

# DOUGLAS COUNTY COUNTYWIDE COMPREHENSIVE PLAN

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# **CHAPTER 1**

## **INTRODUCTION**

# CHAPTER 1

## PURPOSE & AUTHORITY

### 1.1 PURPOSE

The Comprehensive Plan for Douglas County is intended to guide the physical development of the county for the foreseeable future. The plan provides a sense of direction, a broad overview of where a community is (existing conditions) and where it is going (future desires). Goals, policies, recommendations and maps are set forth in the plan that will enable the public, local agencies, and County officials to make informed decisions that are in the best interest of the county and cities within its boundary. The Plan is also intended to maintain reasonable continuity in future decision-making as turnover occurs within the County's legislative body. It furnishes direction for the development of the County, which will make it a more convenient, attractive, and orderly place in which to live, shop, work and play. In order to reflect technological, social, economic and political changes the plan must be periodically reviewed and updated.

### 1.2 AUTHORITY

In 1935 and again in 1990 the State Legislature enacted legislation that granted local governments the authority to plan for the future development of their community. The primary emphasis of the Growth Management Act (GMA) is coordinated, cooperative planning, with substantial and continuous public input.

In October of 1990, Douglas County “opted in” to the GMA planning process after consultation with the five cities/towns, the public, and civic leaders. This allowed a head start to planning efforts on a countywide basis before Douglas County would have been mandated into the process due to a projected increase in year population between 1981 and 1991 of twenty-two percent.

The Growth Management Act establishes 14 goals to guide the development of comprehensive plans and development regulations for counties and cities planning under the Act, which are as follows:

**Urban Growth**...Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.

**Reduce Sprawl**...Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development.

**Transportation**...Encourage efficient multimodal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans.

**Housing**...Encourage the availability of affordable housing to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.

**Permits**...Applications for both state and local government permits should be processed in a timely manner to ensure predictability.

**Environment**...Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.

**Economic Development**...Encourage economic development throughout the state that is consistent with adopted comprehensive plans, promote opportunity for all citizens of this state, especially for unemployed and for disadvantaged persons, and encourage growth in areas experiencing insufficient economic growth, all within the capacities of the state's natural resources, public services, and public facilities.

**Property Rights**...Private property shall not be taken for public use without just compensation having been made. The property rights of landowners shall be protected from arbitrary and discriminatory actions.

**Natural Resource Industries**...Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forestlands and productive agricultural lands, and discourage incompatible uses.

**Open Space And Recreation**...Encourage the retention of open space and development of recreational opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks.

**Citizen Participation And Coordination**...Encourage the involvement of citizens in the planning process and ensure coordination between communities and jurisdictions to reconcile conflicts.

**Public Facilities And Services**...Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.

**Historic Preservation**...Identify and encourage the preservation of lands, sites, and structures that have historical or archaeological significance.

**Shorelines Of The State**...Ensure that the shorelines of the state are planned and managed to foster all reasonable and appropriate uses in accordance with policies set forth in RCW 90.58.020. The County should recognize and protect the functions and values of the shoreline environments of statewide significance. Activities should be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's use of the water.

Important factors contained within the Growth Management Act include consistency between:

- The comprehensive plan and the planning goals identified in RCW 36.70A.020;
- Municipal and county comprehensive plans;
- The comprehensive plans of each municipality and county with those of neighboring municipalities and counties;
- The elements within the comprehensive plan (internal consistency); and
- The comprehensive plan and capital budget.

### **1.3 REGIONAL POLICY PLAN**

In 1991, the State legislature amended the GMA to require that counties adopt countywide planning policies in cooperation with their municipalities. The purpose of these policies is to establish a coordinated framework for the development of comprehensive plans in order to effectively provide a balance of land use, infrastructure, and finance throughout the region. It is intended that the countywide policies will serve as a framework for the development of each jurisdiction's comprehensive plan, helping to ensure consistency and compliance between town/city, county plans and the GMA.

The Regional Policy Plan includes policies that:

- Promote contiguous and orderly development and provisions of urban services,
- Provide for public capital facilities of a countywide or state nature,
- Provide for countywide transportation facilities,
- Provide for affordable housing,
- Provide for joint county and city planning within urban growth areas,
- Provide for economic development and employment, and
- Analyze fiscal impacts.

This comprehensive plan follows the policy framework of the Regional Policy Plan as amended by the Board of Commissioners on March 19, 2002. The Regional Policy Plan is hereby incorporated by reference.

### **1.4 PUBLIC PARTICIPATION**

It has been said "*community planning can be only as successful as its support by the general public.*" This principle is supported by the Public Participation Policy Plan adopted by Douglas County in April of 1999. The policy plan establishes procedures to ensure early, broad and continuous citizen participation on the development and amendment of comprehensive plans, implementation regulations and major land use decisions. Early involvement includes creating meaningful opportunities for the public to get involved in a project in a significant way. Public information and participation opportunities include dissemination of proposals/alternatives, processes for verbal and written comment, public workshops, surveys, and public hearings with adequate public notice.

The adoption of the comprehensive plan started in the fall of 1991 with an intensive "Visioning" effort that involved a tabloid and survey, advertised meetings, and a display booth at the North Central Washington District Fair. The goal of this effort was to educate and solicit public input on the requirements, benefits and future vision of the County. Public involvement has continued throughout the development of the comprehensive plan and amendment process through additional tabloids and display booths at the Fair, and meetings with City Councils and special interest groups.

Several citizen advisory groups were established in 1991 by the Douglas County Board of Commissioners to manage the size and scope of the initial plan adopted in 1995. Advisory groups represented differing geographic areas and backgrounds in Douglas County including agriculture, rural, and urban issues. One of the major citizen advisory groups included the rural lands committee, which seemingly had opposing objectives of preserving the agricultural economy of the County and allowing for growth and development in the rural areas. Other

citizen advisory committees represented included the agricultural advisory committee, the Greater East Wenatchee area (GEWA) advisory committee, Orondo advisory committee, Parks advisory committee, Pangborn Memorial advisory committee, and Transportation Technical advisory committee.

Amendments to the Douglas County Comprehensive Plan have followed similar public participation efforts including “visioning”, public workshops and public hearings. Another key component has been the inclusion of the Internet for posting of workshop minutes, special studies, research data and similar documents. The amendment process for the plan is conducted by the Douglas County Regional Planning Commission.

### **1.5 PLANNING COMMISSION**

The Douglas County Regional Planning Commission is the primary citizen body for public input, including advisory committee recommendations (when applicable) during the review and revision of the County’s comprehensive plan. The Planning Commission holds public workshops and hearings throughout the county before making a formal recommendation to the Board of Commissioners.

### **1.6 RELATIONSHIP TO OTHER PLANS**

The comprehensive plan volumes of Douglas County consist of the countywide comprehensive plan (this document), the Greater East Wenatchee Area sub-area comprehensive plan (GEWA) and the individual town/city sub-area comprehensive plans. These plans and documents are listed in Appendix A.

For areas of the County that need more individualized attention, but are not currently in a sub-area planning process, further efforts are anticipated in the future to supplement the information and direction provided in this Comprehensive Plan. The Douglas County Comprehensive Plan must be consistent with other planning efforts throughout the County in order to give a complete picture of the overall projected growth and meet the provisions of the County Regional Policy Plan and the Growth Management Act.

Resource and rural issues were very similar throughout the unincorporated areas of the County, while the cities were facing other issues. Consequently, the cities/towns of Waterville, Mansfield, Coulee Dam and Bridgeport have individual plans that include a projected twenty-year urban growth area (UGA). For these communities the UGA boundary is very similar to their existing corporate limits, allowing for in-fill of vacant lots, preservation of the extensive agricultural resources just beyond the UGA and effective provision of urban services. However, due to previous planning efforts in the Greater East Wenatchee Area in 1964, 1978 and 1988 a determination was made to do a sub-area plan for the larger area, similar in size and scope as previous planning efforts. The Greater East Wenatchee (GEWA) planning area is approximately 31,000 acres, of which the East Wenatchee UGA is just under 6,000 acres in size and the Rock Island UGA is 830 acres in size. Both the cities of East Wenatchee and Rock Island have completed individual comprehensive plans for their respective communities including an identified 20-year UGA. The GEWA includes a mix of agriculture, rural and urban land uses. Maps depicting the locations of the urban growth areas in the county that have been adopted are included in Appendix B. As directed by the Douglas County Regional Policy Plan, the urban area plans and the GEWA sub-area plan manage urban-style development within

identified UGAs. The sub-area plan also includes rural and resource land uses in conjunction with the countywide comprehensive plan.

The countywide plan volumes are the primary guidance for future growth and development in Douglas County. This relationship provides consistency between plans, particularly at the urban fringes, and leads to a logical progression from urban to rural to resource areas.

### **1.7 INCORPORATION OF AN ENVIRONMENTAL ANALYSIS**

Douglas County used an integrated process in development of this comprehensive plan to reduce costs, and avoid duplicated efforts in preparing the comprehensive plan and environmental documentation. The plan includes an environmental analysis using an expanded checklist in conjunction with the nonproject EIS conducted in 1995 for adoption of the comprehensive plan.

The integration of the plan with the SEPA process was conducted pursuant to WAC 197-11-442, which allows the lead agency more flexibility in preparing an EIS on nonproject actions.

The integrated process is also intended to benefit future developments that are within the parameters established by the preferred alternative/comprehensive plan through the phased review process, as allowed in WAC 197-11-060(5). In other words, if a project is proposed that meets the intent and requirements of the comprehensive plan, including mitigation measures, a mitigated or conditioned DNS may suffice where before an EIS would be required. A proposal that is within the scope of the adopted comprehensive plan would only be required to do an environmental analysis on the potential impacts of their specific site, as opposed to analyzing its impact on the larger community. That larger impact will have already been discussed, at least initially, in the integrated comprehensive plan.

### **1.8 PLAN MONITORING AND AMENDMENT PROCESS**

Comprehensive plan policies are based on citizen input from surveys and public meetings, population and land capacity analysis, and public facilities and level of service capacity analyses. These analyses and forecasts are based on numerous assumptions about growth rates and distribution, land availability, market factors and others. In order to monitor the plan performance and provide accurate information, the county and cities have initiated a monitoring program to allow plan review and, if necessary, plan amendments to allow for a timely response to differences between actual growth rates and plan assumptions.

Amendments to the plan can be initiated by the county/city or requested by individual applicants. The county together with the cities will evaluate comprehensive plans and the adequacy of land supply for a twenty-year supply on a range of land uses every five years. The process for reviewing plan amendments will follow the process used for the preparation of comprehensive plans. Comprehensive plan amendments will not occur more than once each year, except as otherwise provided in the GMA. As part of the docketing process, proposed amendments will be considered concurrently so that the cumulative effect of various proposals can be identified.

## **1.9 DESCRIPTION OF THE COUNTY PLANNING AREA**

Douglas County is located close to the geographical center of Washington state. It lies on the northern edge of the Columbia Basin in the shelter of the Cascade Mountains to its west. It is bordered on the north and west by the Columbia River and on the east by the Grand Coulee Equalization Reservoir (Banks Lake) and Sun Lakes. Roughly oval in shape, it is about 70 miles long and 40 miles wide encompassing 1,831 square miles with its main axis lying in a northeasterly direction.

Douglas County's topography ranges from lowland areas along the Columbia River corridor to a high point on Badger Mountain with an approximate elevation of 4100 feet, but it is, for the most part, a mildly rolling plateau. Besides being surrounded by water, the County has several streams and lakes that provide a range of recreational opportunities.

The climate of Douglas County is influenced by elevation, topography, distance and direction from the ocean, prevailing westerly winds and the position and intensity of the high and low pressure centers in the western Pacific Ocean. Temperature ranges can vary noticeably between the lowland river corridor areas and the plateau, but they generally average between 25 degrees in January, to 85 degrees in the summer months. Average annual precipitation ranges from 8 to 12 inches, with the heaviest precipitation occurring during the winter months.

Douglas County is on the western edge of the extensive Columbia Plateau formed by the extrusion of lava throughout much of Eastern Washington during the Eocene, Miocene and Pliocene epochs. The region was warped into the form of broad basins, some of which were formed by locally steeper folding and by faulting. During the Pleistocene or glacial epoch, the sub-basins accumulated deposits of clay, silt, sand and gravel. Some of the deposits left by the glaciers are more conspicuous. The gigantic blocks of basalt called haystack rocks (some of which are larger than a good sized house) were transported by glaciers and dropped in an area known as a terminal moraine, which marks the end of the glaciers' southward journey.

There are two major drainage basins that handle the surface water runoff for the County, both of which deposit directly into the Columbia River. The Foster Creek drainage basin covers the northern portion of the County and outlets near Chief Joseph Dam at Bridgeport. The Moses Coulee drainage is much larger and drains the majority of the County, with its mouth 7 miles south of Rock Island.

Douglas County has six incorporated communities including the Town of Coulee Dam, which is located in three separate counties with a portion in Douglas County, Grant County and Okanogan County. The lowland areas of the County contain three of the incorporated communities, Bridgeport on the northwest border and East Wenatchee and Rock Island to the southwest. Mansfield and Waterville, the county seat, are the two oldest communities in the County and are situated on the plateau. In addition to these incorporated cities and towns, there are concentrations of population in historical settlement areas. Withrow and Douglas are communities located on the plateau, the Orondo area is somewhat north of East Wenatchee along the Columbia River, and Palisades is a settlement area located approximately 10 miles northeast of SR 28 in the Moses Coulee area.

The predominant land use in Douglas County is agriculture, in the form of dryland grain crops (including some in CRP), rangeland livestock grazing and irrigated orchard farming. Irrigated agriculture activities are located in the Moses Coulee area, and along the Columbia River corridor. Dryland wheat, other grain crops, and livestock production are primarily located on the plateau area.

Recreational developments are generally occurring along the Columbia River corridor from Trinidad in the south to Bridgeport in the north and in the Badger Mountain Area. Recreational activities include a host of differing passive and active uses ranging from recreational subdivisions, to improved park developments, boating opportunities, racing, camping hiking, water skiing, and golf. The diversification of uses contributes to the county's tourist industry further diversifying the County's economic base. However, as there is increasing pressure for this type of development, the incidence of agricultural and residential/recreational uses conflicting with each other also increases. As a result, it generally becomes more difficult for the agricultural use to continue, and pressures are placed on the agricultural base to convert to other uses, particularly the orchards along the Columbia River. It will be important to the future of Douglas County's economic base to find a feasible way to maintain and enhance both industries without degrading one in the name of promoting the other.

#### **1.10 TRANSPORTATION SYSTEM**

In Douglas County the transportation system consists primarily of a network of roads serving a diverse range of uses. The system is integrated with the Federal and State road system that serves all of the different areas of the County. The roads that are part of the County system are divided into two geographical areas: urban and rural. A road within the urban area is further classified into one of four functional categories: principle arterial, minor arterial, collectors and local access. In the rural areas, there are three functional categories: major collector, minor collector and local access.

In general, an arterial is designed to serve a larger regional and is characterized by higher speeds and larger volumes of traffic. Typically, access to arterials is limited to collector roads; driveways and local access roads connecting into an arterial are primarily discouraged, primarily to not impede the higher speeds or create safety problems associated with turning movements. A collector road usually serves as a connection to an arterial street for an entire neighborhood, with lower speeds and volumes than an arterial. Access to a collector is usually through a local access road and again, driveways are discouraged. The local access roads are designed to serve individual lots and are characterized by very low speeds and volumes. These roads are intended to be the primary access for driveways and individual lots, serving as the link between land uses and the collector/arterial systems.

Table 1 represents road miles for various rural and urban roads in Douglas County.

**Table 1: Douglas County Transportation System**

Rural Area	
Major Collector	176.1 miles
Minor Collector	226.89 miles
Local Access	1165.98 miles
Total (RA)*	1568.96

Urban Area	
Principle Arterial	5.75 miles
Minor Arterial	12.24 miles
Collector	22.33 miles
Local Access	52.97 miles
Total (UA)*	99.04

\* Total miles of roads in Douglas County = 1668 miles

Source: Douglas County Transportation and Land Services Department

In addition to the road system in Douglas County, there is a developing trail system in the East Wenatchee Area, which provides an alternative mode of transportation, especially within the larger Wenatchee Valley area.

There are three general aviation airport facilities providing passenger and freight transportation in the County. Pangborn Memorial Airport in the Greater East Wenatchee Area is the primary regional airport for Douglas County and Chelan County. The airports in Waterville and Mansfield are primarily used for agricultural operations, freight, and small airplane use.

The Burlington Northern Santa Fe Railroad’s rail line runs through the southern portion of Douglas County, however, there is no direct rail service out of Douglas County. The primary rail yard is in Wenatchee with lesser rail service in smaller communities throughout Chelan County. Historically, the Mansfield spur, a part of the Burlington Northern Santa Fe Railroad, provided service to the plateau areas of Douglas County prior to 1978. The spur line was located in the southern portion of the County through the Palisades and Douglas Creek area. The rail line terminated in the Town of Mansfield.

# **CHAPTER 2**

## **THE VISION OF DOUGLAS COUNTY**

## CHAPTER 2 THE VISION OF DOUGLAS COUNTY

### 2.1 Introduction

A comprehensive plan is all about drawing a picture of how the community should develop and appear in the future, the vision. Usually, visions consist of values and ideas developed by the citizens who live in the community. The community vision is the foundation statement of the comprehensive plan. It expresses community aspirations and can inspire community action, guide future investment decisions, serve as a barometer for assessing progress over time and provide a way to keep focused on long-term goals while addressing present day issues, problems and opportunities.

It is challenging to form a vision that is clear, represents the views of most of the people in the community and can effectively be carried out through the comprehensive plan. Visions also change with time as the values and views of the County residents change. It is a process, like so many in planning. Visions for comprehensive plans must be revisited at regular intervals to be sure they reflect contemporary ideas about the future, current realities and new or changing community ideals.

Over ten years ago a Community Vision was developed for the Rural Volume of the Douglas County Comprehensive Plan. This vision was evaluated in 2002 and some changes and additions made to assure it continues to be relevant. The initial vision was created with active citizen participation. The County was divided into four geographic areas called Planning Units, each with citizen advisory committees, to assure implementation of the citizen participation requirements of the Washington State Growth Management Act.

Planning Unit #4, originally created to deal with the east portion of the County where there are no incorporated communities other than a small portion of the Town of Coulee Dam, became the Rural Lands Committee. This Committee considered rural issues in general. The Committee after many long hours came to a consensus of the foundation statement of the rural Community Vision recommending there be a balance between “preserving the agricultural economy of the County and allowing for growth and development in the rural areas, primarily through innovative, progressive implementation techniques such as promoting cluster development which incorporates buffering.”

Citizens were again asked for their opinions and ideas about growth and development in the spring of 2002. A flyer was sent to 3,900 households announcing the Listening Posts conducted in three rural areas of County and at the Wenatchee Valley Mall to provide opportunities for citizens to indicate their ideas and opinions for future growth and development. An informal survey, Picture The Future! was featured at the Listening Posts and made available at County and City Planning Offices. This information, with an emphasis on rural viewpoints, assisted County Commissioners and the Regional Planning Commission prepare the following

draft update to the Community Vision in the 1995 Douglas County Comprehensive Plan, Rural Volume.

## 2.2 The Vision

### You will see:

- There is a balance between preserving the agricultural economy of the County and allowing for growth and development in the rural areas primarily through innovative, progressive implementation techniques such as promoting cluster development which incorporates buffering
  - □Farmland and agricultural activities are preserved by allowing agricultural related activities on premises including, for example: fruit stands, wineries and agricultural related support services.
- Countywide guidelines are created and in place which acknowledge and respect private property rights.
- Rural character is preserved while enhancing economics by allowing smaller housing developments utilizing marginal lands through the use of cluster lot developments.
- Clean industry is promoted in rural areas that is compatible with and diversifies the economic base.
- Agricultural tourism is encouraged to locate in appropriate river corridors and agricultural lands by: support of infrastructure development, flexible development regulations and addressing transportation concerns.
- Housing is available for all income levels.
- There is equity in the provision of public infrastructure and services, particularly transportation and law enforcement, in rural areas of the county.
- Wildlife habitat is promoted while taking into consideration people's livelihood and future economic development.

The County also recognizes the following needs are essential to support the rural vision:

- Sustainable growth is a necessary component - rural lands need freedom to grow on own scale.
- Public priorities need viable economic generators to provide funds for capital and maintenance spending for recreation and shoreline activities.
- Different areas have different needs for type and rate of development.
- A major part of quality of life is the need for access to employment opportunities.

The complete community vision evaluation report, [Picture the Future!](#) (July 2002), is incorporated by this reference.

# **CHAPTER 3**

## **POPULATION AND GENERAL LAND USE**

## CHAPTER 3

# POPULATION AND GENERAL LAND USE

### 3.1 LAND USE & POPULATION

The land use and population element has been prepared in accordance with the Growth Management Act to address areas within unincorporated Douglas County. The land use element considers the general distribution of major land use forms and provides broad policy guidance for a range of land uses and activities not otherwise addressed within the specific chapter elements of the plan. This chapter also addresses historic population attributes, forecasts and land use assumptions used to project and designate plan components on a countywide basis.

The general focus of the Douglas County Comprehensive Plan is on a countywide, regional land use approach that factors in community and regional objectives, state goals, and projected future land use needs. The plan is a vision of how Douglas County should grow and develop while protecting its high quality of life, natural beauty and environmental quality.

### 3.2 LAND USE

#### 3.2.1 Introduction

Douglas County encompasses a diverse geographic region and existing land uses vary from the densely populated Wenatchee Valley to remote central areas of the County. Four major land use categories were developed in accordance with the Growth Management Act. They include urban growth areas, recreational areas, rural lands, resource lands and critical areas. These broad categories are further defined by specific land use designations representing existing development patterns, geographical areas growth patterns, lifestyles, and public needs.

#### 3.2.2 Urban Growth Areas

The GMA requires that each city/town within the County be included within urban growth areas (UGA). UGAs also include unincorporated areas that are characterized by urban growth and/or adjacent to areas characterized by urban growth in which urban services are provided and/or are planned to be provided over a twenty-year period. Planning for growth in this way accomplishes the efficient provision and utilization of public facilities and services and reduces the inappropriate conversion of resource lands into sprawling low density development. UGA capacity is based upon developable lands, environmental constraints, housing, forecasted population growth, residential density, economic development needs, transportation systems, public facilities and open space.

The six incorporated cities/towns within Douglas County and one industrial service area listed in Table 2.

**Table 2: Urban Growth Areas**

<b>Urban Growth Areas</b>	<b>Acres</b>
Bridgeport	1123
Coulee Dam (part)	98
Greater East Wenatchee (includes City of East Wenatchee)	8674
Mansfield	478
Rock Island	976
Waterville	775
Pangborn Industrial Service Area (PISA)	1,681
<b>Total</b>	<b>138,08</b>

Individual UGAs have been designated for each city/town in the County. Each of these UGAs also includes incorporated and unincorporated areas, except for the Town of Coulee Dam, which does not include any unincorporated areas in the County. Additionally, only a portion of the Town of Coulee Dam is located in the County; the majority of the Town located in Okanogan County and a smaller portion located in Grant County.

The City of East Wenatchee represents a small portion of the overall East Wenatchee Urban Growth Area. The Pangborn Industrial Service Area is also designated as a UGA and can be described as an island UGA. The Pangborn Industrial UGA does not include residential or commercial activities due to the incompatibility of such uses with the regional aviation airport and resource lands. The City of East Wenatchee, the City of Rock Island and the Pangborn Industrial Service Area are all located within the Greater East Wenatchee Sub-area Plan located in the southwest portion of the County. All urban growth areas include rights-of-way, critical areas, and future road corridors that are not considered for the buildable lands forecasts.

### **3.2.3 Rural Lands**

Rural lands are those areas outside of urban growth areas (UGA) that are not designated resource lands of long-term commercial significance. The rural element accommodates a range of land uses including a variety of residential densities that are compatible with the character of rural areas.

The rural land use designations have been developed to allow a broad range of development alternatives within the County. Rural designations are listed below and are discussed in detail in chapter 4.

- Rural Recreation
- Rural Resource 2
- Rural Resource 5
- Rural Resource 20
- Rural Service Centers
- Master Planned Resorts

### **3.2.4 Resource Lands**

Resource lands in Douglas County include agricultural and mineral lands that have been determined as having “long-term commercial significance”. Forestlands have not been included because they do not meet the minimum criteria for lands of “long-term commercial significance” within Douglas County. Resource lands designations are listed below. See chapter 5 for additional detail on resource lands criteria, size and location.

- Agriculture
  - Dryland Agriculture
  - Irrigated Agriculture
- Mineral Lands

### **3.2.5 Critical Areas**

Critical Areas are located throughout the County and act as an overlay for administrative purposes. The critical areas covered include:

- wetlands;
- aquifer recharge areas;
- fish and wildlife habitat conservation areas;
- frequently flooded areas; and
- geologically hazardous areas.

Best available science is used throughout this document for the development of policies and will be considered in developing implementation regulations. For additional details, see Chapter 10 Critical Areas.

### **3.2.6 Recreational Areas**

Recreational areas are located throughout the County. The Chelan County Public Utility District provides several recreation facilities along the Columbia River including:

- Kirby Billingsley Hydro Park is a 70 acre facility that provides sports fields, boat launching, and picnicking facilities. The park is connected to the southern end of the Apple Capital Loop Trail.
- Lincoln Rock State Park is located on Chelan County PUD property at Rocky Reach Dam. This 80 acre facility however is operated by Washington State Parks. It provides tent/recreational vehicle camp sites, sports fields, picnicking areas, boat ramps and docks, an amphitheatre, swimming area and children’s playground. The park is connected to the northern extension of the Apple Capital Loop Trail.
- Daroga State Park is a 90-acre camping park operated by Washington State Parks and provides tent/recreational vehicle camp sites, sports fields, picnicking areas, boat ramps, and a dock.
- Beebe Bridge Park is a 56 acre park managed by the Chelan County Public Utility District and provides tent/recreational vehicle camp sites, sports fields, picnicking areas, boat ramps, and short term boat moorage.

