenport. Lincoln County is the eighth largest in the state, comprising 2,317 square miles.

Next to Whitman County, Lincoln County grows the most wheat in Washington state. Annual wheat production can be over 25 million bushels. One point two million acres of the county's 1.5 million-acre area is in farmland and one in every three of those acres is planted in wheat. Lincoln county farmers are very efficient and 2017 production was good. However, wheat prices did drop and have farmers worried about the future. With the drop in wheat prices, the regional economy and local retail sales will be impacted. Livestock production is also an important component of Lincoln county agriculture. A new meat packing plant in Odessa has added diversity to agriculture income.

Tourism activities have increased over the last decade as Grand Coulee Dam and Lake Roosevelt have become more developed.

Local economy

Original settlers came to the area seeking gold and those who settled in the area grew livestock. With the advent of the first railroad in 1881, overall agriculture production focused on wheat. Success in wheat farming eventually drove migration, settlement and development.

Growth in total nonfarm employment has been relatively slow over the last 12 years, but had managed to minimize losses during the last recession. Employment peaked in 2008, but has slightly declined since then.

Geographic facts

(Source: *U.S. Census Bureau QuickFacts*)

	Lincoln County	Rank in state
Land area, 2010 (square miles)	2,310.49	8
Persons per square mile, 2010	4.6	37

Outlook

The Lincoln County goods-producing sector remained unchanged in 2017. Increases in agricultural wealth have spurred construction of storage facilities and warehouses.

The service-providing industry has seen decreases. Losses have come from trade and financial employment. Government employment constitutes almost half of all jobs in the county. In the short term ongoing budgetary problems are expected to continue to limit overall expansion of government. Lincoln County retail sales improved in 2016. But, even with the increase in total retail sales, overall sales tend to be lower relative to the per capita state average. This reflects the large number of purchases occurring in neighboring counties as county residents travel to shop.

Slow population growth over the last decade limits overall economic growth. This is especially true in many small communities where support for services and the replacement of existing public infrastructure are hampered by a declining population. Overall, the population for the county tends to grow much slower and is older than is typical for the state and nation.

Labor force and unemployment

(Source: Employment Security Department)

Current labor force and unemployment statistics are available on the [Labor area summaries page](#).

Through the first six months of 2017 the average civilian labor force was 4,936 which compares to 4,871 for the same period in 2016. Increases in the labor force reverse a trend from 2010, of workers migrating out of the county. Good news for county employers. The county unemployment rate in the first half of 2017 averaged 5.3 percent, which is a decrease from the first half of 2016 (6.2 percent).

The unemployment rate fluctuates throughout the year, reflecting seasonal employment, with lows in the summer and highs in the winter.

Industry employment

(Source: Employment Security Department)

Current industry employment statistics are available on the [Labor area summaries page](#).

Lincoln County nonfarm employment averaged 2,612 in the first half of 2017 compared to 2,568 for the same period in 2016.

- Goods-producing employment averaged 235 in the first half of 2017. A slight increase (17) from 2016.

- Service-providing employment averaged 2,377 in 2017 compared to the 2016 average of 2,350. A majority of the increase came in Information and financial industries.
- Government employment averaged 1,302 in 2017, down slightly from the 2016 average employment of 1,318.

For historical industry employment data, [contact an economist](#).

Industry employment by age and gender

(Source: The Local Employment Dynamics)

The Local Employment Dynamics (LED) database, a joint project of state employment departments and the U.S. Census Bureau, matches state employment data with federal administrative data. Among the products is industry employment by age and gender. All workers covered by state unemployment insurance data are included; federal workers and non-covered workers, such as the self-employed, are not. Data are presented by place of work, not place of residence. Some highlights:

The largest jobholder group in Lincoln County in 2016 was the 55+ year-olds with 31.3 percent of the workforce. They were closely followed by 45-54 year-olds with 21.0 percent of the workforce.

In 2016, 51.0 percent of all industry jobs were held by men and 49.0 percent were held by women. Industry differences are discussed below:

- Male-dominated industries included agriculture (81.0 percent), construction (87.7 percent), transportation and warehousing (77.9 percent), administrative and waste management (78.3 percent) and wholesale trade (73.0 percent).
- Female-dominated industries included accommodation and food service (80.2 percent), healthcare and social assistance (76.3 percent), professional, scientific and technical services (81.2 percent), finance and insurance (77.8 percent) and educational services (65.3 percent).

Wages and income

(Source: Employment Security Department; Bureau of Labor Statistics; Bureau of Economic Analysis; U.S. Census Bureau; U.S. Census Bureau, American Community Survey)

In 2016, there were 2,768 jobs covered by unemployment insurance, with a total payroll of \$97.1 million.

The county annual average wage was \$35,076 in 2016, which is well below the state's average annual wage of \$59,073. In 2016, Lincoln County ranked 35th of 39 counties in the state for average annual wages.

Personal income

Personal income includes earned income, investment income, and government payments such as Social Security and Veterans Benefits. Investment income includes income imputed from pension funds and from owning a home. Per capita personal income equals total personal income divided by the resident population.

In 2015 the per capita income was \$44,958, which was well below the state's per capita income of \$51,898 and the nation's per capita income of \$48,112.

Median household income over the period 2011 to 2015 was \$46,069, well below the state's \$61,062.

Over the period 2011 to 2015, 14.0 percent of the population was living below the poverty level in Lincoln County. This compares to 12.2 percent of the state.

Population

(Source: U.S. Census Bureau)

Lincoln County's population was 10,570 in 2010. The estimated population in 2016 of 10,350 was a drop of -2.1 percent. However, we do expect this trend of population decreases to slow as jobs increase.

The largest city in Lincoln County is Davenport with a population of 1,690 in 2016. Many small communities have experienced no growth or declines in the populations over the last decade.

Population facts

(Source: U.S. Census Bureau QuickFacts)

	Lincoln County	Washington state
Population 2016	10,350	7,288,000
Population 2010	10,570	6,724,540
Percent change, 2010 to 2016	-2.1%	8.4%

Age, gender and ethnicity

(Source: U.S. Census Bureau QuickFacts)

Lincoln County, as a percent, had a much older age demographic than the state or nation in 2016.

- Lincoln County's population age 65 and older was 25.0 percent in 2016 compared to the state's 14.8 percent.
- The youngest age group, under 5 years, was 4.9 percent in 2016 compared to the state's 6.2 percent.

Males and females were almost exactly split 50.0/49.4.

Within Lincoln County, there is less diversity than the state. White persons who are not of Hispanic descent made up 94.3 percent of the county's population compared to 80.0 percent of the state's population.

Demographics

(Source: U.S. Census Bureau QuickFacts)

	Lincoln County	Washington state
Population by age, 2016		
Under 5 years old	4.9%	6.2%
Under 18 years old	21.4%	22.4%
65 years and older	25.0%	14.8%
Females, 2016	49.4%	50.0%
Race/ethnicity, 2016		
White	94.3%	80.0%
Black	0.5%	4.1%
American Indian, Alaskan Native	2.0%	1.9%
Asian, Native Hawaiian, other Pacific Islander	0.7%	9.4%
Hispanic or Latino, any race	3.3%	12.4%

Educational attainment

(Source: U.S. Census Bureau QuickFacts)

Over the period 2011 to 2015, 91.3 percent of individuals age 25 and older were high school graduates. This figure is higher than that of Washington State (90.4 percent).

Over the same period, fewer Lincoln County residents 25 and older have attained a bachelor's degree or higher (20.6 percent), compared to the state (32.9 percent).

Appendix B
Agricultural Census

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