There are two golf courses in operation in the County. The Highlander Golf Course is 115 acres and is located between South Nile and Union Streets. Desert Canyon Golf Course is approximately 220 acres in size and is located on Brays Canyon Road.

### **3.2.7 Pangborn Memorial Airport**

Pangborn Memorial Airport is an essential public facility located approximately one mile east of the East Wenatchee Urban Growth Boundary. Land use goals and policies for the airport can be found in Chapter 11 Essential Public Facilities.

### **3.2.8 Industrial Lands**

The Pangborn Industrial Service Area is the only industrially designated land in the planning area. Pangborn Memorial Airport and several other industrial land uses are located within the Industrial Service Boundary. For additional details, see Chapter 12 Industrial Lands.

### **3.2.9 Rural Essential Public Facilities**

The rural essential public facilities designation is intended to accommodate essential public facilities that typically require a non-urban location with significant land area, such as the Greater Wenatchee Regional Landfill and Recycling Center and hydroelectric facilities. These kinds of public and quasi-public uses lend themselves to a separate land use designation as essential public facilities. For additional details see Chapter 11 Essential Public facilities.

### **3.2.10 Comprehensive Land Use Designations and Acreage**

Comprehensive land use designations indicate how the land will be utilized within a geographical area. The land use designations represent the most appropriate uses of land in the unincorporated areas of Douglas County and include urban, rural, resource and critical areas. Land use designations are described in Table 3 and are supported by the goals/policies set forth within the plan document and supporting materials. A Generalized Land Use Map is located at the end of this chapter.

**Table 3: Comprehensive Plan Land Use Designations**

	<b>Acres</b>	<b>County Total %</b>
<b>Rural Lands</b>		
Rural Recreation	888	0.08%
Rural Service Centers	1,392	0.12%
Rural Resource 2	1,053	0.05%
Rural Resource 5	29,927	2.54%
Rural Resource 20	423,942	36.16%
Rural Essential Public Facility	629	0.06%
<b>Sub total</b>	<b>457,830</b>	<b>39.1%</b>
<b>Resource Lands</b>		
Dryland Agriculture	666,032	56.81%
Irrigated Agriculture	34,025	2.90%
Mineral Lands	Overlay	
<b>Sub total</b>	<b>700,057</b>	<b>59.71%</b>
<b>Urban Growth Areas</b>		
Unincorporated UGA Areas	13,704	1.18%
<b>Sub total</b>	<b>13,704</b>	<b>1.18%</b>
<b>Sub Planning Area</b>		
Spanish Castle Master Planned Resort	931	0.08%
<b>Sub total</b>	<b>931</b>	<b>0.08%</b>
<b>Total</b>	<b>1,172,365</b>	<b>100%</b>

### 3.3 POPULATION AND DEMOGRAPHICS

Over the last four decades Douglas County has experienced rapid growth along the Columbia River corridor from Bridgeport to the Greater East Wenatchee area. Growth continues as a result of economic growth from agriculture production and manufacturing, tourism, the service industry, industrial development, and proximity to the Wenatchee and Seattle market area.

The 2010 U.S. Census of population for Douglas County was 38431, a 17.9 percent increase from the 2000 US Census. Of this number, 31,458 were located either in the incorporated communities or within Urban Growth Areas, leaving a total rural population of 6973. The majority of this rural population is located between of the East Wenatchee urban area and Rock Island, Bridgeport Bar/Crane Orchard area, Bray's Landing area and Orondo.

**Table 4: Historical Population Profile**

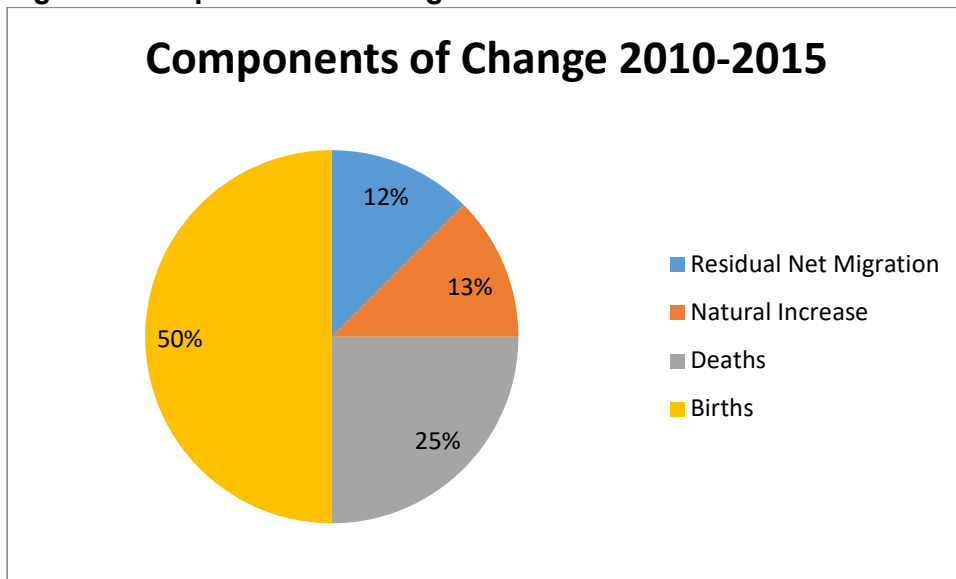
<b>Location</b>	<b>1960</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>
Douglas County	14,890	16,787	22,144	26,205	32,603	38,431
Urban Area			8,977	20,206	26,101	31,458
Rural Area			3,267	5,999	6,502	6,973
<b>Urban Growth Area Population</b>						
East Wenatchee	9,970	11,423	15,203	19,117	24,246	26,221
Bridgeport						2,430
Coulee Dam (part)						187
Mansfield						332
Rock Island						1,143
Waterville						1,145
<b>City/Towns</b>						
Bridgeport	876	952	1,174	1,498	2,059	2,409
Coulee Dam (part)	284	242	290	218	125	187
East Wenatchee	383	913	1,640	2,701	5,757	13,190
Mansfield	385	273	315	311	319	320
Rock Island	369	327	442	524	863	788
Waterville	1,013	919	908	995	1,163	1,138

Note: County and city/town data is derived from the US Census. The Greater East Wenatchee Planning Area, rural, and urban area population figures were generated using the US Census and other data sets maintained by Douglas County.

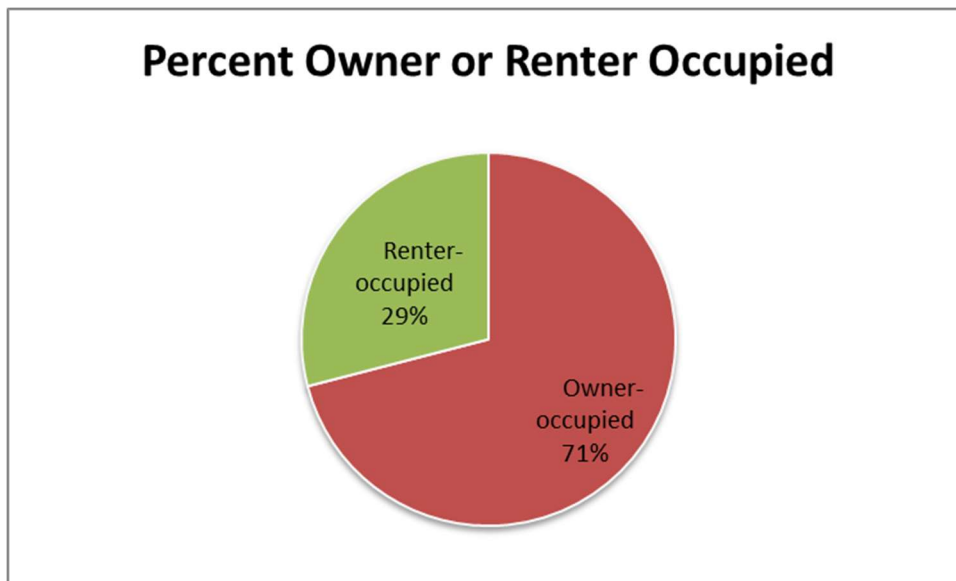
### **3.3.1 Population Characteristics**

Many factors including employment, average household size, housing prices and net migration can effect population and population density in the County. According to the US Census the average household size is 2.75, which is higher than the statewide average of 2.54. Figure 1 shows the components of population change between 2010-2015, Figure 2 shows housing Tenure, and Table 5 shows a housing unit forecast for the rural planning area based on the projected population.

**Figure 1 Components of Change 2010-2015**



**Figure 2 Housing Characteristics 2010**



**Table 5: Housing Unit Forecast for select areas**

	Persons per occupied housing units 2010	Projected population increase 2010-2040	Projected housing units needed
Douglas County	2.75	2,940	1,069

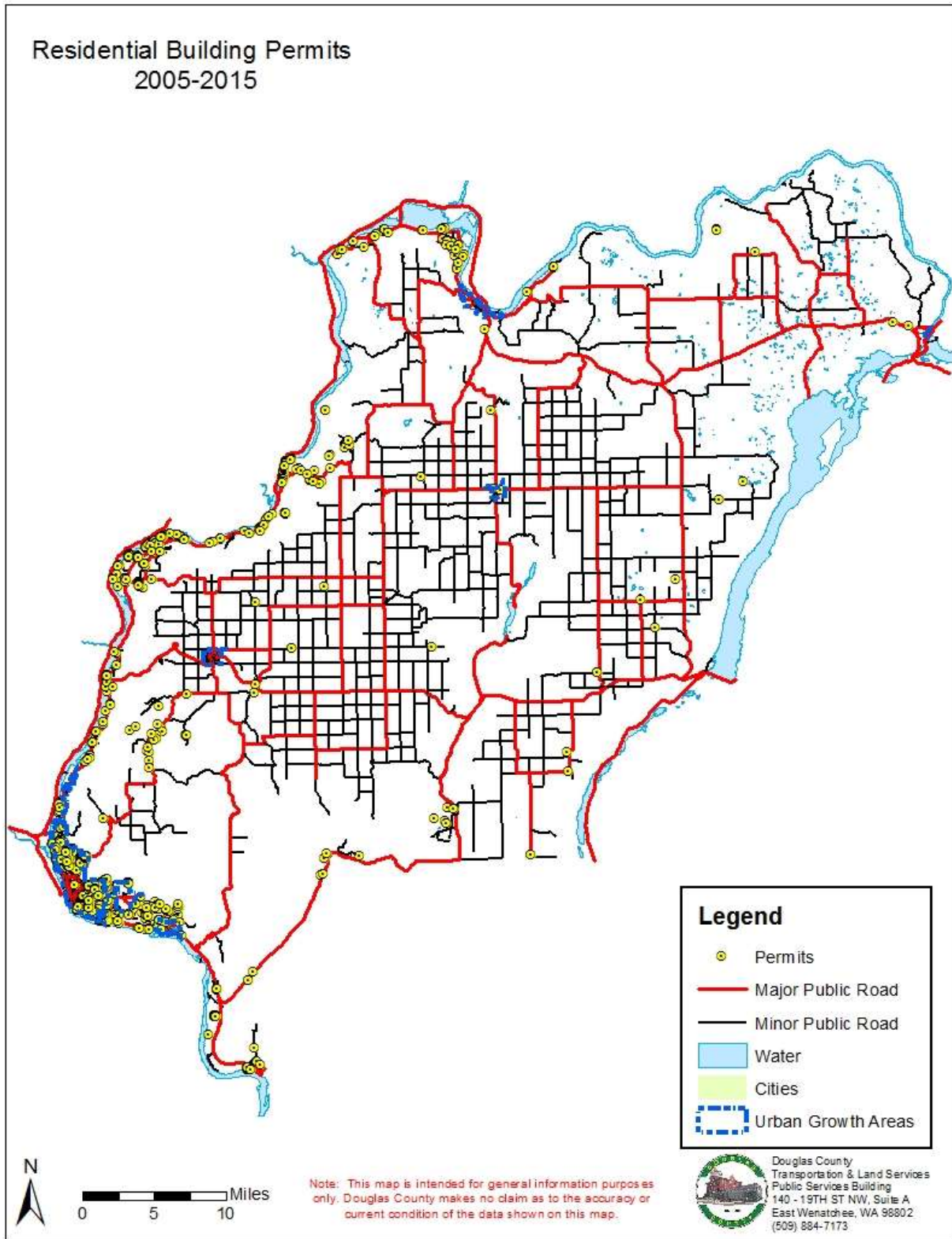
Note: The housing unit forecast is based on persons per occupied housing unit in 2000 for select areas and the percent of the county-wide population forecast for the county, planning area and each urban growth area as enumerated in Table 7. Table 5 assumes that the number of persons per occupied housing unit will not change from the 2010 US Census.

### **3.3.2 Population Centers and Other Identified Development Areas**

Between 2005 and 2015, 1,893 residential building permits were issued in the unincorporated areas of Douglas County. Single family permits accounted for 99% of the total permits issued. Approximately 65% of the permits were issued within East Wenatchee Urban Growth Boundary. The remaining permits were located in primarily along the Columbia River between Beebe Bridge and the Rocky Reach Dam, on the Bridgeport Bar and Crane Orchard Road, on Badger Mountain, and between the East Wenatchee Urban Growth Boundary and Rock Island.

Figure 3 shows the distribution of the permits throughout the County.

Figure 3



The majority of population growth will continue to take place within urban areas, especially the East Wenatchee Urban Area. The remaining population growth will occur within rural and agricultural areas located along the Columbia River and within rural service centers.

### **3.3.3 Population Projections/Forecasts**

Population projections play a significant role in developing the comprehensive plan and are the basis upon which comprehensive plans are developed. Forecasts or projections can help the County and city/towns anticipate future needs for a wide range of issues including land use allocations, transportation, capital projects and utilities. The guiding principles for allocating future population are historical growth trends, adopted policies and the supply of vacant buildable land.

Table 6 shows the anticipated population growth until 2040 for urban areas and the unincorporated areas of Douglas County.

<b>2010 – 2040 Population Projection</b>	<b>Allocation</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>
<b>Bridgeport</b>	6.00%	2,430	2,593	2,757	2,920	3,083	3,247	3,410
<b>Coulee Dam</b>	0.10%	187	190	192	195	198	201	203
<b>East Wenatchee</b>	72.00%	26,221	28,181	30,140	32,100	34,060	36,020	37,979
<b>Mansfield</b>	0.15%	332	336	340	344	348	352	356
<b>Rock Island</b>	2.50%	1,143	1,211	1,279	1,347	1,415	1,483	1,551
<b>Waterville</b>	1.25%	1,145	1,179	1,213	1,247	1,281	1,315	1,349
<b>Urban</b>	82%	31,458	33,690	35,922	38,154	40,386	42,618	44,849
<b>Rural</b>	18%	6,973	7,528	7,697	8,508	9,197	9,638	9,913
<b>Total</b>	<b>100%</b>	<b>38,431</b>	<b>41,218</b>	<b>43,619</b>	<b>46,662</b>	<b>49,583</b>	<b>52,256</b>	<b>54,762</b>

### **3.4 LAND USE & POPULATION ASSUMPTIONS**

The following land use population growth assumptions were used in developing the comprehensive plan.

- A. The majority of the projected population growth will be occur primarily within the urban areas and secondarily in rural areas such as rural service centers, rural recreation areas or in cluster developments where some or all community-type services while maintaining and supporting agricultural uses.
- B. Because of the difference in ownership patterns, lifestyles, amenities and services, a larger share of the County population will be located on the Columbia River corridor than on the upper plateau areas of the County.
- C. Areas surrounding the Greater East Wenatchee Urban Area will continue to house the largest share of the County population because of its regional nature.

- D. During the months of May through November, it is estimated that there is approximately 30% to 50% increase in the temporary population at any given time, specifically in irrigated farming regions such as the Brays Landing Area, Crane Orchard Road and Spanish Castle areas.
- E. The Bray's Landing area will experience an increase in population, because of the realization and visibility of the natural resource and recreational amenities in the area, as well as a significant supply of existing residential subdivisions (Desert Canyon, regional park facilities, the Columbia River, Lake Entiat Estates, Bauer's Landing, etc.).

### **3.4.1 General Land Use Goals & Policies**

**Goal: Maintain and improve the quality of life, attitude, and character of Douglas County by encouraging the long-term public commitment to the stewardship of historical/cultural resources, natural resources, critical areas and the full range of land uses desired by the public.**

#### Policies

- G-1 Encourage the development of innovative strategies to preserve and enhance/restore the many historical sites that are important to the heritage of Douglas County.
- G-2 Encourage the North Central Washington Museum and other groups or organizations interested in historic preservation to identify the important historical sites in Douglas County, including but not limited to cemeteries, schools and school sites, grange halls, commerce locations, etc.
- G-3 Provide incentives which make preservation of historic sites and buildings feasible, including the opportunity to re-locate buildings to more visible locations, making it possible to utilize them in promoting the tourist industry in the County.
- G-4 Ensure that the classification system for roads recognizes and supports the rural character.
- G-5 Provide an administrative review process for the division and transfer of land for agricultural purposes, including divisions that help sustain and support the family farm operation. Land divisions may include:
  - a) Ag-to-Ag land divisions between farmers solely for the purpose of agricultural activities will be conducted through a minimal, administrative review process to certify that all parcels created will be used only for agricultural purposes, and that no residential building lots will be created.
  - b) Family farm support divisions for the purpose of establishing new residential units for employees/owners/operators of a family farm will be conducted through an administrative review process to certify that any parcel created for a new, residential building lot will be used solely by persons working on and/or owning the farm operation.
  - c) Unsuitable land exception for the purpose of establishing a new residential unit on land that contains land that is unusable for agricultural purposes and the

establishment of a residence on that land will not affect neighboring agricultural operations.

- d) Lot size reduction for existing dwellings for the purpose of segregating off the existing residential unit in order to allow the property owner to keep the family home and sell or transfer the remainder of the land.

- G-6 Douglas County recognizes the importance of housing facilities for agricultural workers and encourages cooperative efforts among federal, state and local agencies, farmers and workers to find feasible solutions to problem situations.
- G-7 When farmers are able to provide agricultural housing on-site, the local regulations and requirements guiding the development of the housing facilities should promote the health and safety of the targeted inhabitants, while still recognizing the temporary, seasonal nature of the facilities.
- G-8 Douglas County encourages farmers, advocacy groups and other interested agencies/parties to investigate innovative, viable housing opportunities for agricultural workers, both on the farm site as well as within the community as a whole.
- G-9 Rural developments should only occur where adequate access to transportation systems, rural levels of utilities and facilities are available. Appropriate facilities/services may include domestic water, sewage disposal, fire and police protection, schools, and power, etc. depending on the scale and impact of the development.
- G-10 Impacts to fire and police protection, school(s) and other public services/utilities should be considered during the development review process for proposals within urban growth, rural, and agricultural areas.
- G-11 Establish siting and design criteria to provide buffering or other mechanisms that will protect adjacent land uses from potential conflicts between incompatible uses.
- G-12 Develop a sliding-scale type of review process whereby less intense (particularly agriculturally related) uses are considered administratively and the higher intensity uses are subject to a public review.
- G-13 Promote public access to lakes, rivers, creeks and other water bodies through signage, maps, public information programs, trails, scenic overlooks, picnic areas and other mechanisms.
- G-14 Encourage efforts to maintain scenic open space, cultural, historic and heritage resources.
- G-15 Encourage the operation of rural commercial businesses, natural resource related industries, recreation and tourism activities, cottage industries, small scale business, and home occupations that are consistent with existing and planned land use patterns and are of an appropriate size and scale to maintain rural character.

### **3.5 Water**

Water rights are property rights held by individual citizens, irrigation entities, municipalities, public and private utilities and governments. Water use of any kind is subject to the "first in time, first in right" clause, originally established in historical western water law and now part of Washington State law in RCW 90.023.010 Surface Waters and RCW 90.44.035 Ground Waters. This means that a senior right may not be harmed or impaired by use of a junior right.

A hydrogeologic review of the county concludes that water occurs primarily as ground water in the interior and as surface water along the Columbia River and that all precipitation occurring within the County moves as groundwater from topographically elevated upland areas towards the major surface drainages (e.g. Beaver Creek, Foster Creek, McCartney Creek, etc.). There may be transfers of water between groundwater and streams, but ultimately, all water originating within the County discharges to the Columbia River. Based on these hydrogeologic conditions, there do not appear to be specific areas of concern within the County. (Pacific Groundwater Group, 2017)

The hydrogeologic analysis and discussion with the Washington State Department of Ecology and the Chelan-Douglas Health District have provided no indications at this time that senior water rights are harmed or impaired in the County. Residential development in the rural areas of the County often obtain water through permit exempt wells. There are no indications that this practice could not continue so long as senior water rights are not harmed or impaired. There is also no indication that permit exempt wells have had a negative impact on fish and wildlife habitat conservation areas.

If water rights are threatened or water is not available, residents of the County have access to water either leased from the Lake Roosevelt water supply or purchased from the Sullivan Lake Water Bank. The Washington State Department of Ecology through the Office of the Columbia River manages both water supply options.

The Growth Management Act requires Douglas County to protect the quantity and quality of ground and surface water. The County accomplishes this requirement by continuing to work collaboratively with the Chelan-Douglas Health District to ensure that all new development using new or modified groundwater withdrawals have an adequate water supply and that the quality is suitable for the intended domestic use. This collaborative effort will help the County determine that property owners are meeting the existing legal requirement for demonstrating an adequate water supply and water quality.

#### **Policy**

W - 1            Douglas County will work collaboratively with the Chelan-Douglas Health District to review land divisions and development permits to ensure adequate water is available and that the quality meets the minimum acceptable water quality standards in WAC 246-291-170.

## 3.6 LAND USE MAP

# **CHAPTER 4**

## **RURAL LANDS ELEMENT**

## CHAPTER 4 RURAL LAND USE ELEMENT

### 4.1 RURAL LAND USE

The rural land use element guides the future use and development of the rural areas of Douglas County. Rural areas are considered the unincorporated areas outside of the urban growth areas and not designated as resource lands. Rural development activities are comprised of small unincorporated rural communities, farms, rangeland, forested areas, isolated rural commercial and industrial development and regionally important recreation areas that have limited services and very low rural densities. The rural element seeks to protect the rural character of the County by reducing the inappropriate conversion of undeveloped land into sprawling, low-density development and assuring the protection of the natural environment, historic properties and rural lifestyles. The ways in which rural character will be accommodated include encouraging cluster developments, revitalization of the existing rural service centers, master planned resorts and other low impact development that minimizes impacts to resources valued by the community.

The rural element should provide for a variety of rural densities, uses, essential public facilities and rural governmental services needed to serve existing and projected rural populations. Rural development may include infill development or redevelopment of existing commercial, industrial, residential, or mixed-use areas, that may be characterized as shoreline development, villages, or rural service centers. To achieve a variety of rural densities and uses, counties may provide for clustering, density transfer, design guidelines, conservation easements, and other innovative techniques that will accommodate appropriate rural densities and uses that are not characterized by urban growth.

This chapter is broken down into four sections and includes goals and policies for designated rural areas, rural service centers, rural development and master planned resorts.

#### **4.1.1 Rural Lands Goals and Policies**

**GOAL: Provide a balance between maintaining the existing, traditional pattern of uses in the rural areas of Douglas County, including agricultural activities, while still providing opportunities for future, compatible development.**

#### **Policies:**

- R-1. Rural areas are those areas not designated for urban growth, agriculture, forest, or mineral resources. However, agricultural activities, farming/ranching, forestry, mineral and other similar activities are inherent within this designation.
- R-2. Continue to provide for the projected rural population growth through MPRs, family farm divisions, limited land segregation, lot size reductions for existing dwellings, Ag-to-Ag Transfers, rural clustering and rural service centers.
- R-3. Establish land use designations that represent rural character and that protect the integrity of rural areas.

- R-4. Concentrations of development will be encouraged in designated Master Planned Resorts (MPRs), fully contained communities, cluster developments and/or in designated rural service centers.
- R-5. Encourage a diverse choice of housing types for all economic levels.
- R-6. Encourage development in rural areas to be served by rural levels of service.
- R-7. All plats, short plats, development permits and building permits issued for development activities within five hundred feet of lands designated agriculture and/or mineral resource lands must contain a notice that the subject property is adjacent to, designated resource land on which a variety of commercial activities may occur that are not compatible with residential development for certain periods of limited duration.
- R-8. Establish in consultation with cities, siting criteria in rural areas for locating major industrial developments that require a parcel of land so large that no suitable parcels are available within urban growth areas or are identified as natural resource based industry. Siting criteria should be consistent with RCW 36.70A.365.
- R-9. Rural lands adjacent to urban growth areas already characterized by urban growth, which would have access to a full range of urban governmental services, should be considered as rural transitional areas for future urban growth.

## **4.2 RURAL SERVICE CENTERS**

Rural service centers are those areas where historic, unincorporated communities or older, recreationally-oriented subdivisions are characterized by compact rural type densities and may offer some urban services such as roads, community water systems, and limited commercial uses. They are generally small, compact, isolated rural community centers that primarily exist to provide housing, convenience goods and services to residents in and around the area. It is intended that these areas continue to be a mixture of land uses, particularly residential and limited neighborhood businesses and services. These areas will also be accommodating needed agriculturally related commercial, cottage industries, tourist related uses, recreation and/or light industrial uses. The unincorporated areas to which this designation applies include the Downing Townsite, Rocky Butte Townsite, Douglas, Farmer, Orondo, Palisades, Withrow, and Lake Entiat Estates.

### **4.2.1 Rural Service Center Goals and Policies**

**GOAL: Promote the continuation and enhancement of the existing rural service centers in order to preserve their multi-use function.**

#### **Policies:**

- RSC-1. Encourage mixed land use patterns that currently exist within the rural service centers by clearly establishing what kinds of uses will be permitted and which will be prohibited.
- RSC-2. Provide incentives for development of a variety of housing types, including farm worker housing, and increased residential densities within the rural service centers, and encourage the refurbishing and updating of the existing structures.

- RSC-3. Small retail and/or service oriented commercial uses, tourist, agriculturally related commercial uses, recreation, cottage industry, and resource industries will be encouraged within the rural service centers to serve the surrounding residents and the traveling public.
- RSC-4. Encourage agriculturally related commercial and/or industrial uses to locate in established rural service centers.

### **4.3 RURAL DEVELOPMENT**

Measures governing rural development are dependent on a number of factors including the type of rural development activity and the intensity of rural development anticipated. Conditions for rural development include provisions that protect the rural character and visual compatibility with the surrounding rural areas; reducing the inappropriate conversion of rural lands to sprawling low-density development; protecting against conflicts with designated agricultural, forest and mineral resource lands; and protecting critical areas. It is the intent of this comprehensive plan to balance resource uses, the natural environment and rural development opportunities. Rural land use designations include Rural Recreation, Rural Resource 2, Rural Resource 5, and Rural Resource 20.

#### **4.3.1 Rural Development Goals and Policies**

**GOAL: Provide opportunities for continued smaller scale developments outside UGAs that will be compatible with and continue to preserve, maintain and enhance the vital agricultural uses in the County.**

#### **Policies:**

- RD-1. Designated rural areas will be utilized to reduce the inappropriate conversion of agricultural lands, prevent sprawling low-density development and assure that rural development is compatible with surrounding rural and agricultural areas. A variety of innovative techniques may be utilized including clustering, density transfer, design guidelines and conservation easements to protect rural character.
- RD-2. Rural scale developments of very low density for residential purposes may be allowed on rural lands, subject to development criteria and open space requirements to protect rural values and buffer adjacent resource use/critical areas.
- Whenever feasible, rural developments will be encouraged to utilize community systems for domestic water and sewage disposal in order to reduce environmental impacts and to more efficiently and cost effectively provide these needed services.
- RD-3. Development and recreational opportunities in rural shoreline and other rural areas shall minimize potential adverse impacts to water quality, slope stability, vegetation, wildlife and aquatic life.

- RD-4. Rural developments will not impact existing public facilities/services to the extent that the level of service for that facility is reduced below the adopted threshold and/or an acceptable operation capacity.
- RD-5. The costs associated with implementing a rural development and providing the necessary utilities, facilities and/or services will be borne by the developer.
- RD-6. Rural developments should consider and comply with the spirit, intent and requirements of all the chapters and sections of this comprehensive plan, including but not limited to, the Resource Lands Element and Resource and Critical Areas Conservation Element.
- RD-7. Buffers for clustering or other development activities may be required between the rural development and the resource activity or any critical areas when clustering development. Buffers will be provided by the development, as opposed to being on the resource lands or critical areas of adjacent property ownerships unless specifically approved through the development process.
- RD-8. Where there is a requirement to maintain a certain percentage of a development in open space/critical areas, that activity may remain in the ownership of the developer/property owner, or it may be transferred to other organizations, provided the land will remain or be utilized in accordance with the development plan.
- RD-9. Divisions of land that create parcels twenty acres or greater in size should be exempt from the plat review process.
- RD-10. Clustering of residential development will be allowed in areas designated rural, with the exception of areas designated as limited areas of more intense rural development. Clustering allows the portion of an area that is most conducive to development while providing the opportunity to protect resource operations, rural character and critical areas consistent with the provisions of the Growth Management Act and the goals and policies of the comprehensive plan. Rural cluster developments shall be consistent with policies A-12 through A-14, in the Resource Lands Element.

#### **4.3.2 Implementation**

Land classified as rural will be considered in context of the overall comprehensive plan and many other factors such as the availability of some existing public facilities/services, such as roads, fire service, schools, accessibility, critical areas and natural features.

**Rural Recreation --** The purpose of this designation is to provide the opportunity for the development, redevelopment, and infill of existing intensely developed rural recreational areas for residential, recreation, and tourist development consistent with the rural character in the vicinity. Uses may include intensification of existing residential development or new development of small scale recreational or tourist uses, provided uses rely on a rural location and setting and do not encourage urban type development or services.

- a) Areas are clearly identifiable as existing intensely developed rural recreational development where a logical boundary can be delineated and set by the built environment;

- b) Boundaries do not permit or encourage a new pattern of sprawling low density or urban type development; and/or
- c) The predominate parcel size is generally less than one acre in size.

**Rural Resource 2 – 1 unit per 2 acres** -- The purpose of this designation is to recognize existing areas that are transitioning, at varying rates, from rural to urban, have existing water service, and are appropriate for areas of increasing density. . Clustering or other innovative techniques for residential lots are encouraged.

- a) Areas are located in close proximity to an urban area, but are either beyond the present availability of a full range of urban services or are not yet urban in character; and/or
- b) Existing densities are generally less than one acre to less than five acres in size.

**Rural Resource 5 – 1 unit per 5 acres** -- The purpose of this designation is to provide an area for a variety of rural lifestyles, hobby farms, densities and open space, while protecting the rural and resource characteristics in the vicinity. This designation provides opportunities for compatible rural land uses, is sensitive to the site's physical characteristics and may serve as an urban transition area adjacent to urban growth boundaries. Clustering or other innovative techniques for residential lots are allowed if the density does not encourage urban levels of service and provides significant open space and protection of resource lands and critical areas.

- a) Areas may be located adjacent to urban growth areas or existing development of higher densities and where appropriate, may serve as a transition and buffer area between commercial agricultural areas and other land uses;
- b) May be located where there currently is a range of rural densities or land parcel sizes generally less than twenty acres in size, including along the Columbia River; and/or
- c) In areas that have adequate rural levels of services available such as roads, schools, and fire protection.

**Rural Resource 20 – 1 unit per 20 acres** -- The purpose of this designation is to encourage and maintain the county's rural character. This designation may have rangeland use and buffers resource areas from incompatible activities. Clustering or other innovative techniques are encouraged, provided significant areas are retained in open space for grazing, deer migration corridors, critical habitat areas and/or other similar uses.

- a) Areas are generally located adjacent to designated agricultural lands;
- b) Areas may have grazing land characteristics or have sensitive critical area/environmental issues;
- c) Land parcels are at least twenty acres or greater in size and are often several hundred acres in size;
- d) They may be located in remote areas and/or areas with limited opportunities for development; and/or
- e) Areas are often located outside of fire service areas, have minimal improved road access or have other site constraints.

**Rural Essential Public Facilities** -- The purpose of this designation is intended to accommodate essential public facilities that typically require a non-urban location with

significant land area, such as the Greater Wenatchee Regional Landfill and Recycling Center and hydroelectric facilities. These kinds of public and quasi-public uses lend themselves to a separate land use designation. Development and performance standards ensure compatibility with and protection to surrounding properties and mitigate the impacts of traffic congestion, noise, glare, vibration, odors, and airborne particulates. Facilities shall not create a need for the extension of urban governmental services, nor provide for the premature conversion of adjacent agricultural lands. Potential impacts to critical areas and archaeological and/or cultural sites must be considered and addressed.

- a. Served by the full range of services necessary to support the use;
- b. Located outside of an urban growth area, must be self-contained or with extended services in a manner that does not promote additional development or premature conversion of lands to other uses;
- c. State-mandated siting criteria incorporated where applicable;
- d. Not located on resource lands or critical areas if incompatible;
- e. Areas may be located adjacent to designated agricultural lands.

#### **4.4 MASTER PLANNED RESORTS**

Douglas County is unique in its diverse topographical and geologic formations and various microenvironments that make some of its rural areas well suited for the development of major recreational activities.. Based on the guidance provided in that section and on the unique characteristics of MPRs, and policies; implementation criteria was established to locate and approve MPRs.

##### **4.4.1 Master Planned Resort Goals and Policies**

**GOAL: Provide opportunities for Master Planned Resorts (MPRs) that will allow a mixture of recreational, commercial, lodging and resort-residential land uses that are appropriate for the site.**

Policies:

- MPR-1. Encourage MPRs, which do not conflict with existing adjacent land uses, and in those cases where conflicts may be created, ensure that appropriately planned buffers are provided.
- MPR-2. Provide a process that will encourage MPRs to be high quality developments that are shown to be beneficial to the overall economy of the area and Douglas County, as well as being environmentally sound and appropriate for the site.
- MPR-3. Plans developed for MPRs will be consistent with the other elements of this comprehensive plan, particularly the designated Resource Lands Element.
- MPR-4. MPRs will be separated physically and aesthetically from the nearest existing developed areas.
- MPR-5. New urban or suburban type land uses, including commercial activities, not associated with a MPR will be prohibited in the surrounding vicinity, except in areas otherwise designated for urban growth.

- MPR-6. When a MPR seeks to maintain a portion of resource use, it will be encouraged to locate on the least productive of the resource lands, and open space will be made part of that development in order to buffer and protect the adjacent resource use.
- MPR-7. MPRs will avoid, whenever possible, any critical areas or at a minimum will mitigate possible impacts to those critical areas, as directed in the Resource and Critical Areas Conservation element of this plan.
- MPR-8. Necessary infrastructure for the resort development will be provided by the proponent at the time of development, and will be consistent with the size of the development.
- MPR-9. Development plans will seek to blend the site development and architecture with the natural character and features of the land, including but not limited to topography, vegetation, geology, slope, soils, cultural heritage, etc. to keep the facility compatible with the surrounding area.
- MPR-10. Encourage site planning that emphasizes cluster developments with low impact site design that reflects the natural land characteristics wherever practical, and define these clusters with surrounding open space areas.
- MPR-11. Encourage the MPR to employ local citizens and provide affordable housing for its employees where appropriate for a given MPR site.
- MPR-12. The MPR will seek to internalize and provide needed facilities, services and utilities which avoid, where feasible, impacts on existing public systems such as transportation, water, sewer, power, etc.
- MPR-13. The MPR must have a primary focus on visitor accommodations, including short-term visitors and second homes, as opposed to full time residential subdivisions. Some short-term visitor accommodations will be included in the initial phases.
- MPR-14. Where the scale and location of the MPR makes it economically feasible, the MPR may also provide basic convenience goods and services to resort guests to reduce off-site traffic demands.
- MPR-15. All on-site and off-site infrastructure, utility and public service impacts will be appropriately mitigated. Capital facilities, utilities and services can be provided in phases to meet the needs of different development phases. To avoid over-sizing, it may be appropriate for these improvements to be designed by total loads rather than peak demands.
- MPR-16. It is incumbent upon the MPR to provide environmental and archaeological protection of the site.

- MPR-17. When feasible the MPR will emphasize internal transit-oriented site planning to provide resort guests with convenient linkages between recreational activity areas and housing/lodging facilities through such means as mini-shuttles, bike paths, hiking paths, equestrian trails that minimize an extensive, paved automobile circulation system.
- MPR-18. Community sewer, water, police and fire facilities may be provided on-site, but will be sized to meet only the needs of the development. Existing public service purveyors may provide services as long as costs related to service extensions and any capacity increases generated by the development are borne by the development. MPR sewer and water facilities will not serve intervening uses, except those specifically designated in the comprehensive plan.
- MPR-19. School facility, solid waste service, emergency medical service, storm drainage facility, parks and recreation and any other public service impacts will be addressed and appropriately mitigated by the MPR.
- MPR-20. Coordinate the transportation/circulation system, emergency services plan, signage and general access provisions to assure quick response in case of emergency.

# **CHAPTER 5**

## **RESOURCE LANDS ELEMENT**

## **CHAPTER 5**

### **RESOURCE LANDS ELEMENT**

#### **5.1 RESOURCE LANDS**

Natural resource lands include agriculture, forest and mineral lands of long-term commercial significance because of their growing capacity, productivity, and soil composition. Natural resource lands generally cannot be re-created if they are lost to development or if they are mismanaged. These lands also provide aesthetic, recreational, and environmental benefits to the public while contributing to the diverse character of the County.

Douglas County identified resource lands of long-term commercial significance using distinctive characteristics that includes soils, climatic conditions, geologic structure, location and other unique identifiers characteristic of the resource and as set forth in the Act. Agricultural and mineral resource lands of long-term commercial significance were located throughout the county. However, while some forest lands are located in Douglas County they do not meet the definition of forest lands of long-term commercial significance.

#### **5.2 AGRICULTURAL RESOURCE LANDS**

##### **5.2.1 Agricultural Lands**

Agriculture represents a significant economic segment in Douglas County. The diversity of the agricultural industry provides the County with a relatively stable economic base and contributes to the areas' cultural heritage and quality of life.

The goals and policies in this element recognize the importance of agricultural lands and activities to Douglas County. Existing and future agricultural activities are permanent land uses and provide significant economic benefit within the community. It is important to preserve and encourage these activities as viable operations and to protect them from the encroachment of incompatible uses, particularly through innovative development techniques.

##### **5.2.2 Designation of Agricultural Resource Lands**

The designation of agricultural lands of long term commercial significance shall be based upon consistency with each of the following three factors, reviewed in the sequential order listed below:

- a. The land is not already characterized by urban growth based upon analysis consistent with WAC 165-196-310 (February 8, 2011).
- b. The area is primarily devoted to the commercial production of agricultural products enumerated in RCW 36.70A.030(2). This factor shall evaluate whether lands are well suited to agricultural use based primarily on their physical and geographic characteristics including one or more of the following categories:
  1. Lands classified as having a total rangeland vegetation production of greater than or equal to 800 lbs of dry weight per acre.
  2. Land has been utilized for grazing in the commercial production of livestock within the last twenty years.

3. Land currently enrolled within an agriculture conservation program such as the Conservation Reserve Program (CRP) Conservation Reserve Enhancement Program (CREP).
  4. Lands generally used for the production of hard and soft fruit products, vegetables, or grain crops such as hay, grass, silage, etc., which are located within an irrigation district and currently receive irrigation water or land that receives irrigation water from a private irrigation system or groundwater well supply.
  5. Land that contains soil characteristics of irrigated or non-irrigated Class I, II, III and IV as classified and defined by the Natural Resources Conservation Service Land Capability Classification System.
  6. Land identified as lands of State-wide importance.
  7. The classification of prime and unique farmland soils as mapped by the Natural Resources Conservation Service.
- c. The land has long-term commercial significance for agricultural production as indicated by the following criteria. Agricultural lands of long-term commercial significance do not have to comply with all of these criteria, but the county must be satisfied that it has long term commercial significance.
1. The classification of prime and unique farmland soils as mapped by the Natural Resources Conservation Service.
  2. The availability of public facilities, including roads used in transporting agricultural products.
  3. Tax status, including whether lands are enrolled under the current use tax assessment under chapter 84.34 RCW and whether the optional public benefit rating system is used locally, and whether there is the ability to purchase or transfer land development rights.
  4. The availability of public services.
  5. Relationship or proximity to urban growth areas.
  6. Predominant parcel size.
  7. Land use settlement patterns and their compatibility with agricultural practices.
  8. Intensity of nearby land uses.
  9. History of land development permits issued nearby.
  10. Land values under alternative uses.
  11. Proximity to markets.

### **5.2.3 De-designation of Agricultural Resource Lands**

The following policies provide the criteria and process for removing land from designation as agricultural lands of long-term commercial significance.

1. Removal of properties from designation as agricultural lands of long-term commercial significance must be evaluated against the same criteria as for initial designation (see Section 5.2.2 above).
2. Removal of properties from designation as agricultural lands of long-term commercial significance shall be processed as an area-wide amendment and must meet one or more of the following criteria:
  - a. A change in circumstances pertaining to the comprehensive plan or public policy related to designation criteria in Section 5.2.2;

- b. A change in circumstances to the subject property, which is beyond the control of the landowner and is related to designation criteria in Section 5.2.2;
- c. An error in designation or failure to designate;
- d. New information on natural resource land or critical area status related to the designation criteria in Section 5.2.2;
- e. A change in population growth rates or the removal is for the purpose of expanding an Urban Growth Area (UGA), provided that the jurisdiction proposing the de-designation and expansion of the UGA has demonstrated that such expansion is consistent with RCW 36.70A.110 and WAC 365-196-310 (February 8, 2011).

#### **5.2.4 Agriculture Goals and Policies**

**GOAL: Agricultural uses will be preserved, enhanced and maintained to the greatest extent possible feasible outside of Urban Growth Areas (UGA).**

##### Policies:

- A-1. The County will encourage the retention of agricultural lands of long-term commercial significance, including rangelands and will prevent haphazard growth into these areas.
- A-2. Douglas County will encourage the maintenance and viability of the family farm. The concept of large-scale “corporate farms” is not characteristic of farming in Douglas County. Smaller sized farms may be encouraged to support changing family and “boutique” style farming and lifestyles.
- A-3. Protect agricultural lands and activities from conflicting non-farm uses and influences.
- A-4. Douglas County will encourage continued agricultural activities within areas designated as agricultural and preserve right-to-farm policies as set forth by the County. Ensure that public policies minimize disruption of agricultural activity.
- A-5. Encourage the use of agricultural value assessment, open space designations, and/or other tax benefits that help retain the economic viability of farming practices.
- A-6. Designate “commercially significant agricultural resource lands” based on the U.S. Soil Conservation Service classification for farmland soils, identified lands of statewide importance, and other guidelines.
- A-7. Preserve agricultural tracts that are adequate in size, in relation to the particular activity, to maintain the economic viability of farming operations.
- A-8. In the event of a conflict between residential uses and the normal agricultural activities of a preexisting agricultural use, County support will be in favor of the agricultural use.
- A-9. Encourage farm-based businesses as an accessory use in agriculturally designated areas. A farm-based business is an on-farm enterprise devoted to the direct marketing of unprocessed and/or value-added agricultural products that are produced, processed and sold on-site as the primary activity. Farm based businesses are intended to

supplement farm income and may include other limited secondary services and/or retail activity.

- A-10. Facilitate resource-based economic activities throughout Douglas County in areas that have poor soils, or are not otherwise suitable for agriculture and that minimize conflicts with agriculture and adjacent agricultural resource lands.
- A-11. Encourage the location and siting of agricultural support activities, such as commercial granaries, storage buildings, packing sheds and chemical fertilizer operations, within agricultural areas, rural service centers and resource industrial areas.
- A-12. Clustering of residential development will be allowed in areas designated agriculture. This will provide for an innovative land division technique that allows development to occupy that portion of an area that is most conducive to development while providing the opportunity to protect resource lands, rural character and critical areas consistent with the provisions of the Growth Management Act and the goals and policies of the comprehensive plan.

Cluster divisions will be processed as either a subdivision or a short subdivision in accordance with the established procedures for those land divisions under RCW Chapter 58.17 and Title 17 of the Douglas County Code and in conformance with other applicable standards of the Douglas County Code.

Cluster divisions create two types of lots:

- a. Individual lots that meet minimum dimensional standards, and
- b. The reserve lot that is the portion of a proposed cluster division that is intended for one or a combination of the following uses: critical area, agriculture, forestry, open space, historic/cultural area, undeveloped area, recreation, and/or other similar use. The reserve lot is included as a lot for the purpose of determining the applicable land division process in accordance with RCW Chapter 58.17. Lots created by a cluster division may be further divided not more frequently than five (5) years from the date of final plat approval. Statements disclosing the proximity of resource land activities will be required to be recorded on deeds of record if applicable.

The following standards will be incorporated into development regulations that implement cluster divisions:

- a. The maximum density permitted for cluster divisions will be the same as specified for the zoning district.
- b. Reserve lots shall be at least equal in size to seventy (70) percent of the original parcel of record for the cluster division.
- c. The reserve lot shall be contiguous unless no other reasonable alternative exists.
- d. Appropriate separation between individual lots and adjacent resource operations will be necessary where a reserve lot does not provide a buffer.
- e. A management plan will be required for the reserve lot.

- f. Structures/buildings will not be allowed within reserve lots except as described in the management plan and necessary for associated recreational uses, historic buildings, public facilities or agricultural accessory structures essential to an agricultural use.
- g. Residential density shall not be transferable from rural to irrigated agriculturally designated lands. Residential density within irrigated agriculturally designated lands is encouraged to be located within rural land use designations of a development.

- A-13 The intent of clustered land development is to provide limited opportunities for development at non-urban densities. These developments shall not be used as justification for reclassification to higher density land use designations.
- A-14 Allow for the clustering of existing lots through the exempt parcel transfer process, lot size reduction for existing dwelling, and limited lot segregation process for use in circumstances where the construction of a residence will not affect neighboring agricultural operations.
- A-15 Farm practices will be consistent with best management practices for the industry.
- A-16 Agricultural lands considered for acquisition for public, recreational, scenic and/or park purposes, or for wildlife habitat, will first be evaluated for their impact on commercial agricultural and socioeconomic structure of the immediate area, and of the County as a whole.
- A-17 Consider use of the National Resource Conservation Service's Land Evaluation and Site Assessment (LESA) system to aide in evaluating the appropriateness of changes in land use from agricultural to non-agricultural (e.g. when siting a cluster development or MPR).
- A-18 Encourage the control of noxious weeds in all affected areas of construction and development projects.

**5.2.5 Implementation:**

Agricultural lands are classified in the following two categories:

Dryland Agricultural - lands used primarily for grain, feed, crop production livestock raising, livestock grazing; and lands in conservation programs (i.e. CRP, CREP) programs. The majority of this land is found on the plateau areas of the County. The density of the district is one unit per twenty acres, with a minimum lot size of twenty acres, except as otherwise noted in this document for clustering and agricultural support activities.

Irrigated Agricultural - irrigated lands used for the production of hard and soft fruit products, as well as forage and grain crops such as hay, grass, silage, etc. The majority of these lands are located adjacent to the Columbia River and Moses Coulee areas.

Commercial Agriculture – 5 The purpose of this designation is to protect lands that meet the criteria for agricultural lands of long term commercial significance and to protect the

primary use of the land as agriculture and agricultural related activities. Areas of this designation are often located adjacent to urban growth areas or existing development of higher densities and is intended as a buffer area between commercial agricultural areas and developing areas. The density of the district is one unit per five acres, with a minimum lot size of five acres, except as otherwise noted in this document for clustering and for agricultural support activities.

Commercial Agriculture – 10 The purpose of this designation is to protect lands that meet the criteria for agricultural lands of long term commercial significance and to protect the primary use of the land as agriculture and agricultural related activities. The density of the district is one unit per ten acres, with a minimum lot size of ten acres, except as otherwise noted in this document for clustering and for agricultural support activities.

### **5.3 MINERAL RESOURCE LANDS**

#### **5.3.1 *Mineral***

The mining industry in Douglas County consists primarily of sand and gravel mining operations. Other types of mineral resources have been identified such as bentonite, and smaller amounts of precious metals. However, these resources have not been fully developed or are not of commercial significance. Development of mineral resources should be designed to be compatible with existing development patterns, infrastructure and critical areas and to protect mineral resource lands from incompatible land uses.

The population of Douglas County is projected to steadily grow during the next twenty years. This growth requires the County to identify and protect mineral deposits. The Washington State Department of Natural Resources estimates that the per capita demand for construction aggregate in Washington State is approximately 13.5 tons per year. The consumption of mineral resources is directly tied to the population growth. The purpose of this section to provide the goals, policies, and implementation criteria to protect existing mineral areas and to ensure that future mineral resource sites contain sufficient commercial quantities and are located in areas that will not impact adjacent land uses, critical areas, and scenic resources.

There are several hundred active and inactive rock, sand and/or gravel mines in the County. Of these, 25 are permitted through the Washington Department of Natural Resources. These sites range in size from 5 acres to 320 acres with an average permitted size of 35 acres. Of these permitted sites 72 percent are used for construction aggregate (sand and gravel) and the remainder is for rock materials.

A large mineral resource area has been designated east of the Baker Flats area. This designation is in a unique area because of its relationship to the scenic rock bluffs of the Columbia River Valley. The protection of the character of the bluffs in this scenic corridor and the environmental conditions are a high priority. Based on this, the mineral resource designation has been placed on the top of the valley wall. The area between the mineral resource designation and the urban growth area to the west is where the scenic bluffs and talus slopes are generally located. This particular area is not shown as a mineral resource designated site. This area is considered a transitional area where limited mining may occur only to establish a limited number of routes to transport the resource and based on acceptable mitigation which blends with the topographic and geologic conditions and protects the scenic corridor and critical areas. Mitigation dealing with

aesthetic and environmental protection shall ensure that the face of the bluffs and the rock cliff talus areas are protected and that any disturbance to the area is minimal.

Mining in this area is considered a benefit to the Greater East Wenatchee Area. This is an area with a known mineral resource which may last 50 years or more. Currently, there are existing batch plants in the Baker Flats area which could remain for the long-term. Thus, siting batch plants in other areas of the county should be minimal because the existing sites will be semi-permanent. This general area is important because it includes land zoned for industrial purposes, lies near major transportation routes and can economically serve the urban populace.

### **5.3.2 Identifying Mineral Lands**

The criteria used to classify mineral resource lands were based on the guidelines provided by the state and an analysis of local conditions. US Geological Survey Maps, Department of Natural Resource surface mining data, Natural Resource Conservation soils data and land use data were reviewed to determine current and potential mineral resource lands of long-term commercial significance. The following factors were used to identify mineral resource lands of long-term commercial significance and are not in order of priority.

- A. All existing permitted sand and gravel extraction sites (pits), and other areas designated on the “Mineral Resource Map” shall be designated as mineral lands of long-term commercial significance.
- B. Other mineral resource areas may be approved as mineral resource lands of long-term commercial significance and designated on the “Mineral Resource Map” when it can be demonstrated as having a significant commercial supply and meet the review guidelines established below. Approval is subject to an administrative review process or annual comprehensive plan amendment.
- C. Areas will be classified as mineral resource lands based on geologic, environment, commercial quality and volume of the resource, topographic characteristics of the site, visual aesthetics, economic factors, compatibility with existing land uses and land ownership patterns. The following categories of mineral resource lands are established for the purpose of classification:
  1. Metallics
  2. Sand and Gravel
  3. Other Minerals (including bentonite, oil and gas)
- D. The county’s designation of mineral resource lands on the “Mineral Resource Map” shall not substitute for any permit or approval required for mineral extraction, shall not create a presumption of approval for any required permits, and will not substitute for any required environmental review or conditioning which may be required in conjunction with a permit.

### **5.3.3 Mineral Goals and Policies**

**GOAL: Douglas County will conserve mineral resource lands for productive economic use to help maintain a stable, cost-effective source of needed construction materials.**

#### Policies:

- M-1. The County will encourage the retention and protection of long-term mineral resource sites of commercial grade aggregate for new development, roads and other uses,

provided mineral resources sites can be located and developed consistent with plan policies.

- M-2. Mineral extraction operations will be sited within designated mineral resource lands of long-term commercial significance and designed to minimize conflicts with adjacent land uses, and to have a minimal impact on critical habitats, natural vistas, cultural resources and the environment.
- M-3. Mining and extraction operations will be sited and designed to minimize conflicts with adjacent land uses, and to have a minimal impact on critical habitats, natural vistas, cultural resources and the environment.
- M-4. Mining sites will be encouraged to first locate in rural designated areas where impacts can be minimized to critical areas, archaeological sites and agriculturally designated lands.
- M-5. Inventory mineral resource lands of commercial significance and other mineral resource sites every five years to determine the adequacy of the resource for ten years and twenty years. Evaluations should be conducted in consultation with the state agencies, mining industry, county representative and citizens.
- M-6. Allow incidental extraction and processing of mineral resources prior to construction or development of permitted residential, commercial, or industrial land uses or in conjunction with a demonstrated need such as to address environmental water quality issues, e.g. Rock Island area or imminent danger from a natural hazard. Incidental extraction of mineral resources should be counted towards the mineral resource inventory.
- M-7. Use existing topography to screen and minimize blasting, noise, dust, vibration, and visual impacts when developing new mineral extraction sites. Where heavy equipment, mines and pits cannot be effectively screened from residential and/or commercial areas, shorelines of the state and major highways a combination of existing topography, berms and landscaping may be utilized to screen the site.
- M-8. Adequate screening and buffering will be maintained between adjacent land uses and the mining site, and will be the responsibility of the new or expanded mineral extraction development.
- M-9. Ensure that mining sites and associated off-site stockpiles are maintained during the life of the operation, particularly in regard to the control of noxious weeds and dust.
- M-10. Reclamation of mining and extraction sites is an integral part of all mining operations, and will be required and completed in a manner that will encourage future land uses that are compatible with local comprehensive plans.
- M-11. Review and designate existing commercially significant mineral resource extraction sites that are legally established through local or state permitting processes and that meet the

review guidelines set forth in this section for designating mineral resource lands of long-term commercial significance.

- M-12. Encourage the designation of new mineral resource lands of long-term commercial significance based on the review guidelines established within this section, and when in accordance with Chapter 365-190-040, and 70, Washington Administrative Code

#### **5.3.4 Implementation and Classification:**

The “Mineral Resource Map” depicts the location of lands designated as mineral lands of long-term commercial significance. These lands should be classified as an overlay mineral resource lands designation to the underlying land use designation. Lands so designated are subject to a conditional use permit review and evaluation process to assess comprehensive plan criteria, land use compatibility, economic issues, reclamation and environmental impacts. Upon completion of mining operations and following the reclamation of the site, it will be removed from the Mineral Resource Map.

Incidental extraction of mineral within commercial/industrial locations should be addressed through County site grading and excavation processes and not the mineral extraction process.

#### **5.3.5 Mineral Criteria**

The following criteria are the minimum requirements to be considered when reviewing proposed development permit application for areas designated on the “Mineral Resource Map”.

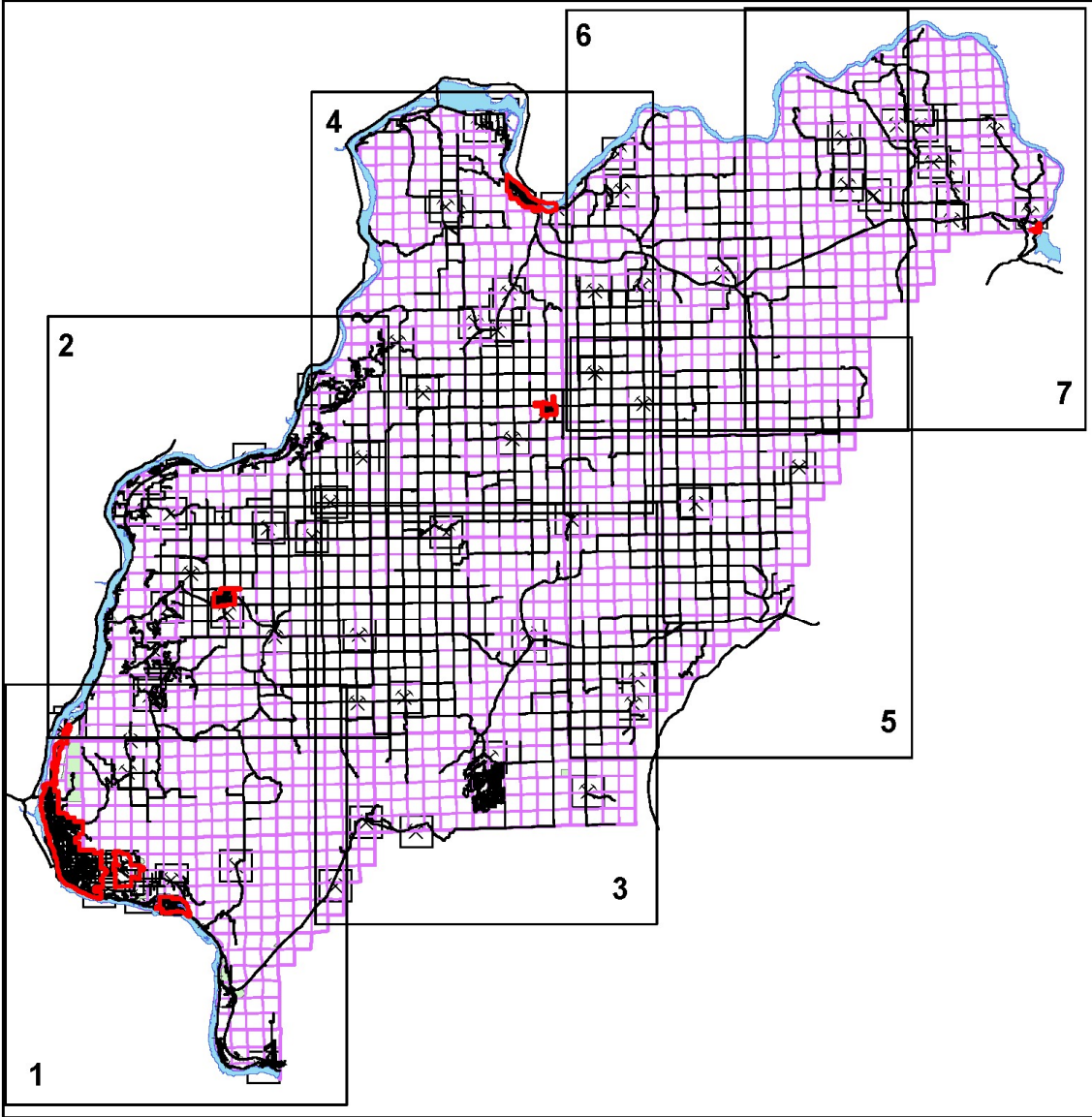
- A. Development proposals for mineral extraction operations shall be consistent with the county’s land use, critical areas, transportation and other elements within the comprehensive plan. Regulatory controls will become applicable concurrent with state requirements.
- B. Settling ponds, retaining basins, ditches, diking and/or re-vegetation of slopes will be required for mineral extraction operations to protect water quality and to prevent erosion.
- C. Filling will not be allowed in floodways and erosion control will be considered a priority and addressed in the operational plan.
- D. Site design shall include adequate measures to control potential negative impacts to adjacent properties, including but not limited to fugitive dust, late hours of operation, light and glare. Such measures may include paving or gravelling road surfaces, watering, limited hours of operation, buffers and locating stockpiles in wind-protected locations.
- E. During the operation of the site, and any associated remote stockpiling, noxious weeds will be controlled in order to prevent spreading of the noxious weeds onto other properties, particularly agricultural lands.
- F. Assure the reclamation of the mineral site is consistent with the Department of Natural Resources Reclamation Plan.

- G. Extraction of new mineral resources shall occur when the site can be screened by existing topography in order to minimize offsite impacts. Where heavy equipment, mines and pits cannot be effectively screened from residential and commercial areas, shorelines and major highways, a combination of existing topography, berms and landscaping and/or a combination of factors may be utilized.
- H. Notification will be placed on all subdivision plats, development permits, building site plans and land titles when properties are located within 500 feet of an existing or potential mineral resource use depicted on the “mineral resource map.” In general, the notice shall state that the property may be subject to a variety of activities such as noise, odors, vibration, early and late hours of operation, traffic, visual, and other associated impacts.
- I. The minimum lot size for a mineral extraction site will be that necessary to encompass areas for resource extraction and necessary operations, stockpiles, sediment ponds and buffering.
- J. All applicable federal and state regulations will be complied with, including but not limited to those rules administered by the Washington State departments of Natural Resources and Ecology.





**Table 8: Mineral Resource Designation Criteria.**

Potential Designation Criteria	Considerations
Land Use Factors	
Jurisdiction	City Boundaries State Lands Federal Lands Other Public Lands
Land Use	Urban Growth Area (typically disqualified) Parcels size Lands designated as Agricultural Lands Lands designated as Forest lands Lands designated as Rural (2, 5, 20) Designated historical/cultural resource sites (typically disqualified) Approved/permitted mining sites
Compatibility with Adjacent Land Uses	General compatibility of mineral resource sites and land use patterns Mineral resource sites adjacent to or impacting urban/residential areas are not typically designated Preferred adjacent land uses may include mining, open space, agriculture and forest lands Impacts to transportation routes in residential areas
Sensitive Uses	Identified archeological and historical sites/areas (example: cliffs and talus slopes), schools, parks, and environmentally sensitive areas Regional or local utility corridors (water, power etc.)
Aesthetic Impact	Impacts on unique features and vistas- Columbia River Corridor SR 97 for example
Transportation	Traffic impact on routes serving mineral resource sites (example: Orondo)
Environmental Factors	
Critical Areas	Presence of streams, wetlands, wellhead protection areas, shorelines of statewide significance, Geological hazards and consequences- floodplains, steep slopes, and erosion hazards
Biological Impact	Impact on biological resources (fish and wildlife habitat) Priority habitats- cliffs and talus slopes ESA listed species, protection measures Impacts to open space
Mineral Site Factors	
Classification Criteria	Life expectancy of site Quality of resource Type of source (clay/sand/gravel/rock)
Parcel Size Restrictions	Minimum size- 10-80 acres is common Dimensional- more than 500 feet in width for example to minimize site impacts to adjacent parcels Volume of resource within the parcel
Feasibility	Depth of overburden Setbacks/buffers Topography
Access/Transportation	Distance to market or job sites Transportation networks- roads and rail

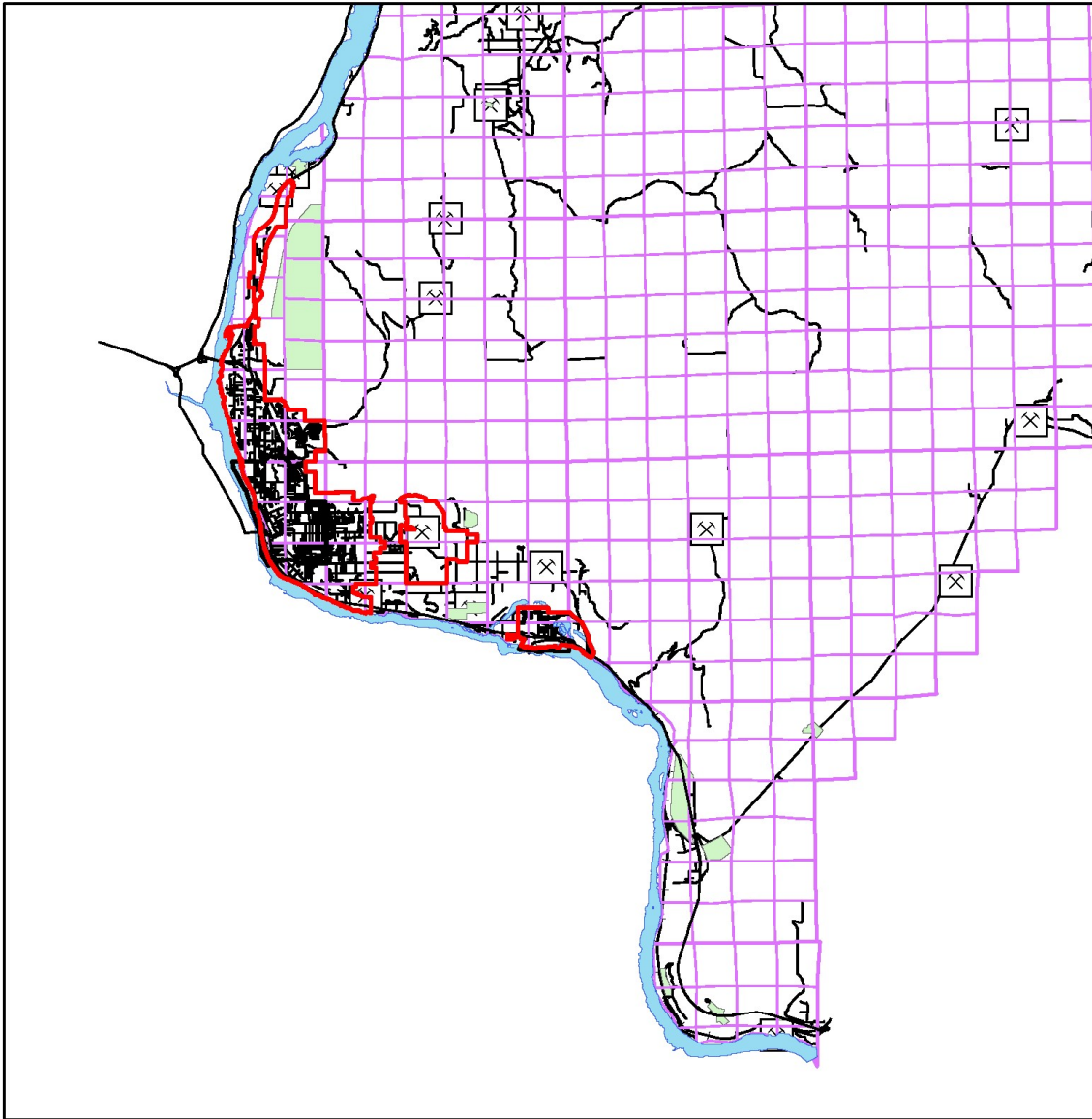
# Douglas County Mineral Index Map







### Legend

-  Mineral Resource Lands
-  Pits and Quarries
-  Urban Growth Areas
-  City Limits

# Douglas County Mineral Map 1



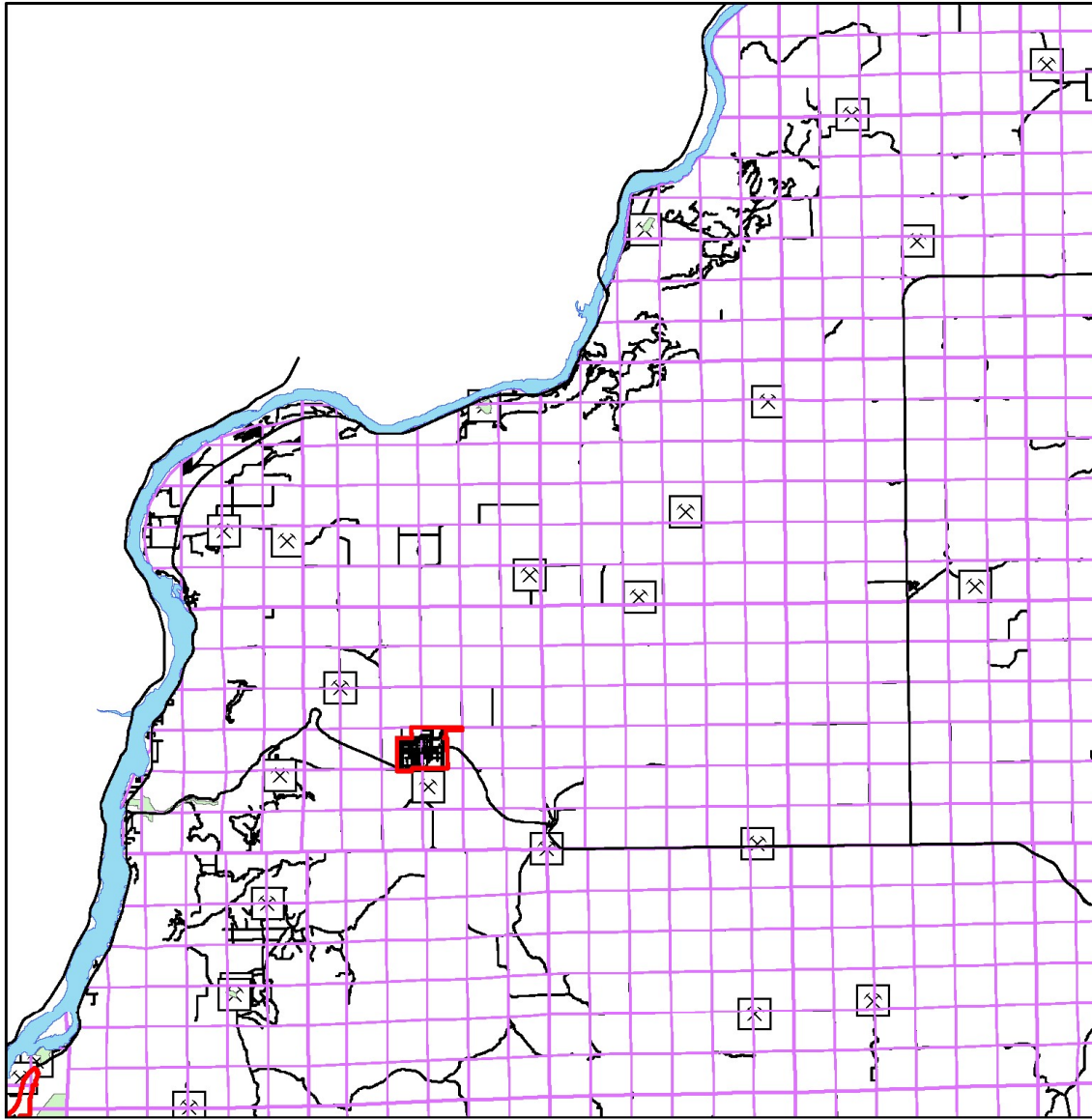
## Legend

-  Urban Growth Areas
-  City Limits
-  Mineral Resource Lands
-  Pits and Quarries







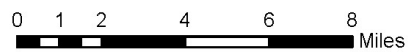
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# Douglas County Mineral Map 2

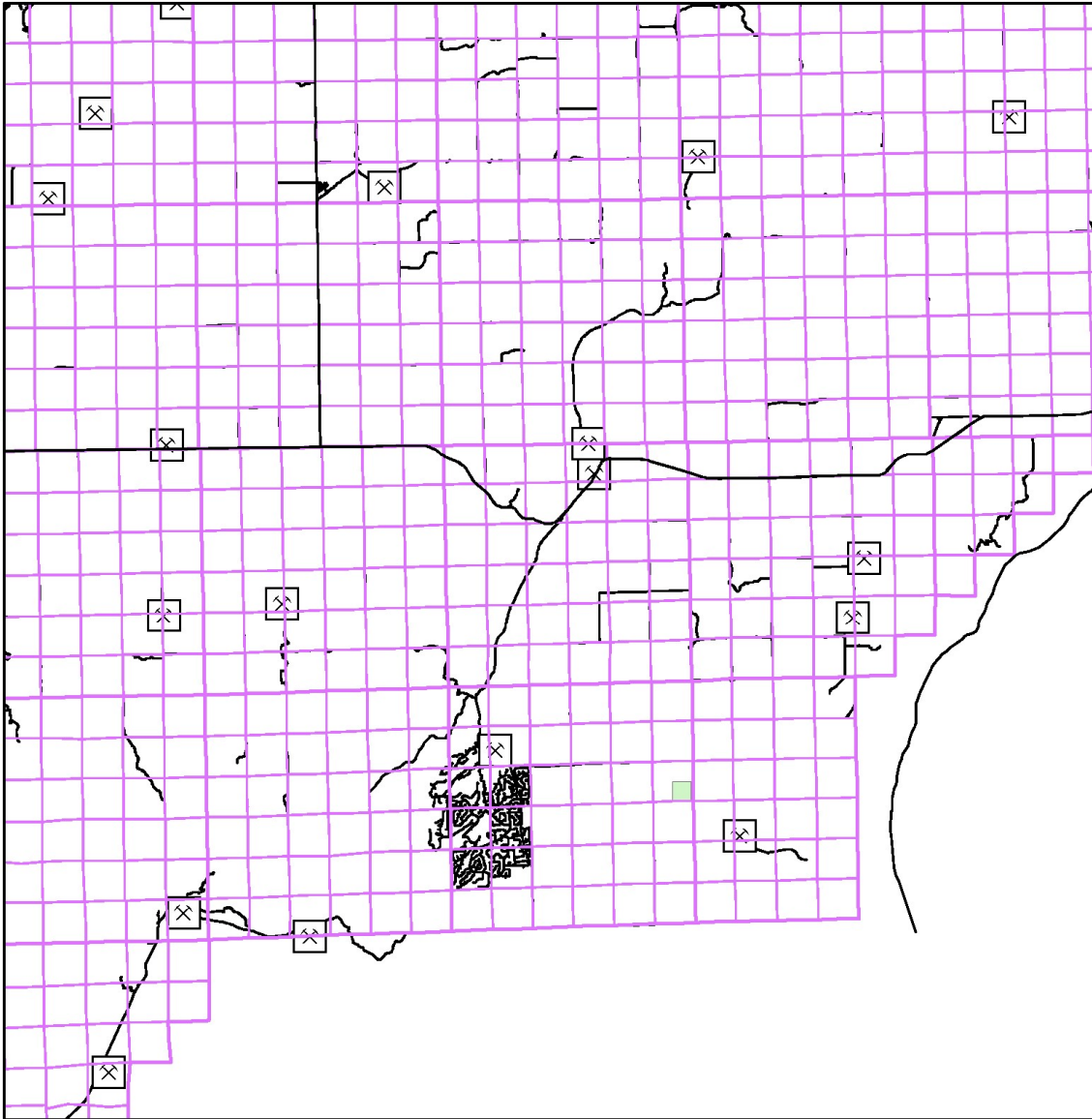


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

-  Urban Growth Areas
-  City Limits
-  Mineral Resource Lands
-  Pits and Quarries



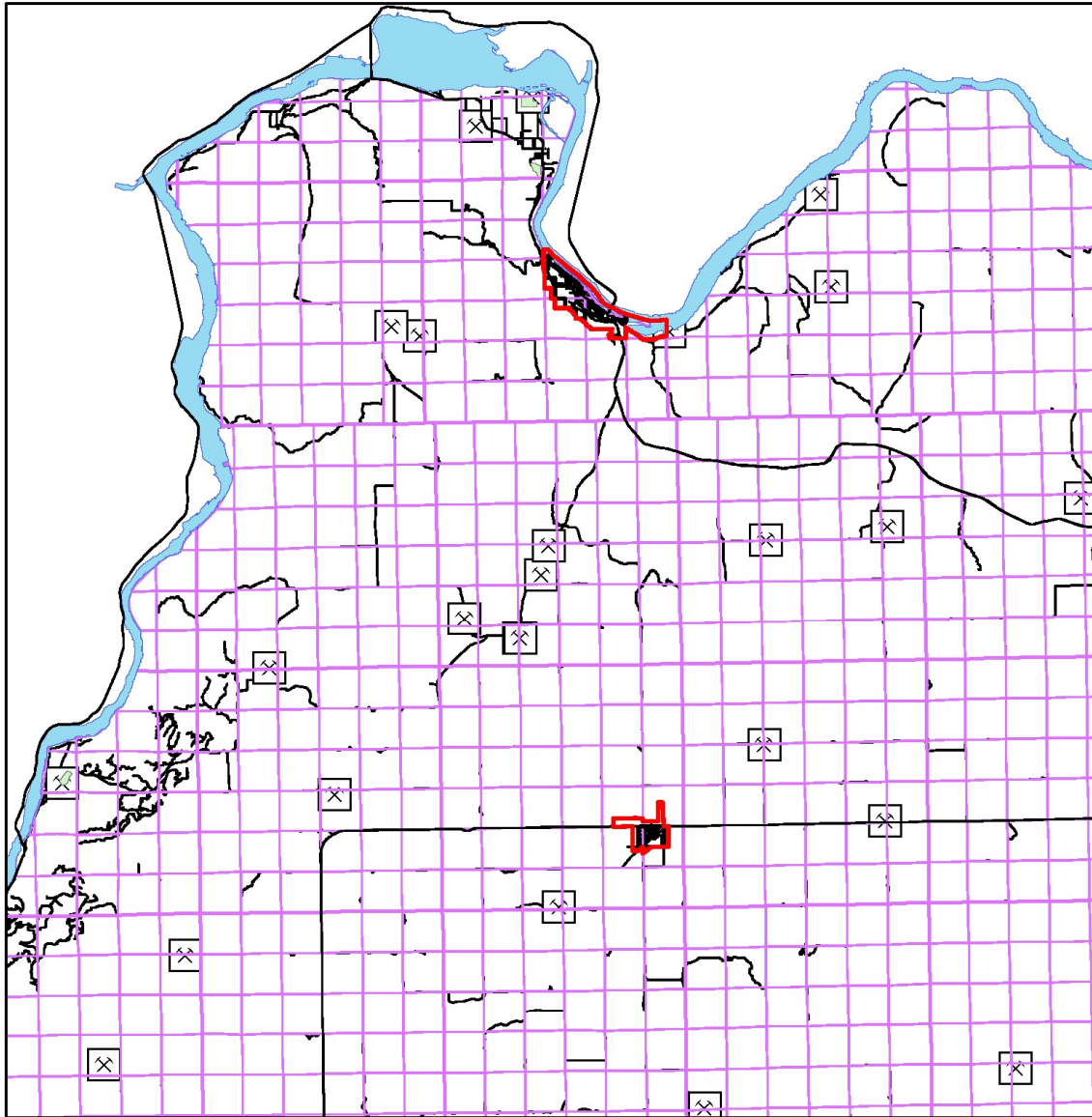
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

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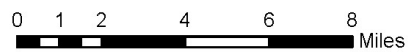
-  Urban Growth Areas
-  City Limits
-  Mineral Resource Lands
-  Pits and Quarries

# Douglas County Mineral Map 4

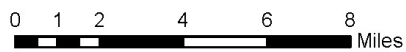
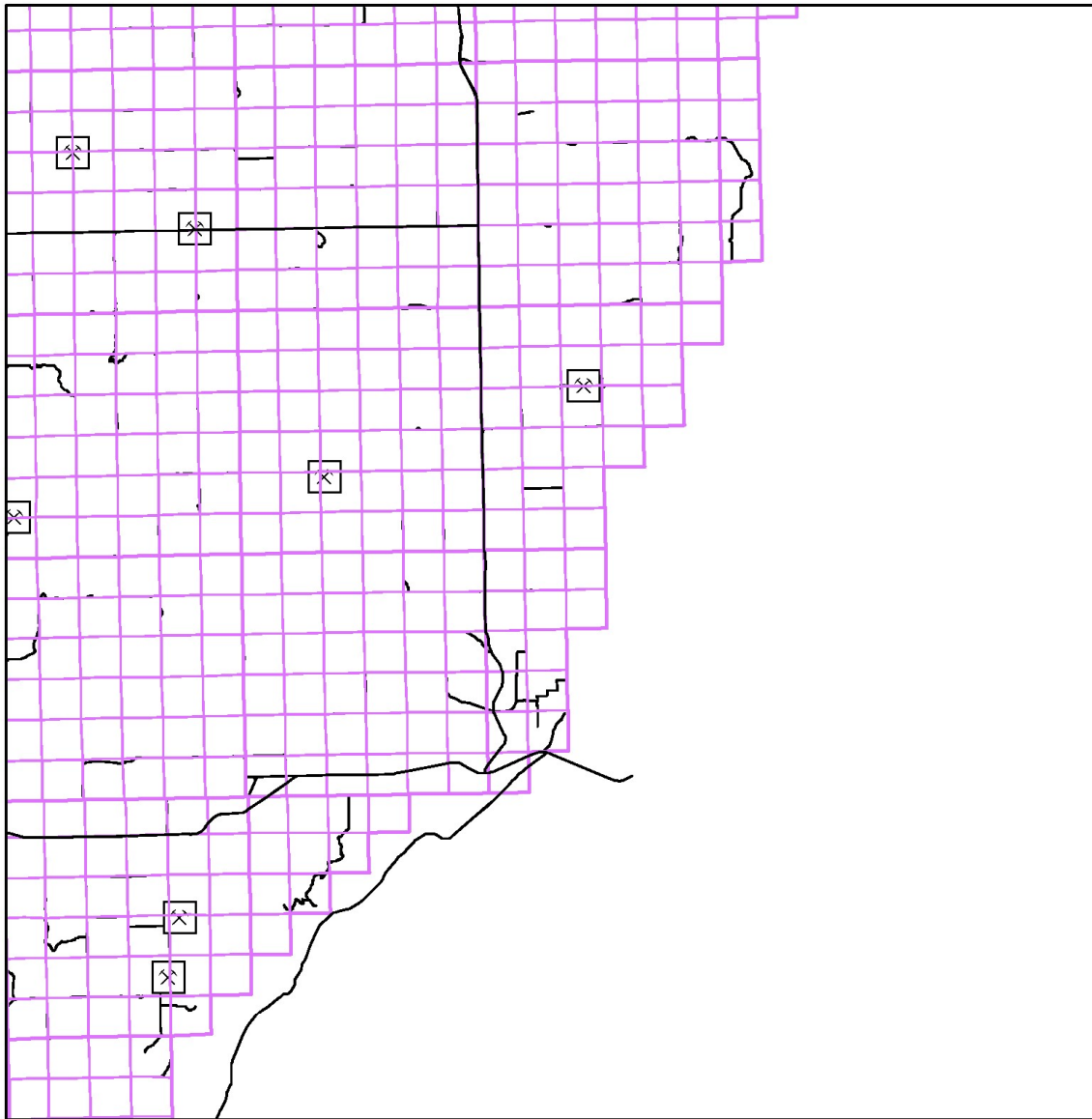


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

-  Urban Growth Areas
-  City Limits
-  Mineral Resource Lands
-  Pits and Quarries



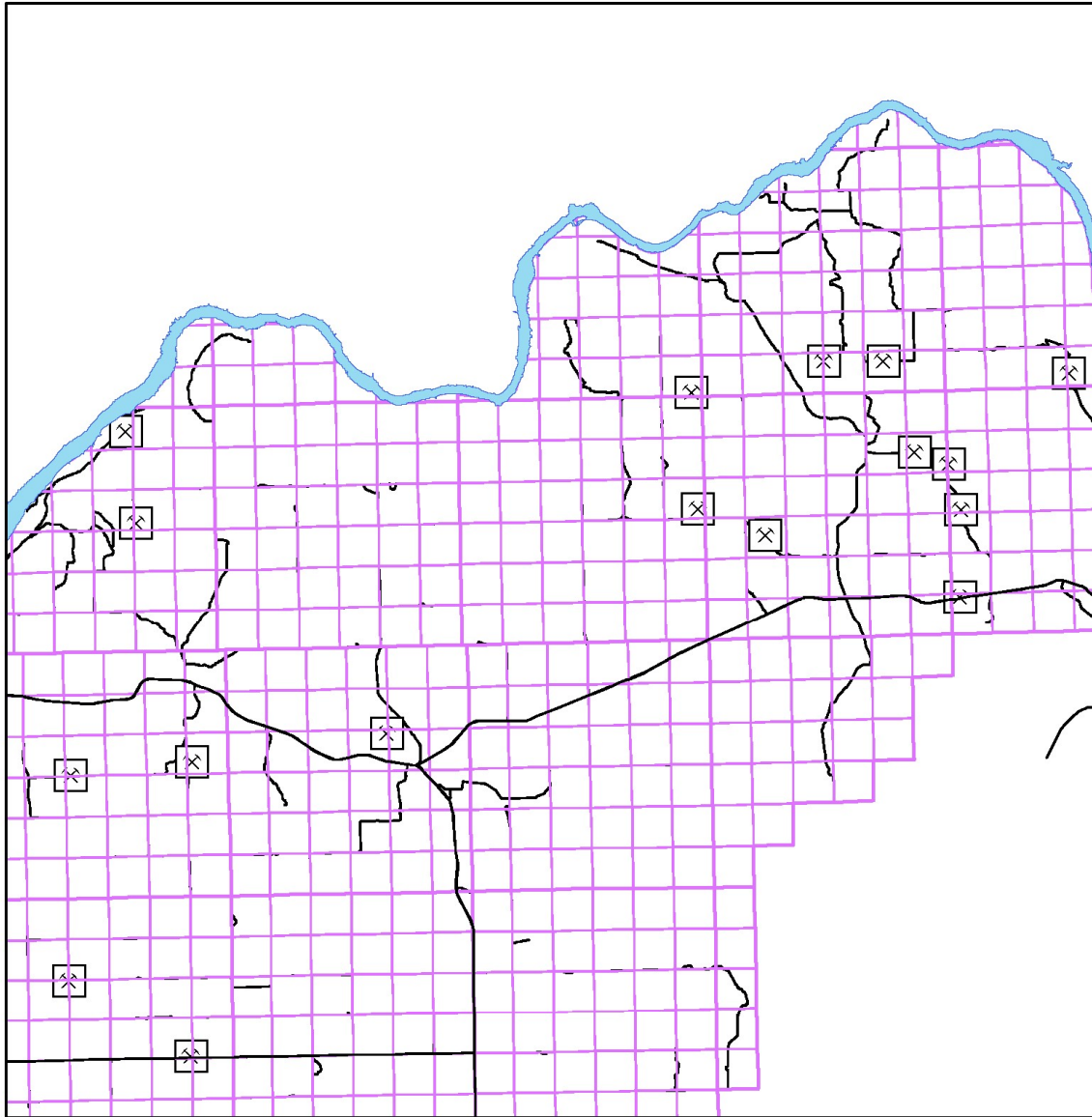
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

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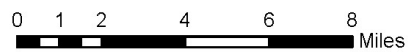
-  Urban Growth Areas
-  City Limits
-  Mineral Resource Lands
-  Pits and Quarries

# Douglas County Mineral Map 6

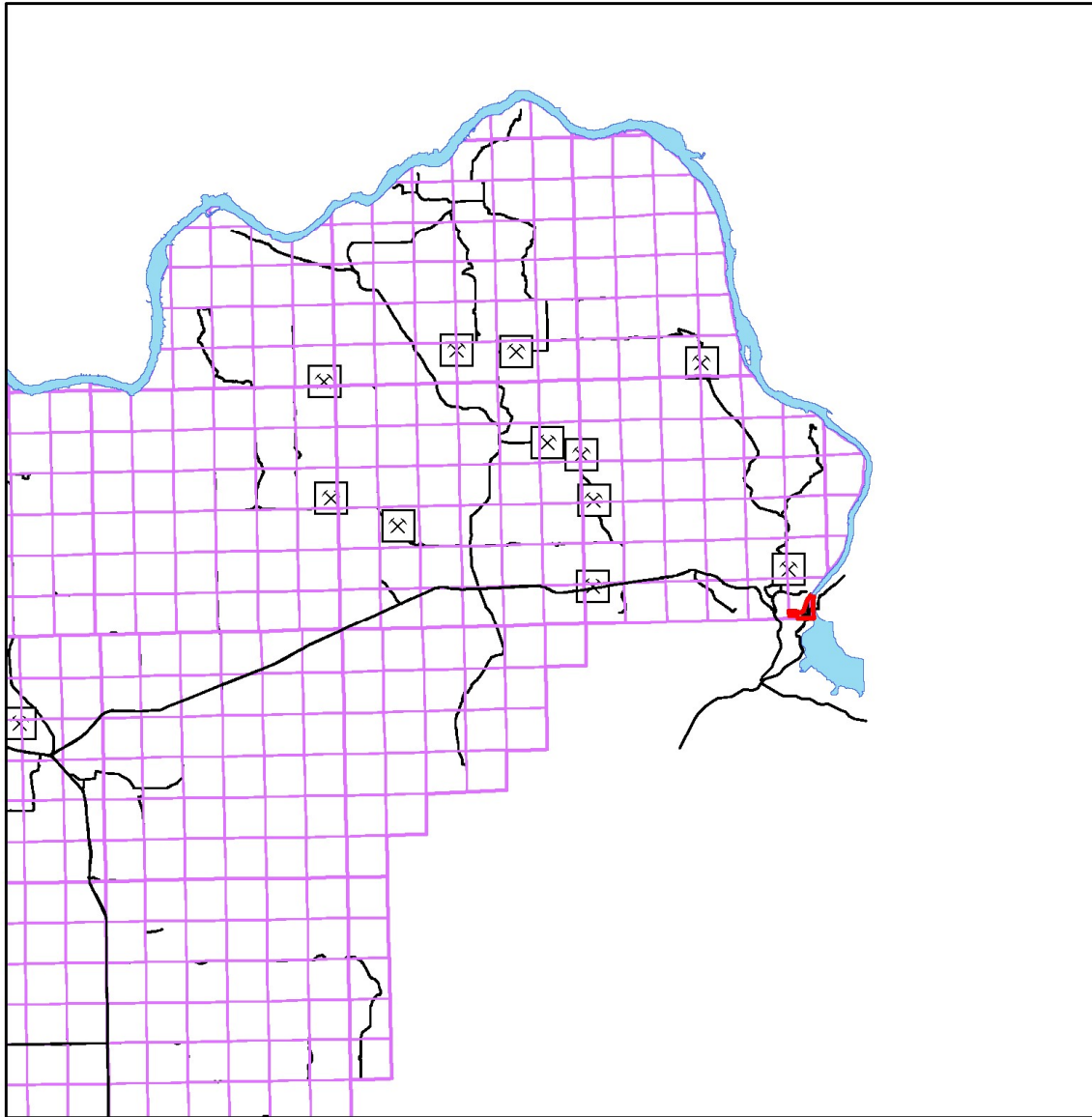


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

-  Urban Growth Areas
-  City Limits
-  Mineral Resource Lands
-  Pits and Quarries



# Douglas County Mineral Map 7



## Legend

-  Urban Growth Areas
-  City Limits
-  Mineral Resource Lands
-  Pits and Quarries

# **CHAPTER 6**

## **TRANSPORTATION ELEMENT**

## CHAPTER 6 TRANSPORTATION ELEMENT

### 6.1 TRANSPORTATION

The purpose of the transportation element is to provide a framework of goals and policies that will enable the County to develop a strategy to link the County and its municipalities together. County, city and state roads and streets provide important transportation corridors for the movement of goods and commodities into and out of the area. They also offer safe, reliable access to work, schools, shopping and residences making land use a key component to the transportation system. Land use patterns influence the demand for travel to, from and through various locations. Therefore, the transportation element has been integrated with other elements of the plan to ensure consistency.

The transportation system has a range of different modes of transportation, including public transit, air and rail transport, and trails for non-motorized uses such as bicycles, pedestrians and horses. All components of the transportation system are vital to the economic health and viability of Douglas County and its communities and needs to be maintained and in order to efficiently provide a full range of service to the area and enhance the overall quality of life of its residents. Poor network circulation can add unnecessary miles for pedestrians, trail systems, school and transit routes, mail delivery, utility and emergency services, and hinder economic development and growth.

A connection between the industrial areas in the region, Pangborn Industrial Service Area and Baker Flats in Douglas County and Olds Station in Chelan County, would facilitate economic expansion and reciprocal development between the two areas. A multi-modal corridor that bypasses urban traffic congestion in the East Wenatchee Urban Growth Area would also provide benefits for commercial and through traffic traveling between Canada and Interstate 90, it would support non-motorized access to more remote areas of the region and provide limited access to the arterial and collector road system that exists along the corridor.

The goals and policies set forth in this section are derived from background information, level of service standards, analysis, recommendations and financing information from the Douglas County Transportation Plan. The Transportation Plan is contained within a separate document due to the complexity of land use patterns, existing transportation network and other transportation planning occurring within or adjacent to the County. Other transportation planning functions includes the Chelan – Douglas Transportation Council (CDTC) Council (the metropolitan planning organization) for the Greater Wenatchee Area, the North Central Washington Regional Transportation Planning Organization (RTPO) for Chelan, Douglas and Okanogan Counties and countywide transportation issues.

#### **6.1.1 Transportation Goals and Policies**

**GOAL: Provide efficient use of existing and future transportation facilities through a systematic approach of monitoring and maintaining the road system, integrating all types of transportation systems and facilities, by coordinating transportation facilities planning with other elements of the comprehensive plan, and coordination with other federal, state and local agencies.**

Policies:

- T-1. Develop a functional classification system to aid in the evaluation and provision of orderly and efficient traffic flow.
- T-2. Adopt appropriate standards for each road classification, including those that address all users of the system (non-motorized, transit, freight and community design). In rural and agricultural areas, these standards will focus on farm to market roads, roads for the traveling public and roads serving rural densities.
- T-3. Monitor levels of service not only for the different classifications based on existing conditions, safety considerations and community desires, but also ensure that the levels of service are reasonable and affordable, and support the land use and development objectives.
- T-4. Develop a circulation plan that plans for and supports the land use designations by preserving corridors necessary for network continuity and expansion.
- T-5. Strive for a reduction in the frequency and severity of highway accidents through efficient management of resources, and through adequate facilities and education that reduce conflicts between different modes of travel.
- T-6. Ensure that alternative transportation modes, particularly trails for pedestrians and non-motorized users, airport and rail facilities, are identified and considered in the transportation element.
- In reviewing development proposals, and as new and existing roadways are improved and built, safe bicycle and pedestrian systems as well as protection of airport runways and operations will be considered.
- Douglas County's public rights-of-way will be maintained in a manner that is free of noxious weeds.
- T-7. Work in partnership with other service providers to identify and invest in transit facilities, operations and road and pedestrian improvements that support the reliability and safety of the public transportation system, and to provide linkages between Urban Growth Areas and Rural Service Centers throughout the County.
- T-8. Encourage access management techniques on arterial and collector roadways and promote public road intersections to increase efficient and cost effective access to multiple properties.
- T-9. Discourage direct access from individual lots to present and planned future collectors and arterials wherever possible. Access from these sites should be provided through local roadways..

- T-10. Promote coordinated bicycle, equestrian and pedestrian way improvements, emphasizing access to schools, parks, employment and service centers, and shorelines.
- T-11. [Deleted]
- T-12. Recognize the connection between economic development opportunities and an adequate transportation system, and take proactive steps to capitalize on these connections to minimize impacts and is sensitive to the existing County residents.
- T-13. Ensure that transportation planning and implementation considers and is respectful of the rural and historic character found throughout the County.
- T-14. Develop consistent policies and procedures for dealing with issues related to transportation that are unique to the rural and agricultural areas of the County. These issues may include temporary road closures, right-of-way vacation requests, cattle guard installations and open range designations.
- T-15. As development occurs it shall comply with the applicable road standards, and off-site improvements to existing County roads may be required where those existing roads do not currently meet the adopted road standards.
- T-16. Douglas County, in cooperation with appropriate organizations, agencies and property owners, should initiate a study to identify feasibility issues and determine the preferred alternative for a multi-modal transportation corridor connecting the Olds Station industrial area in Chelan County and the Pangborn and Baker Flats Industrial Service Area.
- T-17. The analysis of a corridor connecting the Douglas County Industrial Service Areas and Olds Station (Chelan County) should consider the following characteristics:
1. Traffic capacity through access management;
  2. Use by freight haulers;
  3. (Why non-motorized between Industrial Areas?)
  4. Impact on agricultural lands;
  5. Intersections with existing arterials and collectors;
  6. Consideration of airport operations and the Airport Master Plan.
- T-18. Develop a transportation corridor between Airport Way and the intersection of South Van Well Avenue and 4<sup>th</sup> Street SE.
- T-19. Transportation systems shall be designed to provide efficient transportation network circulation for the benefit of the public health, safety and general welfare.
- T-20. Transportation facility connectivity may necessitate the continuation of road systems to foster the long-range transportation objectives of the county.

- T-21. In consideration of their regional significance, arterial and collector road classifications require connectivity to accommodate existing and future growth. Examples include without exception:
- (completed)the Empire Avenue connection to the Cascade interchange,
  - the 12<sup>th</sup> Street SE to Ward Avenue,
  - and the future north south connector from the Airport industrial area to SR2/97.
- T-22. Permanent cul-de-sacs may be permitted where it can be demonstrated that the design meets an acceptable level of network circulation and where it can be demonstrated that feasibility of future connectivity is not practical in accordance with the minimum standards contained in adopted standards.
- T-23. Public and private development projects shall provide efficient and safe pedestrian linkages and planned bicycle corridors, facilitating connectivity to schools, businesses, and recreation in the community.
- T-24. In consideration of the importance of the Apple Capital Loop Trail, as demonstrated in the “More Than a Trail” survey, it is vital to ensure connectivity to the trail from the city and county road systems.
- T-25. New transportation facilities or the reconstruction or alteration of existing transportation facilities shall be designed and constructed so that they are readily accessible and usable by individuals with disabilities in conformance with the Americans with Disabilities Act.
- T-26. Development shall provide improvements adjacent to their development in accordance with adopted design standards and approved traffic studies. Where deficiencies are present, these issues would have to be addressed prior to development occurring in order to protect the public’s health, safety and general welfare consistent with the policies of the comprehensive plan, standard engineering principals, and adopted standards. Improvements necessary to maintain adopted levels of service shall be in place at the time of development, or a financial commitment agreed to by county and the applicant must be in place to complete the improvements or strategies within six years.

## **6.2 EXISTING ROADWAY SYSTEM**

### **6.2.1 System Description**

The topography of Douglas County, with its high plateau, coulees and canyons, affects the characteristics of its roads. Because of the sharp elevation change between the low river bank area at the County border and the high plateau in the center, access to the County’s interior is by steep, winding roads, generally constructed in natural canyons. In the river bank area, roads are relatively flat and somewhat winding. Roads across the plateau are typically straight and somewhat rolling.

Land use in the County is largely agricultural and the population is sparse, particularly in the interior. Most of the County's population is concentrated in the East Wenatchee and Rock Island areas. Smaller population centers are Bridgeport, Orondo, Waterville and Mansfield. Transportation facilities in the East Wenatchee and Rock Island areas are discussed and evaluated in the Transportation 2040, prepared under the direction of the Chelan Douglas Transportation Council, which is incorporated herein by reference.

As an agricultural area, Douglas County is dependent on its roadway system. Additionally, the overall transportation system is seen as a vital component to continued and expanding economic development opportunities particularly related to the many and varied recreational opportunities in the County. Currently, the system is well developed and in good condition overall, and currently functions well. Outside of the Metropolitan Planning Organization (MPO) area, the system is geared toward moving smaller numbers of vehicles over longer distances. Seven state highways in the County include SR 2, a federally designated route, which traverses the County as part of a cross-state route. Hundreds of miles of County roads provide access between the state highways, ranging from paved two-lane roads to narrow gravel lanes. For the purposes of this transportation element, all roadways are identified, however only the Rural County collectors and local access facilities are analyzed and prioritized for improvements. The higher classification rural routes are the State Highways that are evaluated and prioritized by either the Washington State Department of Transportation or the Regional Transportation Planning Organization (RTPO).

### **6.2.2 Roadway Inventory**

Data for this report were collected from several sources. Douglas County maintains an extensive roadway data base that includes information about each road's width, surface material, and average daily traffic. On-site observations and discussions with local, regional and state officials were also major sources of data.

County roads are separated into Rural and Urban categories, with further classification in these two areas as follows:

Rural Areas ~ Rural Major Arterial, Rural Minor Arterial, Rural Major Collector, Rural Minor Collector, or Rural Local Access.

Urban Areas ~ Urban Principal Arterial, Urban Minor Arterial, Urban Collector, Urban Local Access

Generally, arterials are major facilities carrying the largest volume of traffic, including traffic traveling through the County and traffic originating outside the County with destinations within the County. The collectors are roads that connect highways and provide accessibility to the interior of the County. Local access roads serve properties directly and carry very low traffic volumes. Table 6-1 and Figure 6-1 list the state highways in Douglas County as well as the classified roads in the rural areas of the county. Table 6-1 includes the average daily traffic (ADT) in vehicles per day on roads for which the information was available. Bridges on County roads and state highways are listed in Table 6-2 and shown in Figure 6-2.

Allowable tonnage and farm-to-market routes are an important consideration in the rural area of the County because agricultural products are generally hauled from farms and ranches by truck. Farm-to-market routes are listed in Table 6-3 and shown on Figure 6-3. Allowable tonnage for each rated route is listed in Table 6-4 and shown in Figure 6-4. Table 6-5 lists the identified farm-to-market routes that do not currently have a tonnage class assigned. These routes should be studied at some point in the future for inclusion in the tonnage class system, with a “flag” denoting the top priorities roads to study first.

**TABLE 6-1: RURAL AREA ROADWAY CLASSIFICATIONS**

Road #	Road Name	Limits		ADT
<b>Principal Arterials</b>				
SR 2/97		N. of Jct. SR 28 1.25 Miles	Jct. SR 97	6,000
SR 2		Jct. SR 97	Waterville City Limits	1,400
SR 2		Waterville City Limits	Jct. SR 17	700
SR 2		Jct. SR 17	Grant County Line	2,000
SR 28		Rock Island	Grant County Line	4,700
SR 97		Jct. SR 2	Chelan County Line	3,100
<b>Rural Minor Arterials</b>				
SR 17		Jct. SR 2	Jct. SR 172	600
SR 17		Jct. SR 172	Jct. SR 174	500
SR 17		Jct. SR 174	Jct. SR 173	1,300
SR 17		Jct. SR 173	Okanogan County Line	1,900
SR 174		Jct. SR 17	Jct. SR 155	700
SR 155		Okanogan County Line	Grant County Line	3,000
<b>Rural Major Collectors</b>				
SR 172		Jct. SR 1	Jct. SR 17	N/A
SR 173		Okanogan County Line	Jct. SR 17	3,500
43010	Slack Road	Road 4 NW	SR 2	20
43010	Alstown Rd	Alstown Cutoff Rd	Rd 4 SW	20
43540	Alstown Rd	Kelly Davis Rd	Slack Rd	16
44400	Alstown Rd.	Tichenel Canyon Rd.	Alstown	50
44400	Rd 4 SW	Rd E SW	Rd C SW	50
44400	Rd 4 SW	Slack Rd	Rd E SW	50
44510	Rd. C SW	SR 2	Rd. 4 SW	70
46150	Coulee Mdws. Rd.	Rd. 24 NW	SR 2	300
47910	Whitehall Y	Whitehall Rd.	Highland School Rd.	NA
52509	Douglas N. Rd.	SR 2	Rd. 6 NW	175
52760	Airport Rd	Douglas N. Rd	Waterville N. Rd	289
53709	Logan Rd	McNeil Canyon Rd	Sprauer Rd.	116
64650	Heritage Rd.	Atkins Lake Rd	Bechtol Loop Rd	36
65210	Tommy Davis Oil	SR 2	Atkins Lake	44
65770	Heritage Rd.	SR 172	Bechtol Loop	40
66760	St. Andrews Rd. W	Heritage Rd.	Rd O NE	50
66950	St. Andrews Rd.	SR 2	St. Andrews E & W	110
71110	Tanneberg Oil	W. Gallaher Rd	Mud Springs Rd	275
71110	W. Gallaher Rd	N. Division	Tanneberg Oil	275
73509	Harper Rd.	SR 17	SR 172	51

Road #	Road Name	Limits		ADT
73750	Crane Orchard Rd	Central Ferry Canyon Rd	Hill Crest Dr	325
77950	Mansfield Rd.	SR 172	End of Oil	162
82130	Pearl Hill Rd.	SR 17/SR 173	Highland Orchard Rd.	760
85700	Nilles Rd./27 NE	Starkle Rd.	Leahy Rd.	100
92550	Badger Mt. Rd.	Urban Area Boundary	Waterville S. Rd.	300
93130	Grant/Batterman	Grant Rd.	Saunders Ave.	1200
94050	Palisades Rd.	SR 28	Moses Coulee Rd.	450
94170	Rock Island Grade	SR 28	Alstown Rd.	100
94170	Waterville S. Rd.	Baseline Rd.	SR 2	212
94410	Whitehall Rd.	Grant County Line	Highland School Rd.	50
94550	Highland School Rd.	Whitehall Rd.	SR 2	200
95010	Brays Rd.	SR 97	Brown's Canyon Rd.	650
95100	Waterville N. Rd.	SR 2	Brown's Canyon Rd.	235
95100	Lamoine Rd.	Brown's Canyon Rd.	Logan Rd.	61
95100	Sprauer Rd.	Logan Rd.	SR 172	454
95150	McNeil Canyon Rd.	SR 97	SR 172	1,350
95188	Brown's Canyon Rd.	Brays Rd.	Waterville N. Rd.	140
97230	Bridgeport Hill Rd.	SR 172	SR 17	300
98100	Pearl Hill Rd.	Nilles Rd.	Highland Orchard Rd.	500
98210	McCabe Rd.	SR 174	Del Rio Rd.	27
<b>Rural Minor Collectors</b>				
34130	10 <sup>th</sup> ST SE/S. Union Ave.	8 <sup>th</sup> St. SE @S. VanWell	4 <sup>th</sup> St. SE @ Union	270
34630	S. VanWell	4 <sup>th</sup> St. SE @S. VanWell	8 <sup>th</sup> St. SE @S. VanWell	100
34770	8 <sup>th</sup> St. SE	@ S. VanWell	@S. VanWell	100
40100	Crescent Bar Rd.	SR 28	Crescent Bar	1095
43010	Road H SW	SR 2	Armstrong West	20
43540	Alstown Rd.	Alstown	Road H SW	20
44400	Alstown Rd. (Oil)	Alstown	Waterville S. Rd.	20
44400	Armstrong Rd. (4 SW)	Farmer S. Rd.	Road H SW	17
51260	Sun Cove Rd.	SR 97	End	450
52509	Slusser Rd.	Rd. 6 NW	SR 172	84
52702	Columbia Ave.	SR-2	3 <sup>rd</sup> St.	100
53540	3 <sup>rd</sup> St.	Columbia Ave.	Chelan St.	100
53540	Birch St.	SR-2	Monroe St.	100
52708	Monroe St.	Birch St.	Airport Rd.	100
52760	Airport Rd.	Waterville N. Rd.	Douglas N. Rd.	160
53709	Logan Rd.	Slusser Rd.	McNeil Canyon Rd.	80
58010	Suplee Rd.	SR 2	Slusser Rd.	16
60350	Jameson Lake Rd.	SR 2	Dead End(Jameson Lake)	50
71110	Gallagher Rd.	Dyer Hill Rd.	McNeil Canyon Rd.	275
72790	N. Division	Central Ferry Canyon Rd.	Dezellum Rd.	50
73310	Columbia Ave.	10 <sup>th</sup> St.	SR-173	50
73313	10 <sup>th</sup> St.	Columbia Ave.	Fairview Ave.	50
73314	Columbia Blvd.	Foster Creek Ave.	Columbia Ave.	50
73316	Douglas Ave.	18 <sup>th</sup> St.	10 <sup>th</sup> St.	50
73317	16 <sup>th</sup> St.	Douglas Ave.	End	50
73420	Dezellum Hill Rd.	SR 173	N. Division	50
73750	Crane Orchard Rd.	Central Ferry Canyon Rd.	End	325

<b>Road #</b>	<b>Road Name</b>	<b>Limits</b>		<b>ADT</b>
76880	Moe Rd./Grange Rd.	SR 173 (East)	SR 173 (West)	50
78460	Fifth Ave.	Mansfield Rd.	SR-172	50
78465	Railroad St.	Mansfield Blvd.	Main St.	50
87070	McCabe Oil	98210/Nilles Rd.	98210/Del Rio Rd.	50
87870	Strahl Rd.	88600/Parks Rd.	Alameda Flats	50
88600	Rice Rd.	88950/Rex Rd.	Smith Lake Rd.	50
88950	Barker Canyon Rd.	SR 174	Banks Lake	15
88950	Rex Rd.	88600/Parks Rd.	SR 174	50
94170	Waterville S. Rd.	44400/Alstown Rd.	92250/Baseline Rd.	103
94410	Whitehall Y	Whitehall Rd. (Rd. G)	Whitehall Rd. (Rd. 6)	70
94550	Whitehall Rd.	SR 2	Highland School Rd.	76
95010	Bray's Landing Rd.	Brown's Canyon Rd.	SR 97 (North)	494
96250	Mansfield South Rd.	SR 172	Jameson Lake (North End)	52
97100	Crane Orchard Rd.	Central Ferry Canyon	SR 173	830
97100	Central Ferry Rd.	72790/Armour Rd.	Crane Orchard Rd.	50
97100	Dyer Hill Rd.	Bridgeport Hill Rd.	Central Ferry Canyon	82
98100	Leahy Rd.	SR 17	Nilles Corner	11
98210	Starkle Rd.	Road 27 NE	SR 174	50
98310	Smith Lake Rd.	Pendal Rd.	SR 174	72

**TABLE 6-2: DOUGLAS COUNTY BRIDGE INVENTORY**

BRIDGE NAME	ROAD NAME	LENGTH	WIDTH	BRIDGE TYPE	ADT	RATING
21st ST. NE CULVERT	21ST ST. NE	4	0	CMP CULVERT	366	88.96
23rd ST NE BRIDGE	23rd ST NE	16	30	CONCRETE SLAB	381	64.18
27th ST NE. CULVERT	27th ST NE	7	0	CONCRETE BOX CULVERT	1184	99.89
31st ST NW CULVERT	31st ST. NW	8	0	CONCRETE BOX CULVERT	387	99.96
33rd NW BRIDGE	33rd ST. NW	18	100	REINFORCED CONCRETE	211	74.97
35th NW BRIDGE	35th St. NW	17	52	CONCRETE SLAB	247	69.96
38th NW CULVERT	38th ST. NW	6	75	CONCRETE BOX CULVERT	288	94.97
6 MILE CULVERT	ROAD P NE	6	0	CONCRETE BOX CULVERT	37	74.97
8TH ST SE. CULVERT	8TH ST. SE	10	0	CONCRETE BOX CULVERT	690	99.94
9NW CULVERT	9 NW	6	0	CMP ARCH	55	99.99
ALSTOWN	ALSTOWN RD	49	24	CORR MTL	42	96.66
ARMSTRONG CULVERT	RD E. SW	10	0	CMP CULVERT	39	99.99
ARMSTRONG EAST	ARMSTRONG EAST RD	30	30.7	MULTI CMP CULVERTS	100	67.12
ARMSTRONG EAST CULVERTS	RD 4 SW	27	0	CMP CULVERT	103	99.92
BATTERMAN CULVERT	BATTERMAN RD.	6	0	CMP ROUND	627	94.84
BEAVER CREEK (BREILER)	WITTE RD	12	0	CMP CULVERT	50	99.97
BEAVER CREEK (BRETT)	RD 9.5 SW	10	0	CMP ARCH CULVERT	40	99.97
BEAVER CREEK (SCHOOL)	BADGER MTN. RD	30	31.8	CONCRETE SLAB	524	95.24
BRANDT RANCH BRIDGE	RD P NW	18	18	TIMBER BRIDGE	20	63.48
BRIDGEPORT HILL	BRIDGEPORT HILL RD	132	26.5	CONCRETE SLAB	262	82.26
BSW/3SW	3SW	5	0	CMP CULVERT	50	99.99
C SLUSSER RANCH	SLUSSER RD	23	30	CMP CULVERT	250	81
C.KUMMER RANCH	AIRPORT RD (3 NW)	24	28	TIMBER	150	93.81
C.SLUSSER RANCH CULVERTS	SLUSSER ROAD	18	0	CMP ARCH	52	96.92
CANYON B BRIDGE	EASTMONT AVE.	597	59.5	CONCRETE ARCH	7456	97.9
CANYON FERRY CULVERT	CANYON FERRY RD.	9	0	CMP CULVERT	30	74.94
CARPENTER RD. BRIDGE	CARPENTER RD.	12	26	TIMBER	4	73.99
CARPENTER RD. CULVERT	CARPENTER RD.	7	46	CMP ARCH PIPE	4	100
CHIEF JOSEPH DAM	PEARL HILL RD	308	32	TIMBER TRUSS	512	17.63
CHIEF JOSEPH DAM BRIDGE	PEARL HILL RD.	240	32	P/C P/T I BEAM GIRDE	512	99.05
DOUGLAS NORTH	DOUGLAS NORTH RD	22	23	CONC SLAB	99	81.81
DOUGLAS NORTH CULVERT	N. DOUGLAS RD.	9	0	CONCRETE BOX CULVERT	68	74.97
FEIL PLACE BRIDGE	FEIL PLACE NE.	14	28	TIMBER BRIDGE	55	59.98
FOURTH ST NE	FOURTH ST NE	25	26.4	TIMBER SS	320	66.45
HIGGINS LOOP	HIGGINS RD.	15	34	CMP CULVERTS	200	99.92
LAMOINE BRIDGE	LAMOINE RD	58	36	CONCRETE BULB-T	200	72.88
M SW CULVERT	S. WATERVILLE RD.	6	0	CMP CULVERT	110	85.95
MANSFIELD N. NO.4	MANSFIELD NORTH RD	25	24.2	STEEL BRIDGE	50	96.94
MANSFIELD N. NO.5	MANSFIELD NORTH RD	24	24.2	STEEL BRIDGE	50	96.94
MARY JANE HILL	MARY JANE HILL RD	90	30	PS CONC BULB-T	30	88.38
McCABE OIL CULVERT	McCABE OIL	7	0	CMP CULVERT	42	74.98
McELMURRY LN. NE CULVERT	McELMURRY LN. NE	6	0	CMP CULVERT	40	89
McNEAL CANYON CULVERT	CASCADE AVE.	9	0	CMP ARCH	839	99.69
McNEIL CYN. PIPES	McNEIL CANYON RD.	18	0	CMP CULVERT	459	98.49
MOSES COULEE BRIDGE	MOSES COULEE RD	12	28	STEEL CATTLE GUARD	174	64.62
MOSES COULEE CULVERT-10.	MOSES COULEE RD.	5	0	CMP Culvert	174	74.68
MOSES COULEE CULVERT-7.6	MOSES COULEE RD.	5	0	CMP CULVERT	174	74.68
N. BAKER CULVERT	N. BAKER AVE.	12	0	CONCRETE BOX CULVERT	813	99.92
N. LYLE CULVERTS	N. LYLE AVE.	12	0	CMP CULVERTS	1639	99.85
N.NELSON RANCH	NELSON RD	23	24	TIMBER	41	95.98
PALISADES NO. 1	PALISADES RD	78	26.5	CONC BRIDGE	198	72.5
PALISADES NO. 2	PALISADES RD	78	26.5	CONC BRIDGE	198	72.5
PALISADES NO. 3	PALISADES RD	78	26.5	CONC BRIDGE	198	72.5
PALISADES NO. 4	WAGON WHEEL RD	62	28.5	CONC. WEB GIRDER	50	99.99
S. IOWA CULVERT	S. IOWA AVE.	4	0	CMP ARCH CULVERT	192	88.98
S. JAMES CULVERT	S. JAMES ST	96	0	CONCRETE BOX CULVERT	801	94.92
S. KENTUCKY CULVERT	S. KENTUCKY AVE.	11	0	CONCRETE BOX CULVERT	2753	99.74
S. MARY CULVERT	S. Mary	5	0	CMP ROUND CULVERT	62	88.99
S. NANCY CULVERT	S. NANCY AVE.	4	0	CMP STEEL CULVERT	40	89
S. NILE BRIDGE	S. NILE	19	36	CONCRETE SLAB	745	72.85
SAGEBRUSH FLATS	RIMROCK MEADOWS RD.	66	35	CONC BRIDGE	200	99.41
SMITH DRAW BRIDGE	BRIDGEPORT HILL RD	101	36	CONCRETE SLAB	245	99.28
SPRAUER BOXES	LAMOINE RD.	18	0	CONCRETE BOX	221	73.91
SUPPLEE WEST	SUPPLEE WEST RD	20	30.5	STEEL BRIDGE	40	96.95
UPPER PEARL HILL	PEARL HILL RD	30	24.6	STEEL BRIDGE	60	96.87
URBAN INDUSTRIAL WAY CUL	URBAN INDUSTRIAL W	30	0	CMP CULVERTS	70	96.99
WHITEHALL	WHITEHALL RD	28	28	STL BRIDGE	63	99.9

**TABLE 6-3: FARM TO MARKET ROUTES**

<b>Road #</b>	<b>Road Name</b>	<b>Limits</b>	
	SR 2	Chelan CL (Wenatchee)	Grant CL (Coulee City)
	SR 17	Okanogan CL (Bridgeport)	SR 2
	SR 97	Chelan CL (Wenatchee)	Chelan CL
	SR 155	Okanogan CL (Coulee Dam)	Grant CL (Coulee Dam)
	SR 172	SR 2	SR 17
	SR 173	Okanogan CL (Brewster)	SR 17
	SR 174	SR 17	SR 155
37280	Clark Rd.	Badger Mtn. Rd.	End Of Road
38040	Witte Rd.	Badger Mtn. Rd.	End Of Road
40470	Stuhmiller Rd.	Sr 28	End Of Road
41510	Columbia Siding Rd.	Sr 28	End Of Road
43010	Alstown Rd.	Alstown Cutoff Rd.	Rd 4 Sw
43010	Slack Rd	Rd. 4 Sw	Sr 2
43310	Rd K Sw	Sr 2	Alstown Cutoff Rd.
43540	Alstown Rd.	Douglas Creek Rd.	Slack Rd.
44400	4 Sw	Slack Canyon Rd.	C Sw
44510	C Sw	4 Sw	Sr 2
46150	Moses Coulee Rd.	Rd 24 Nw	Sr-2
52509	Douglas N. Rd.	Sr 2	Sr 172
52760	Airport Rd.	Douglas N. Rd.	Waterville N.
52760	Supplee Gravel Rd.	Logan Rd.	Rd K Nw
53709	Logan Rd.	Mcneil Cnyn. Rd.	Sprauer Rd.
53709	Logan Rd.	Sprauer Rd.	Slusser Rd
58010	Supplee Oil Rd.	Sr 2	Supplee Gravel Rd.
58010	Logan Rd.	Supplee Gravel Rd.	Slusser Rd
61500	Rd E Ne	Mansfield Rd.	Procter Rd.
64650	Heritage Rd.	Atkins Lk. Rd	Bechtol Loop Rd.
65210	Tommy Davis Oil	Sr-2	Atkins Lk. Rd.
65770	Heritage Rd.	Sr 172	Bechtol Loop Rd.
66760	St. Andrews W.	Heritage Rd.	Rd O Ne
66950	St. Andrews	Sr 2	E/W St. Andrews
69660	Sims Loop Rd	Sr-17	Sr-17
69900	Rd 13 Ne	Sims Loop Rd	Rd V Ne
71110	Galahar W.	N. Division	Tanneberg Oil
71110	Tanneberg Oil	W. Gallaher Rd.	Mud Springs Rd.
73509	Harper	Sr 17	Sr 172
73750	Crane Rd.	Central Ferry Cnyn.	Hill Crest Dr.
77950	Mansfield Rd.	Sr 172	End Of Oil
82030	Henton Rd.	Pearl Hill Rd.	Chalk Hills Rd.
82130	Pearl Hill Oil Rd.	Pearl Hill Rd.	Sr 17
82130	Highland Orchard Rd.	Pearl Hill Oil Rd.	End
83510	Box Canyon Rd.	Beginning Of Rd.	Pearl Hill Rd.
83510	Chalk Hills Rd.	Box Canyon Rd.	Sr 17
85700	Leahy Oil	Del Rio Rd	Leahy Oil Rd

<b>Road #</b>	<b>Road Name</b>	<b>Limits</b>	
87070	Mccabe Oil	Delrio Rd.	Rd. W Ne
87070	Rinker Loop	End Of Oil	Delrio Rd.
87870	Strahl Cnyn. Rd.	China Creek Rd.	Twin Springs Rd.
88600	Parks Rd.	Rd B Rex	Rd D Rex
88950	Barker Canyon	Twin Springs Rd	End Of Road
92250	Mcginis Cnyn Rd.	Rd O Sw	End Of Gravel
92250	Badger Mtn.	Fancher Heights	Area 2 Border
92250	Badger Mtn.	Area 2 Border	Rd O Sw
92250	Badger Mtn.	End Of Gravel	Waterville S.
93130	4 <sup>th</sup> St. SE/Batterman Rd	S. VanWell	SR-28
93130	S. VanWell	Grant Rd	4 <sup>th</sup> St. SE
94050	Palisades	End/Oil	Billingsley's
94050	Palisades	Sr-28	Mp 15.83
94170	Rock Isl. Grade	End Of Oil	Frayley Rd.
94170	Titchenal Canyon Rd.	Frayley Rd.	Alstown Rd.
94170	Waterville S.	Alstown Oil	City Of Waterville
94170	Rock Isl. Grade	Sr 28	End Of Oil
94410	Whitehall Rd.	Back Leg	Grant Co. Line
94550	Highland Sch.	Mp 3	Whitehall Rd.
94550	Whitehall Rd.	Sr-2	Back Leg Rd.
94550	Highland Sch.	Sr 2	3 Mi. So.
95010	Brays Lndg.	Sr 97	Browns Canyon Rd.
95010	Bray's Landing	Brown's Canyon Rd.	Sr-97
95100	Sprauer Rd.	Logan Rd.	Sr-172
95100	Waterville N.	Airport Rd.	Logan Rd.
95150	Mcneil CANYON	SR 97	M.P. 1.7
95150	Rd 15 Nw	Mcneil Cnyn. Rd.	Sr-172
95188	Browns Canyon Rd.	Top Of Grade	Waterville North Rd.
96110	Schick Oil Rd.	Sr 2	Sr 172
96250	S. Mansfield Rd.	Rd 13 Nw	Rd 5 Ne
97100	Dyer Rd.	Bridgeport Hill Rd.	Rd 24 Nw
97100	Crane Rd.	Crane Warehouse Rd.	Sr 173
97100	Central Ferry Cnyn.	Rd 24 Nw	Crane Warehouse Rd.
97230	Bridgeport Hill Rd.	Sr 172	Sr 17
97460	Rd K Ne	Sr-172	Rd 18 Ne
98100	Leahy Rd.	Sr 174	Rd 27 Ne
98100	Pearl Hill Rd.	Leahy Oil Rd	Box Canyon Rd.
98100	Pearl Hill Rd.	Box Canyon Rd.	Pearl Hill Oil Rd.
98210	Delrio/Mccabe	Sr 174	Rd Y Ne
98210	Mccabe Oil Rd.	Sr 174	Delrio Rd.
98310	Smith Lake Rd.	Sr-174	Rd 32 Rex

**TABLE 6-4: TONNAGE CLASS (ALLOWABLE ANNUAL TONS IN THOUSANDS)**

Road #	Road Name	Limits	
<b>T1 (over 10 million gross tons annually)</b>			
	SR 2/97	Columbia River	SR 28
	SR 28	@ SR 285 Interchange	Grant Road
<b>T2 (4 to 10 million gross tons annually)</b>			
	SR 2/97	SR 28	Jct. SR 2 & SR 97 (Orondo)
	SR 28	SR 2/97	Grant County line
<b>T3 (300 thousand to 4 million gross tons annually)</b>			
	Grant Rd/4 <sup>th</sup> St. SE	SR 28	S. Webb Ave
	SR2	SR 97	Coulee City
	SR 17	Bridgeport	SR 2
	SR 97	SR 2	Beebee Bridge
	SR 173	Brewster	SR 17
	SR 172	SR 17	Grand Coulee
<b>T4 (100 thousand to 300 thousand gross tons annual)</b>			
	SR 172	SR 2	SR 17
71110	Tannenberg Oil	McNeil Canyon Rd	Gallaher West
82130	Highland Orchard Rd	Pearl Hill Rd	MP 3.49
82130	Pearl Hill Rd	SR 17	Henton Rd
92250	Eastmont/Badger Mt Rd	Grant Rd	MP 14.26
92250	Baseline Rd	McGinnis Canyon	Waterville South Rd
93130	Batterman Rd	S. Webb Ave	SR 28
94050	Palisades Rd	SR 28	MP 18.83 (Billingsley's)
94170	Waterville South Rd	Baseline	SR 2 (Waterville)
95100	Waterville North Rd	SR 2	K NW (MP 9.36)
96250	Mansfield South	SR 172	Mansfield Elevator
97100	Crane Orchard Rd	Central Ferry Canyon Rd	SR 173
97230	Bridgeport Hill Rd	SR 172	SR 17
98100	Pearl Hill Rd	MP 13.47	Highland Orchard Rd
<b>T5 (over 20 thousand gross tons in 60 days)</b>			
43010	Stolts Rd	Alstown Rd	SR 2
46150	Moses Coulee Rd	Grant County line	SR 2
52509	Douglas North/Slusser Rd	SR 2	SR 172
52760	Airport Rd	Waterville North Rd	Douglas North Rd
53060	Airport Rd	La Moine Rd	Douglas North Rd
53709	Logan Rd	La Moine Rd	McNeil Canyon
66950	St Andrews South	SR 2	St Andrews West
73316	Douglas Ave (Bridgeport)	SR 173	SR 173
73420	Dezillum Hill Rd	SR 173	SR 173
73509	Harper Rd	SR 172	Mary Jane Hill
77950	Mansfield North Rd	SR 172	MP 6.60
82130	Highland Orchard Rd	Pearl Hill Rd	Dead End
87070	McCabe Oil	Del Rio Rd	End of Oil MP 5.07
92250	Badger Mt/McGinnis Canyon Rd	MP 14.26	MP 22.2 (Baseline)
94050	Palisades Rd/Moses Coulee Rd	MP 18.83	Coulee Meadows Rd
94170	Rock Island Grade	SR 28	Alstown Rd

<b>Road #</b>	<b>Road Name</b>	<b>Limits</b>	
94410	Whitehall Rd	Grand County line	Highland School Rd
94550	Whitehall Rd	Whitehall "Y"	SR 2
95010	Brays Landing Rd	SR 97 (South)	SR 97
95100	La Moine Rd	K NW	Logan Rd
95150	McNeil Canyon Rd	SR 97	MP .48 (Beebee Warehouse)
96250	Mansfield South Rd	Mansfield Elevator	MP 3.81
97100	Dyer Hill Rd	Bridgeport Hill RD	MP 7.02
98100	Leahy Rd	SR 17	Rd 27 NE
98100	Pearl Hill Rd	End of Oil	Henton Rd
98210	McCabe Oil	SR 174	Rd 27 NE
98310	Smith Lake Rd	SR 174	End of Oil (MP 6.5)

**TABLE 6-5: FARM-TO-MARKET ROADS TO REVIEW FOR INCLUSION ON TONNAGE CLASSIFICATION LIST** (“Flag” denotes highest priority roadways for study)

Road #	Road Name	Limits		Flag
37280	Clark Rd	Badger Mtn Rd	End	
38040	Witte Rd	Badger Mtn Rd	End	
40470	Stuhlmiller Rd	SR 28	End	
41510	Cloumbia Siding Rd	SR 28	End	X
43010	Alstown Rd	Alstown Cutoff Rd	Rd 4 SW	X
43010	Slack Rd	Rd 4 SW	SR 2	
43310	Rd K SW	SR 2	Alstown Cutoff Rd	
43540	Alstown Rd	Kelly Davis Rd	Slack Rd	X
44400	Rd 4 SW	Rd E SW	Rd C SW	
44400	Rd 4 SW	Slack Rd	Rd E SW	
44510	Rd C SW	Rd 4 SW	SR 2	
52760	Supplee Gravel	Logan Rd	Rd K NW	
53709	Logan Rd	Sprauer Rd	Slusser Rd	X
58010	Supplee Oil Rd	SR 2	Supplee Gravel Rd	X
58010	Logan Rd	Supplee Gravel Rd	Slusser Rd	
61500	Rd E NE	Mansfield Rd	Procter Rd	
64650	Heritage Rd	Atkins Lake Rd	Bechtol Loop Rd	X
65210	Tommy Davis Oil	SR 2	Atkins Lake Rd	X
65770	Heritage Rd	SR172	Bechtol Loop Rd	
66760	St Andrews West	Heritage Rd	Rd O NE	X
69660	Sims Loop Rd	SR 17	SR 17	
69900	Rd 13 NE	Sims Loop Rd	Rd V NE	
82030	Henton Rd	Pearl Hill Rd	Chalk Hills Rd	X
82130	Highland Orchard Rd	Pearl Hill Oil Rd	End	X
83510	Chalk Hills Rd	Box Canyon Rd	SR 17	
83510	Box Canyon Rd	Beginning	Pearl Hill Rd	
85700	Leahy Oil	Del Rio Rd	Leahy Oil Rd	X
87870	Strahl Canyon Rd	China Creek Rd	Twin Springs Rd	
88600	Parks Rd	Rd B Rex	Rd D Rex	
88950	Barker Canyon Rd	Twin Springs Rd	End	X
95010	Brays Landing Rd	SR 97	Browns Canyon Rd	
95010	Brays Landing Rd	Brown’s Canyon Rd	SR 97	
95100	Sprauer Rd	Logan Rd	SR 172	
95150	Rd 15 NW	McNeil Canyon Rd	SR 172	X
95188	Browns Canyon Rd	Top of Grade	Waterville North Rd	
96110	Schick Oil Rd	SR 2	SR 172	
97100	Central Ferry Canyon Rd	Rd 24 NW	Crane Warehouse Rd	X
97460	Rd K NE	SR 172	Rd 18 NE	
98100	Pearl Hill Rd	Leahy Oil Rd	Box Canyon Rd	
98210	Del Rio/McCabe Oil	SR 174	Rd Y NE	

### **6.2.3 Other Systems Inventory**

There are three general aviation airport facilities providing passenger and freight transportation in the County. Pangborn Memorial Airport in the Greater East Wenatchee Area is the primary regional airport for Douglas County and Chelan County. The airports in Waterville and Mansfield are primarily used for agricultural operations, freight, and small airplane use.

The Burlington Northern Santa Fe Railroad's rail line runs through the southern portion of Douglas County, however, there is currently no direct rail service out of Douglas County. The primary rail yard is in Wenatchee with lesser rail service in smaller communities throughout Chelan County. Historically, the Mansfield spur, a part of the Burlington Northern Santa Fe Railroad, provided service to the plateau areas of Douglas County prior to 1978. The spur line was located in the southern portion of the County through the Palisades and Douglas Creek area, and it terminated in the Town of Mansfield.

Link Transit, a Public Benefit Transportation Area, provides year-round service in both Chelan and Douglas Counties with twelve (12) fixed routes; two (2) deviated routes, two (2) commuter routes, and one seasonal route to Mission Ridge Ski Area. Paratransit service for ADA eligible individuals is provided by LinkPlus with up to twenty-eight (28) paratransit vehicles operating on next-day reservation requests. In Douglas County Link Transit provides service to Waterville on the plateau and to East Wenatchee and Rock Island in the urbanizing area of the county.

### **6.3 LEVEL OF SERVICE**

Level of Service (LOS) for transportation facilities is defined most often by the capacity of the facilities. The Transportation Research Board's Highway Capacity Manual defines ratings of A through F for highway segments, intersections, or arterial street segments, based on the volume of traffic and the available capacity of the facility.

This rating system is appropriate in densely populated areas where transportation facilities are at or approaching capacity, but it does not provide a meaningful measurement of LOS for the rural areas of Douglas County, where roadway system use is well below capacity. Because the land use for most of the rural areas of the county is agricultural and the small population is widely distributed, the County's rural roadway system is made up of low-volume roads that do not exhibit capacity problems. To analyze the rural roadway system more effectively, it has been rated using a two part test: Condition LOS and Operation LOS. The condition and operation rating scales are not based on standard scales, but have been developed specifically for the Douglas County rural roadway system.

Condition LOS looks at how well suited a roadway is for the type of use it is most often serving, based on a series of classification tools that are used by Douglas County. This measure helps identify roads that are the most important for the rural areas of the County. The information used to characterize condition LOS include:

- Whether a roadway is a farm-to-market route;
- Whether a roadway has a tonnage classification rating;

- If a roadway is paved or unpaved;
- What functional classification a roadway has;
- What maintenance classification a roadway has; and
- The number of Average Daily Trips (ADT).

A higher condition LOS indicates that the roadway is a more important roadway that is used most frequently.

Operation LOS rates a roadway based on how well it functions during the course of the year. For Douglas County, the tools used to characterize how well a roadway is operating include:

- Whether a roadway is subject to temporary weight restrictions;
- Whether a roadway is subject to temporary closures;
- The number of accidents;
- The pavement rating system; and
- The speed limit ordinance (which considers, in part, the structural components and existing conditions of each roadway).

A high operation rating indicates a roadway that is generally functioning well, given its purpose, while a low rating indicates a roadway that is in need of improvement to bring it to an acceptable operation level.

### **6.3.1 Condition LOS**

The following components were considered as part of the Condition LOS:

**Farm-to-Market Route:** Based on a detailed review by rural land owners appointed to a Citizens' Advisory Committee (CAC), a system of farm-to-market routes was identified. In addition to the state highways that traverse the County, there are numerous County roads that serve to haul agricultural products in and commodities out of the rural areas of the County. (Table 6-3 identifies these routes.) In establishing condition LOS, if a roadway was considered a farm-to-market route it was given a score of 1, whereas if it was not, it was given a 0. Most non-farm-to-market routes were not given further consideration except where they served existing recreational/residential development.

**Tonnage Class:** Based on a system created and managed by the Washington State Department of Transportation, many of the roads in Douglas County have a tonnage classification rating based on how much weight is transported annually. (Table 6-4 identifies the existing roads with a tonnage classification.) Again, a score of 1 point was assigned to roadways with a tonnage class and 0 was given if there was not a tonnage class. During the CAC review process, it was determined that many of the farm-to-market routes do not have a corresponding tonnage classification. In an attempt to update this rating tool, the County is proposing that the roadways listed in Table 6-5 have studies done to assess their placement into this classification. Recognizing that these studies take time and resources, certain roads were "flagged" as the top priorities for study.

**Paved or Unpaved:** Because different surface types require different maintenance and improvement activities, roadways were assigned points based on whether or not they were

paved or unpaved. If a roadway was unpaved, it received 0 points while paved roads received a score of 1.

**Functional Class:** Douglas County’s road system is first divided between “Urban” and “Rural” roadways. Within each of these two categories there are additional subcategories that classify the roads in their respective areas. Generally, principal and minor arterials are major highways carrying the most traffic, including traffic traveling through the County and all traffic with its origin or destination in the County. Collectors and minor collectors generally provide access between highways and the interior of the County, usually with low to moderate traffic volume. Access roads generally serve individual properties. All non-highway, rural arterials and collectors are included in the level of service analysis. Access roads are included only when they meet specific criteria.

For the purposes of this rural transportation element, only the following classifications are considered (Please see the Wenatchee Area Metropolitan Transportation Plan for the “urban area” functional classification descriptions):

- Rural Major Arterial
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Rural Local Access

In evaluating roadways for LOS performance, this element only evaluated rural major and minor collectors and rural local access roads that were identified as farm-to-market routes. If a roadway was a collector it received a score of 1, and local access farm-to-market roads received a score of 0.

**Maintenance Class:** The County’s newly implemented Maintenance Classification System was also used to help evaluate condition LOS. This system was implemented in recognition that limited funding makes it impossible to maintain all County roads at a uniform level. The purpose of the system is to economically and efficiently administer available maintenance dollars by maintaining County roads according to the need for maintenance and the average daily traffic. The system classifies roads as follows:

- **Class 1 Road** – Any paved county road (normally a school bus and mail route) that is maintained on a year around basis and is an established snowplow route.
- **Class 2 Road** – Any aggregate covered county road (normally a school bus and mail route) that is maintained on a year around basis and is an established snow plow route.
- **Class 3 Road** – Any aggregate covered county road normally maintained spring and fall that is not a bus route or mail route, but is a farm to market road where residents use the road regularly year around. This class road is a local access road and an established snowplow route.
- **Class 4 Road** – Any aggregate covered road maintained once a year. These roads are generally primitive backcountry roads with minimal local traffic. Little more than blading or rock raking is done at any one time, they are not plowed in the winter time, and projects are put on a “to do” list and accomplished as time allows.

- **Class 5 Road** – These primitive dirt roads are maintained on an “as needed” basis only. Maintenance or repair is not performed on an annual basis unless there is eminent fire danger present due to the vegetation growing in the center or alongside the road.

In assigning scoring to the roadways based on maintenance class, if a road was a class 1, 2 or 3 it received 1 point, however it was a class 4 or 5, it received a score of 0.

### **6.3.2 Operation LOS**

Once the condition LOS was established for each roadway considered, an operation LOS was evaluated based on the following components:

**Weight Restriction:** Because of a number of different factors, roads may be placed under load limits on a short-term or seasonal basis. Surfacing, condition or location may dictate a need to protect the road from damage resulting from heavy truck traffic, usually based on weather conditions such as snow or spring thaws. To assign points for operation LOS, if a particular roadway had, in recent years, been placed under weight restrictions for truck traffic (generally during spring thaw events), it received a score of 0, whereas roads that have not been weight restricted received a score of 1.

**Road Closure:** Similar to weight restrictions, closures may occur on roadways that might be significantly damaged during seasonal conditions if any type of traffic is allowed to pass. In these instances a road may be fully closed to prevent the damage for a period of time, usually during the winter season. Points for operation LOS were given to roads based on whether or not they had been fully closed in recent years. Roads that had been closed received a score of 0, while roads that had not experienced closure received a score of 1.

**Accidents:** Throughout Douglas County, accidents that are reported to authorities are tracked based on location on specific roadways and roadway segments. In assigning points related to the number of accidents, the fewer the accidents, the higher the point rating, resulting in a lower LOS for roadways with more accidents. Based on the number of accidents on roadways between 1994 and 2004, 0 to 1 accidents received a score of 3, 2 to 10 accidents resulted in 2 points and roadways with more than 10 accidents in that time period resulted in 0 points being assigned.

**Pavement Rating:** Bi-annually, the County hires a consultant to perform a pavement rating on one traveled lane of all paved (collector/arterial) county roads. Each paved collector/arterial road is rated every two years. The rating system used complies with the County Road Administration Board (CRAB) standards. The basic components of the rating system includes (horizontal and transverse cracking, patching and alligator cracking) rutting, cracking, raveling, flushing/bleeding, patching, sags/hums, crack seal condition and pavement edge condition. The rating system scores each collector/arterial roadway, once a road scores below 60, it follows a very steep curve downward in life. Usually, if a road has a good base and is maintained and rehabilitated by the time it reaches a score of 60, its life cycle can be extended for many more years. In assigning points, if a roadway scored greater than or equal to 60 it received 1 point, and if it was less than 60 it received 0 points.

**Average Daily Traffic:** The final tool for measuring the condition LOS was the average daily trips. In most cases, roadways are periodically evaluated for how much traffic uses that road on a daily basis. Traffic counting machines are placed on the roadway for a period of time (3-day, Mon. – Thurs., 72 hour), the total of which is then divided by the number of days to arrive at an Average Daily Traffic (ADT) count. Roads with less than 100 ADT were given a score of 2, 100

to less than 200 ADT roads received a score of 1 and roads with more than 200 ADT were given 0 points.

**Speed Limit:** The speed limit on a roadway segment was used as a flag to indicate potential issues that are not necessarily captured under the previous measures. Speed limits are assigned based on geometrics and on condition of the roadway. If there is a road that is a high functional classification but has a lower speed limit, the indication is that there is some geometric deficiency such as tight curves, alignment, steep grades or sight distance problems.

### **6.3.3 Application of LOS Standards (Thresholds)**

Each roadway was first evaluated according to the condition LOS measures, with scores ranging from 1 to 5. The higher the score for condition LOS, the more important the roadway is to the County and its residents. Next, the operation LOS measures were applied resulting in scores ranging from 1 to 8. In this evaluation, if the operation LOS score is lower, that is an indication that the roadway is not operating at its highest capacity because of some existing deficiency. Lastly, the farm-to-market routes were prioritized above non-farm-to-market routes because of their importance to the economic base of the County. Table 6-6 shows the weighting criteria applied to different components of both the condition and operation LOS.

Table 6-7 indicates the results of the combined condition and operation LOS measures, with the farm-to-market routes identified at the top of the list. This table will assist in generating projects to be included on the 6-year Transportation Improvement Program (TIP). Table 6-8 shows roadways that are currently secondary priorities, however, after additional studies they may be moved to the High Priority roadways list.

**TABLE 6-6: LOS WEIGHTING CRITERIA**

LOS Scoring Criteria			
Condition LOS Scoring Criteria (higher points = higher LOS)		Operation LOS Scoring Criteria (higher points = higher LOS)	
LOS Element	Scoring Protocol	LOS Element	Scoring Protocol
Farm-to-Market Route (0 or 1 point)	no = 0 points yes = 1 point	Weight Restriction	no = 1 point yes = 0 points
Tonnage Class (0 or 1 point)	no = 0 points yes = 1 point	Closure	no = 1 point yes = 0 points
Paved or Unpaved (0 or 1 point)	no = 0 points yes = 1 point	Accidents	0-1 = 3 points 2-10 = 2 points > 10 = 0 points
Function Class (0 or 1 point)	Collector = 1 point Local Access = 0 points	AADT	<100 = 2 points ≥100<200=1 point ≥200 = 0 points
Maintenance Class (0 or 1 point)	Maintenance Class 1 or 3 = 1 point		
	Maintenance Class 4 to 5 = 0 points	Pavement Rating	≥ 60 = 1 point
			< 60 = 0 points
		Speed Limit	to be used as flag
<b>Highest Possible LOS Point Total = 5</b>		<b>Highest Possible LOS Point Total = 8</b>	

**TABLE 6-7: COMBINED SCORES ~ CONDITION AND OPERATION LOS**

Road Number	Road Name	From	To	Condition LOS		Operation LOS
				Farm To Market	Total Score	Total Score
95100	Waterville N.	Airport Rd.	Logan Rd.	yes	5	1
92250	Mcginis Cnyn Rd.	Rd O Sw	End Of Gravel	yes	5	1
46150	Rimrock Mdws.	Rd 24 Nw	Sr-2	yes	5	1
94050	Palisades Rd.	Sr-28	Mp 15.83	yes	5	2
92250	Badger Mtn.	Area 2 Border	Rd O Sw	yes	5	2
94050	Palisades	End/Oil	Billingsley's	yes	3	2
92250	Badger Mtn.	End Of Gravel	Waterville S.	yes	5	3
73750	Crane Rd.	Central Ferry Cnyn.	Hill Crest Dr.	yes	5	3
95010	Brays Lndg.	Sr 97	Browns Canyon Rd.	yes	4	3
97100	Dyer Rd.	Bridgeport Hill Rd.	Rd 24 Nw	yes	3	3
97100	Crane Rd.	Crane Warehouse Rd.	Sr 173	yes	3	3
95188	Browns Canyon Rd.	Top Of Grade	Waterville North Rd.	yes	3	3
85700	Leahy Oil	Del Rio Rd	Leahy Oil Rd	yes	3	3
82130	Highland Orchard Rd.	Pearl Hill Oil Rd.	End	yes	2	3
40100	Crescent Bar	Grant Co. Line	Grant Co. Line	no	5	2
77950	Mansfield North Rd.	End Of Oil	Bridgeport Hill Rd	no	1	2

95150	McNeil Canyon	M.P. 1.7	RD 15 NW	no	3	3
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**TABLE 6-8: SECOND PRIORITY ROADS** (require study to be included on highest priority roads list)

Road #	Road Name	Limits	
41510	Cloumbia Siding Rd	SR 28	End
43010	Alstown Rd	Alstown Cutoff Rd	Rd 4 SW
43540	Alstown Rd	Kelly Davis Rd	Slack Rd
50980	Sun Cove	SR 97	Cul-De-Sac
53709	Logan Rd	Sprauer Rd	Slusser Rd
58010	Supplee Oil Rd	SR 2	Supplee Gravel Rd
64650	Heritage Rd	Atkins Lake Rd	Bechtol Loop Rd
65210	Tommy Davis Oil	SR 2	Atkins Lake Rd
65770	Heritage Rd	SR172	Bechtol Loop Rd
66760	St Andrews West	Heritage Rd	Rd O NE
76880	Moe, Grange	SR 173	SR 173
82030	Henton Rd	Pearl Hill Rd	Chalk Hills Rd
82130	Highland Orchard Rd	Pearl Hill Oil Rd	End
85700	Leahy Oil	Del Rio Rd	Leahy Oil Rd
87070	Rinker Loop	End of Oil	Del Rio Rd
88950	Barker Canyon Rd	Twin Springs Rd	End
94170	Rock Island Grade	End of Oil	Frayley Rd
94170	Titchenal Canyon Rd	Frayley Rd	Alstown Rd
95150	Rd 15 NW	McNeil Canyon Rd	SR 172
97100	Central Ferry Canyon Rd	Rd 24 NW	Crane Warehouse Rd

## 6.4 PROJECT RECOMMENDATIONS & FINANCIAL ANALYSIS

### 6.4.1 Projects To Address Deficiencies

Project Description						
Road No.	Road Name	Project Description	Project Length (Miles)	Estimated Cost Per Mile* (\$)	Project cost (\$)	Project Prioritization
73750	CRANE RD.	Pre-level/BST seal.	2.78	\$50,000.00	\$139,000.00	5
94050	PALISADES	ACP surfacing, vertical & horizontal re-alignment, culvert installation, guardrail installation and stormwater control.	15.80	\$1,000,000.00	\$15,800,000.00	6
85700	LEAHY OIL	Pre-level/BST seal.	5.07	\$50,000.00	\$253,500.00	7
95100	WATERVILLE N.	Pre-level.	13.90	\$50,000.00	\$695,000.00	8

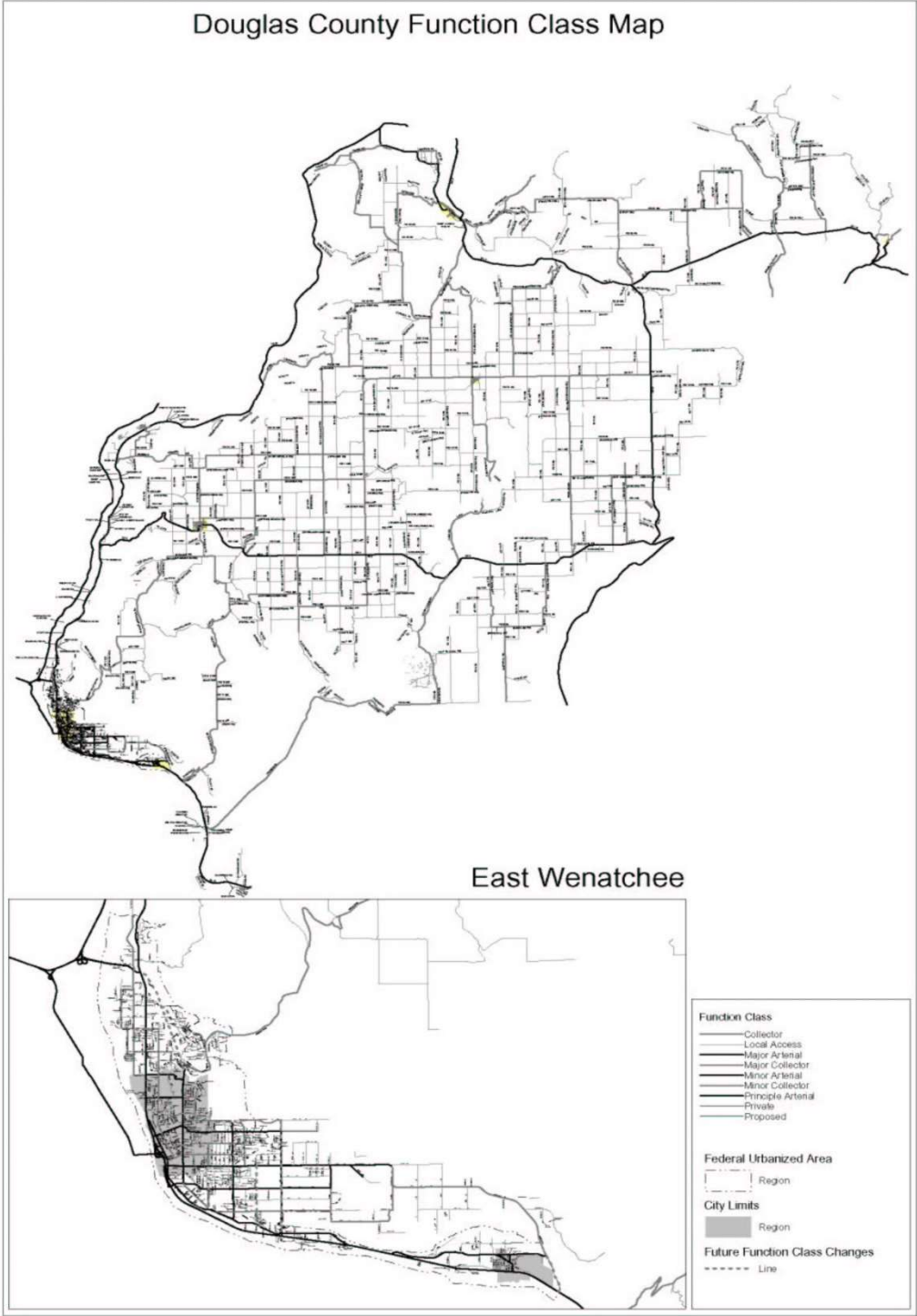
### 6.4.2 Six-Year Transportation Improvement Program

Review and adoption of the Six- Year Transportation Improvement Program (STIP) is a state requirement which implements the goals, policies, design criteria and land us maps of the

comprehensive plans and transportation elements. Proposed projects are located in a wide range of geographic areas throughout Douglas County including rural and urban areas, shoreline jurisdiction; critical areas; areas designated as agriculture; residential; and commercial. Some projects include new road segments, additional right-of-way widths, road re-alignment, road reconstruction/re-surfacing and major/minor grading activities.

Projects are individually evaluated during the design phase in accordance with local, state, and federal law. Environmental review and analysis will be conducted in accordance with the State Environmental Policy Act (SEPA) and/or the National Environmental Policy Act (NEPA), prior to the start of construction of each project.

Projects and priorities are coordinated with information contained in the Metropolitan Transportation Plan to update the STIP on an annual basis. Based on funding availability and other, qualitative issues, the TIP is drafted, reviewed and approved through a public process including the Planning Commission and the Board of County Commissioners.



**Figure 6.1(A) Map of Douglas County Function Class**

**Figure 6.1(B) Map of Douglas County Function Class**

# Douglas County Bridge Map

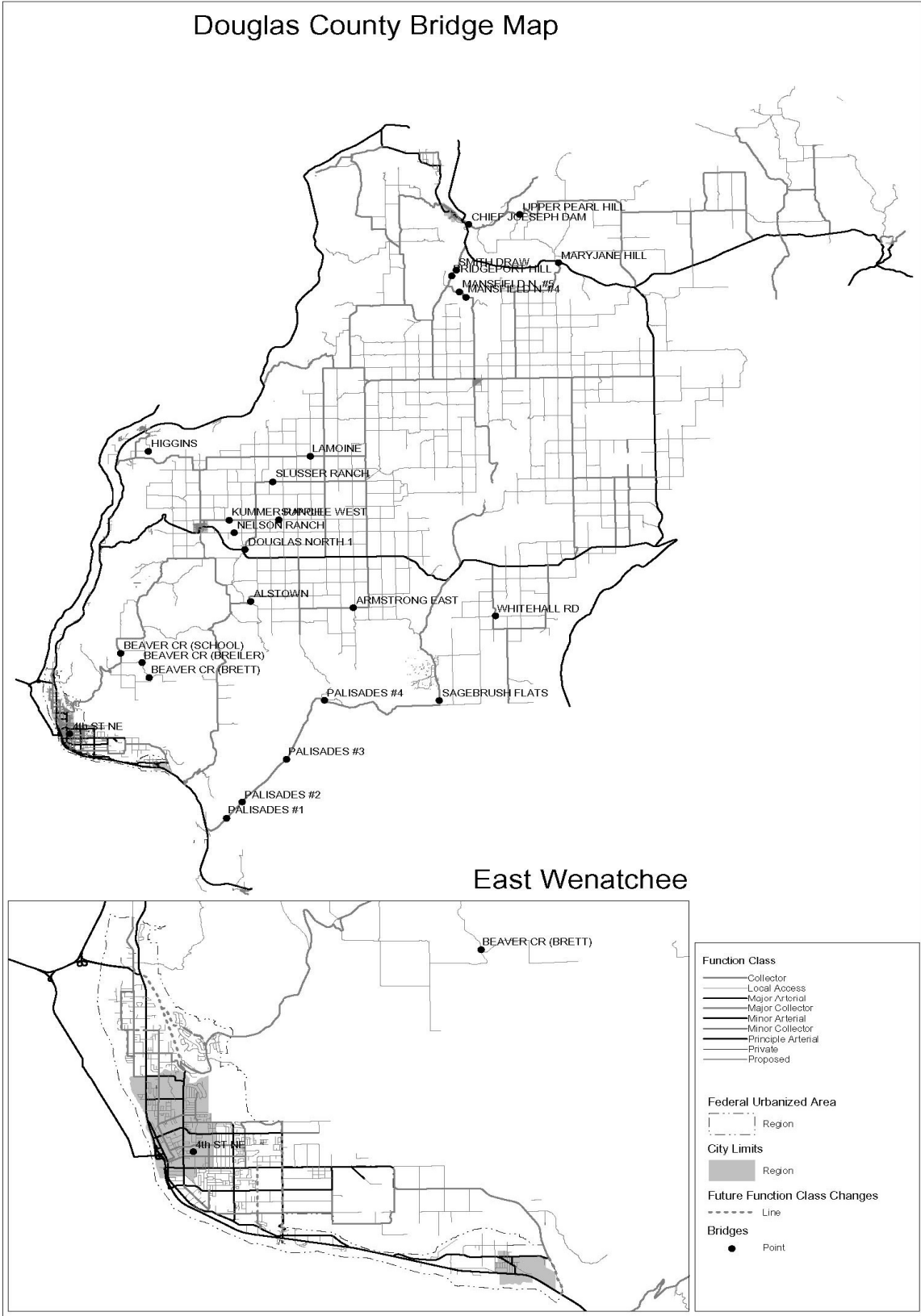
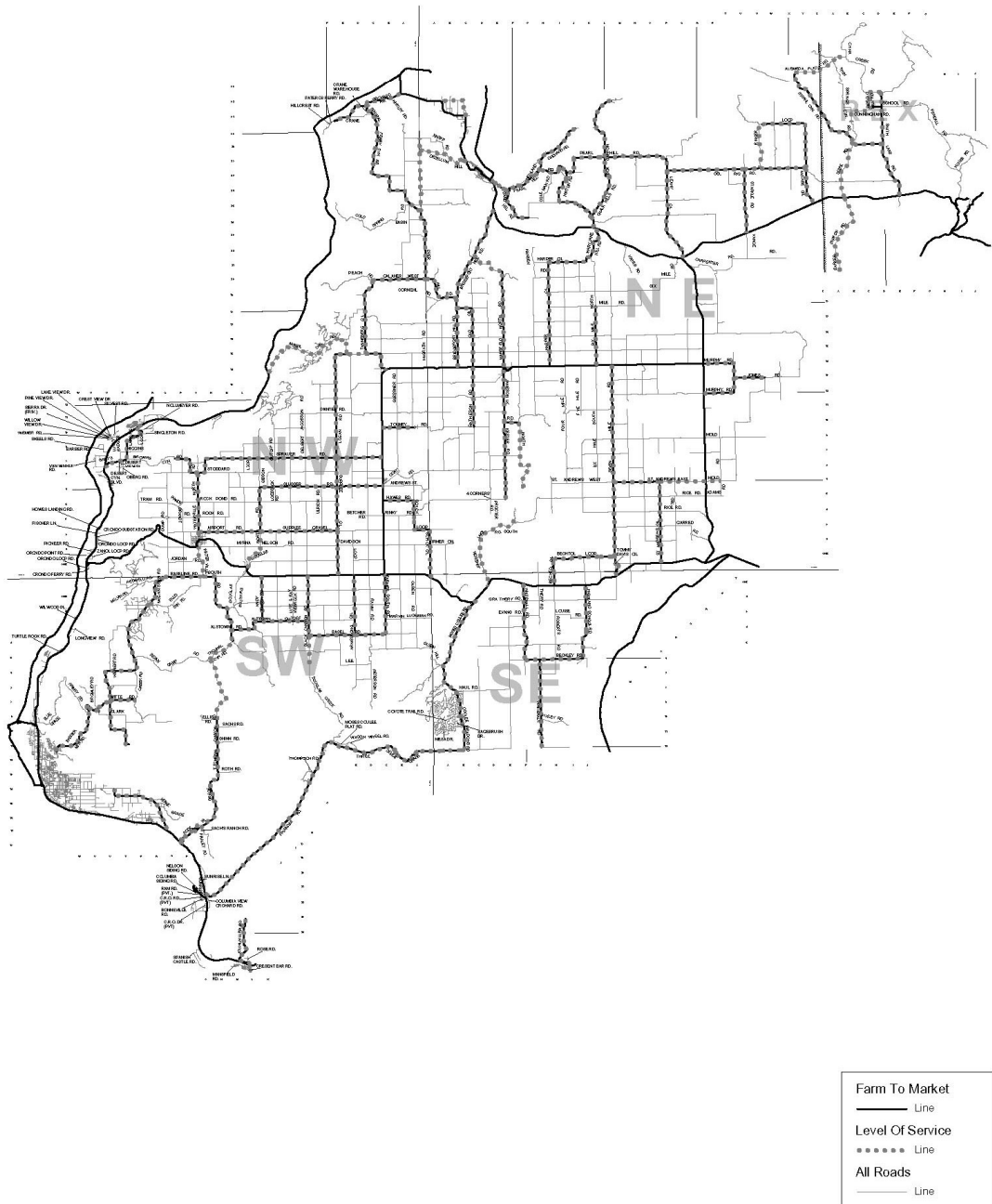


Figure 6.2 Douglas County Bridge Map

# Map of LOS and Farm To Market Routes



6.3 Map of Farm to Market and Level Of Service Roads

Figure

# Douglas County FGTS Map

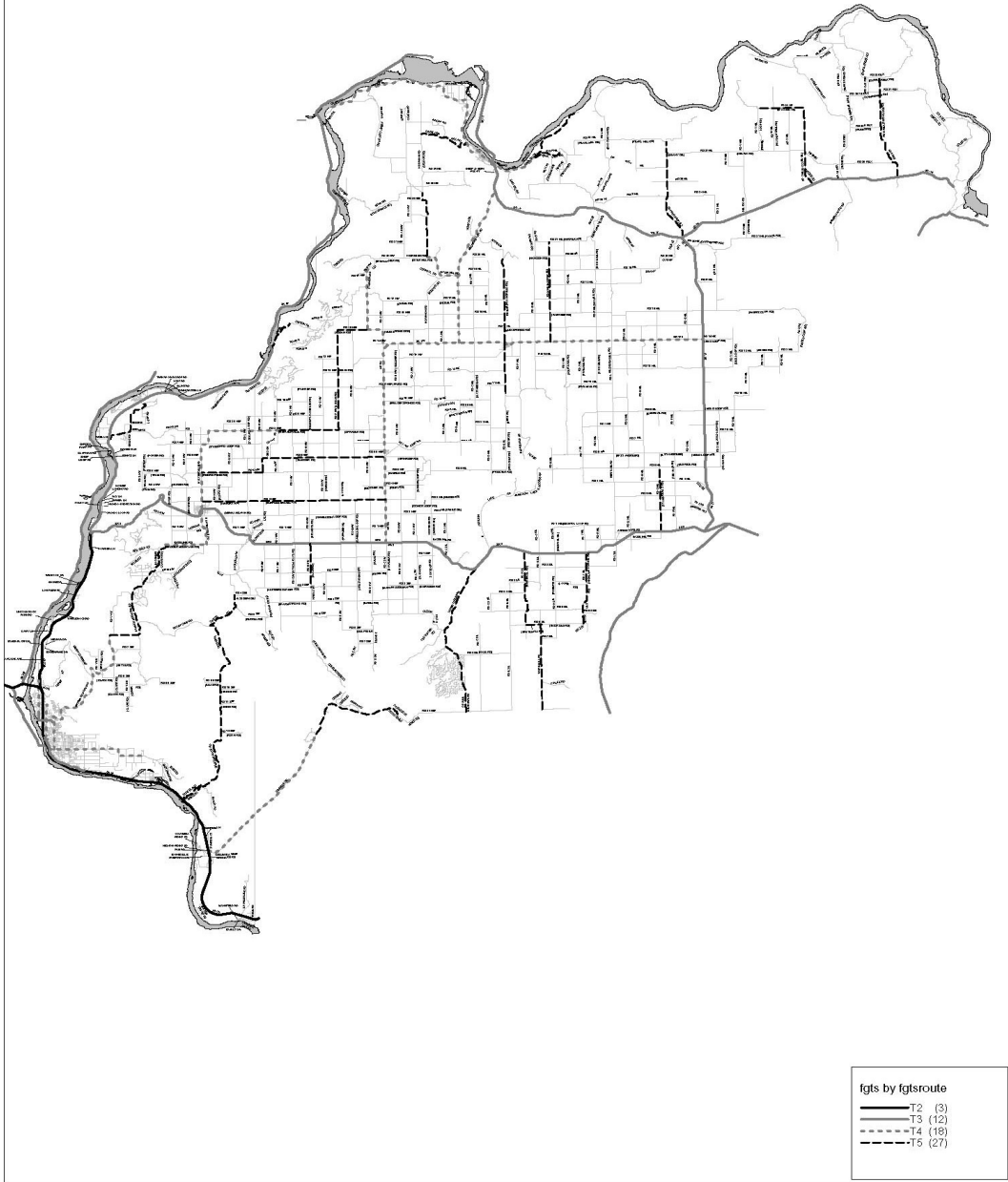


Figure 6-4 Douglas County FGTS Map

**CHAPTER 7**  
**CAPITAL FACILITIES ELEMENT**

## CHAPTER 7 CAPITAL FACILITIES ELEMENT

### 7.1 CAPITAL FACILITIES

The Capital Facilities Plan Element is intended to serve as an objectively derived guide for the orderly growth and maintenance of the County. It is a valuable tool that benefits the County in the following ways:

- a) Gain a better understanding of the existing public works systems and their capacities;
- b) Identify potential problems associated with limited revenues and increased public demands for better services;
- c) Identify potential sources and programs that may be used to fund needed improvements; and
- d) Create a continuing process of setting priorities for needed capital improvements, based on consistent background information and the other elements of the comprehensive plan.

This element serves as the framework for making decisions about capital improvement projects, as well as providing a guide for orderly growth as specified in the other elements of the comprehensive plan. Capital facilities addressed in this element include law enforcement services, fire and emergency services, general County government services, stormwater drainage, solid waste and parks/recreation. Within this document are the guiding goals and policies to assist in accomplishing the four above-stated objectives. The inventory, analysis, levels of service, financing and recommendations are discussed and analyzed in the Douglas County Capital Facilities Plan.

For those capital facilities and services that are not within the jurisdiction of the County government, this plan encourages those service purveyors to consider the information and vision presented in this document when planning for capital improvements for their future. By coordinating individual purveyors' plans with this plan, a more effective, cost efficient provision of services will benefit the public and the general purveyors.

#### **7.1.1 Capital Facilities Goals and Policies**

**GOAL:** Ensure that adequate capital facilities and services are planned, located, designed and maintained in an economical and efficient manner in order to meet existing and future needs of Douglas County as demonstrated in the comprehensive plan.

#### **POLICIES:**

- CF-1 Coordinate land use and public works planning activities with an ongoing program of long range financial planning to best utilize limited fiscal resources.
- CF-2 Assure that capital improvements which are necessary to serve public and private projects are provided when they are needed.

- CF-3 Ensure that public facilities are provided for in a manner that protects investments and maximizes the use of existing facilities.
- CF-4 Establish transportation facility levels of service standards for urban growth areas and rural/agricultural areas in the County.
- CF-5 Monitor the implementation of the capital improvement plan to ensure that the Land Use, Transportation, and Capital Facilities Elements are coordinated and consistent, and that established Level of Service standards for public facilities are achieved.
- CF-6 Plan for and provide capital improvements to correct existing deficiencies and accommodate existing and future needs.
- CF-7 Encourage compatible, multiple uses of public facilities, thereby increasing their usefulness, efficiency and cost effectiveness.
- CF-8 Require developments to pay for their fair share of impacts to capital facilities, and condition their approval to maintain adopted levels of service standards.
- CF-9 Maintain a cost-effective and responsive solid waste collection, disposal, and recycling system by pursuing the implementation of the Solid Waste Management Plan and the Moderate Risk Waste Management Plan as amended.
- CF-10 Maintain a cost effective storm and surface water collection system.
- CF-11 Encourage school, fire, water, port, park and recreation and sewer districts to pursue capital facilities planning to accommodate the needs of the expected population growth in the County and its communities.
- CF-12 Support the maintenance of a fire prevention, control, and public safety program that will protect the public from fire and other life safety hazards.
- CF-13 Implement the Capital Facilities Plan through effective partnerships and cooperation with other jurisdictions and agencies.
- CF-14 Determine the total cost of implementing proposed capital facilities prior to prioritization and inclusion in the Capital Facilities Plan.
- CF-15 Review and update the Capital Facilities Plan each year in conjunction with the annual County budget cycle.

# **CHAPTER 8**

## **UTILITIES ELEMENT**

## **CHAPTER 8 UTILITIES ELEMENT**

### **8.1 UTILITIES**

Utilities are necessary components for almost any type of development, new and existing. Utilities generally include public sewer and water systems, power/electricity, telephone, natural gas, cable and/or television service and, in some areas, irrigation.

This plan provides a brief description of the different public and private utilities that operate or could operate in Douglas County. This plan also encourages utility purveyors to maintain open communications with the County in regard to the capacities of their systems as growth and development take place.

Douglas County recognizes the distinct service providers by adopting their individual service plans. The majority of population growth is anticipated in urban growth areas, particularly in the East Wenatchee area, where service providers have established and adopted their own plans to meet the growing needs of the population. Douglas County reviews the individual service provider's plans to ensure the service extensions and anticipated development densities are consistent with the Comprehensive Plan. Service providers work directly with individuals to extend services that facilitate the development of urban densities.

### **8.2 UTILITY PURVEYORS**

#### **8.2.1 Power**

The largest power supplier in Douglas County is the Douglas County Public Utility District #1 (PUD). Power is sold nationally to retail and wholesale customers. Generally, the power distribution system lines and equipment are located in public street and road right of ways or on private utility easements.

Several other utilities currently provide power to limited areas in Douglas County. The Chelan County Public Utility District #1 provides electrical service to limited areas of the County, the Chelan Falls and McNeil Canyon areas. The Chelan County PUD generates power from Rocky Reach and Rock Island Dams. The Grant County Public Utility District provides power to southern areas of Douglas County near Highway 17. The Rural Electrification Association out of Nespelem provides power to the farthest northeast portions of Douglas County.

Several private utilities and providers have been investigating alternative sources of energy in the County, which have included wind, solar and petroleum based facilities. In order to prepare for the future of Douglas County it is important to recognize that other power generating facilities may locate here in the future. Energy facilities may vary in scope, require certain resources, or may be sensitive to land uses and infrastructure needs. Each type of facility may require different design criteria or placement criteria depending on the scope of the project and impacts to the surrounding area. Due to the availability of low cost hydroelectric power natural gas is a less common source of energy in Douglas County.

### **8.2.2 Domestic Water**

The East Wenatchee Water District is the single, largest, public supplier of domestic water in Douglas County. The district supplies the majority of the greater East Wenatchee urban area. The East Wenatchee Water District provides water to the East Wenatchee urban growth area to meet the needs of increasing urban densities. There are City-owned water systems in Bridgeport, Mansfield, Rock Island and Waterville. In addition to municipal systems in the urban areas, there are numerous small community water systems. For the vast majority of rural residences in Douglas County, domestic water is supplied through individual, on-site wells.

### **8.2.3 Irrigation Water**

There are 5 districts that provide irrigation water to the residents and agriculturists in Douglas County: Wenatchee Reclamation, Greater Wenatchee Irrigation, Bridgeport Bar Irrigation, Bridgeport Irrigation and Palisades Irrigation Districts. The majority of water from these districts supports the irrigated agricultural industry.

### **8.2.4 Sewage Disposal**

In addition to the City-owned sewage collection and treatment systems in Bridgeport, Mansfield, Rock Island and Waterville, the Douglas County Sewer District #1 provides sanitary sewer facilities to the East Wenatchee Urban Growth Area. Continued urban development in urban growth areas provides Douglas County sewer district an incentive to not only upgrade their existing system, but to also expand into areas which are in need of a community system.

### **8.2.5 Domestic Utilities**

Television and telephone services are provided by private companies. The rural areas of the county rely on privately owned and operated telephone and television services.

## **8.3 UTILITIES GOALS AND POLICIES**

**GOAL: Development in Douglas County will only occur in conjunction with the availability of adequate, cost effective provision of utilities. The installation and expansion of utilities will be coordinated to minimized cost and disruption of normal activities.**

### **Policies:**

- U-1. Recognize energy facility need and future demand in Douglas County and ensure facilities be properly located to increase effectiveness of the resource, protect the public, health safety and welfare, address land use compatibility, and the environment.
- U-2. Develop standards and criteria for locating major types of energy facilities in the County. Energy facilities and associated uses may include: solar, wind, fuel cells, hydroelectric, thermal, waste energy, ethanol, methane, gasification, nuclear and petroleum based facilities. Standards and criteria should address, type, size or scale of development, classes of areas sensitive to differing energy facilities, general layout, cumulative impacts and public input.
- U-3. Utility and energy facilities with the least impact to the public health, safety and the environment are encouraged.

- U-4. Require that development take into account the timely and concurrent provision of adequate and efficient utility systems.
- U-5. Provide utilities at service levels that are appropriate for the specific land uses and areas, thereby avoiding excess capacities that may encourage growth beyond the desired densities of an area.
- U-6. Promote multi-jurisdictional cooperation between cities, the County, special purpose purveyors and other private utilities for utility planning and implementation.
- U-7. Encourage the coordinated development, review, update and implementation of capital facility plans and plans consistent with adopted comprehensive plans.
- U-8. Utility planning activities should include an on-going analysis of the overall system physical condition.
- U-9. The cost of on-site utility improvements or site preparation for developments will be the responsibility of the development benefiting from the improvement.
- U-10. Promote the continued use, maintenance, development and revitalization of existing utilities whenever possible.
- U-11. Encourage the siting of utilities and utility corridors within rights of way.
- U-12. Encourage State agencies to streamline their requirements for provision of services by including flexible standards that are based on specific situations, as opposed to strict application of statewide standards.
- U-13. Encourage State agencies' to review applications and issue permits concurrent with local permit requirements and timelines.
- U-14. State agencies need to consider and reflect local issues, situations and concerns in developing their policies and regulations.
- U-15. The provision of electrical power to Douglas County users should be given top priority before selling power to outside entities.
- U-16. Stormwater facilities and infrastructure shall be of the type, nature and location to facilitate ease of access for required inspection, maintenance and operation. Stormwater facilities shall be located on a separate tract, where feasible overflow and access is provided from a county or city right-of-way.
- U-17. Encourage the installation and use of alternative energy sources such as wind or solar energy systems to reduce on site consumption of utility supplied energy.

**CHAPTER 9**  
**ECONOMIC DEVELOPMENT ELEMENT**

## CHAPTER 9

### ECONOMIC DEVELOPMENT ELEMENT

#### 9.1 ECONOMIC DEVELOPMENT

A robust and diverse economy is central to maintain the vitality and quality of life within Douglas County. This chapter encourages sustainable economic development activities that complement the varying geographical regions of the County by promoting growth within the capacity of the County's natural resources and existing or future proposed public services and capital facility infrastructure. Economic development in the county is primarily the role of the Port of Douglas County, however, the goals and policies in this chapter support their efforts by ensuring that land use policies and regulations are flexible enough to encourage a strong economic base and by promoting family-wage employment opportunities. Through good policy direction and development regulations the county can support steady and beneficial growth over the long-term.

The desired levels of job growth, commercial and industrial growth, and supporting strategies are integrated with the other elements of the comprehensive plan. Consistency between policies contained in the comprehensive plan elements is essential to a successful economic development strategy.

The economy Douglas County's is closely tied to resource-based activities such as the fruit industry, livestock and grain production. The single largest employment sector, with nearly one-third of all jobs in the county is based in agriculture. Table 1 shows the top five employment sectors in Douglas County in 2014. Table 2 shows the top five industries in terms of total payroll. More than two-thirds of all jobs in Douglas County were in the top five employment industries, indicating that the economy of the county is not very diverse.

**Table 1 - Top five employment sectors in 2014**

Sector	Number of jobs	Share of employment
1. Agriculture, forestry and fishing	3,258	28.6%
2. Local government	1,746	15.3%
3. Retail trade	1,366	12.0%
4. Health services	878	7.7%
5. Accommodation and food services	667	5.9%
Total covered employment	11,384	100%
All other industries	3,469	30.5%

Source: Chelan and Douglas Counties Profile, Washington State Employment Security Department, December 2015.

**Table 2 - Top 5 industries in 2014 in terms of payroll**

Sector	Payroll	Share of payrolls
1. Local government	\$82,701,979	23.1%
2. Agriculture, forestry and fishing	\$67,090,771	18.7%
3. Retail trade	\$37,521,971	10.5%
4. Health services	\$20,976,750	5.9%
5. Manufacturing	\$19,956,639	5.6%
Total covered payrolls	\$358,312,728	100%
All other industries	\$130,064,618	36.3%

Source: Chelan and Douglas Counties Profile, Washington State Employment Security Department, December 2015.

It is the intent of this Chapter together with other elements of the comprehensive plan, city/town comprehensive plans and economic development organizations to recognize and support increased economic development opportunities in the County and to encourage diversification of the local economy.

### **9.1.1 Economic Development Goals and Policies**

**GOAL: Preserve the strength of the existing agricultural industry while diversifying the economy by strengthening a wide spectrum of economic activity throughout the County in both rural and urban growth areas and maximize the positive economic impact of tourism and recreational development.**

#### **Policies:**

- ED-1 Support the retention and expansion of existing business and the recruitment of new businesses that provide family-wage jobs.
- ED-2 Encourage the local agencies and economic development partners to support the County's natural resource based industries and to attract a more diversified base of non-resource industries.
- ED-3 Encourage economic development partners to recruit and promote employment opportunities that enhance the existing economy of the county.
- ED-4 Designate a sufficient supply of land to allow for expansion of agricultural processing and distribution facilities and for agricultural related manufacturing (packaging, processing, machinery and equipment, etc.).
- ED-5 Support the designation of lands for commercial industrial development in rural service center and industrial service center, where there is evidence of community support.
- ED-6 Allow the designation of light manufacturing and other industrial development in areas without sanitary sewer where it is not feasible to extend sewer service and where acceptable and adequate alternative sewage disposal facilities can be provided.

- ED-7 Develop and implement land use regulations that are flexible enough to recognize the changing nature of business and industry.
- ED-8 Support educational programs that develop job skills to meet the needs of emerging technologies.
- ED-9 Plan for a variety of housing options to provide a supply of affordable housing.
- ED-10 Provide regulatory incentives to encourage and facilitate economic development opportunities within the County.
- ED-11 Promote and encourage phased infrastructure development that is adequate to attract and accommodate desired economic growth in Douglas County.
- ED-12 In conjunction with the city/towns, develop a process for authorizing the siting of new major industrial developments outside of designated Urban Growth Areas that is consistent with the provisions of RCW 36.70A.365 and pursuant to the Countywide Planning Policy.
- ED-13 Allow home-based businesses and cottage industries, including bed and breakfasts, in rural and agricultural areas.
- ED-14 Promote the development of entertainment and recreational facilities that to attract and capture tourism dollars within the County.

### **9.1.2 Sales and Use Tax for Public Facilities**

The State of Washington, through a series of legislative enactments, has allowed county legislative authorities of rural counties to impose a sales and use tax not exceeding nine-hundredths of one percent (0.09%) for the purpose of financing public facilities in those counties. To qualify for financing under this program a public facility must be as defined as an eligible activity by RCW 82.14.370 and be listed as an item in the officially adopted county overall economic development plan, or the economic development section of the county's comprehensive plan, or the comprehensive plan of a city or town located within the county for those counties planning under the Growth Management Act.

The Board of Commissioners has made two long-term commitments for funding under this program. The first is to guarantee payments on a \$6 million capital bond issued for a major renovation/construction project involving County administrative facilities; and the second is to guarantee payments on an extension of sanitary sewer to the Pangborn Industrial Service Area. Through the years additional grants have been made to other projects. Researching project qualifications can be time consuming and may lead to questions of priority in funding absent a list of projects to choose from.

The following listing of projects is intended to be updated annually when knowledge of emerging projects warrants their inclusion. This will satisfy the requirements of RCW 82.14.370 for listing in the county's economic development element of the comprehensive plan. This may also

qualify projects for other funding sources that may arise for projects already identified as having importance for the community.

The projects listed here would be sponsored either by the county or by other agencies or organizations. The listing of projects proposed inside the cities and towns should be listed in the comprehensive plans of those communities, and not the county, in order to be eligible for funding. Eligible activities include planning, design, engineering, environmental analysis, permitting, purchasing, construction, and for financing personnel in the economic development district office.

**Projects (not in priority order):**

- Extend Airport Way to Van Well Avenue.
- Intersection control facilities in Pangborn Industrial Service Area on Grant Road at Airport Way and Van Well Avenue; and at Van Well Avenue and 4<sup>th</sup> Street SE.
- Improve Rock Island Road from East Wenatchee city limits to Eller Street (widening, curb, gutter, sidewalks and storm sewer).
- Apple Capital Loop Trail and accessory facilities and activities including without limitation such components as trailheads, public access, reconstruction, bridges, trail extensions/additions, habitat enhancement, recreational areas, boating facilities, signs, sanitary and personal convenience facilities, utilities, etc.
- Multimodal link between Contractors Drive and Enterprise Drive in the Baker Flats industrial area.
- Public transit centers serving multi-modal users.
- Economic development district support (personnel).
- Pangborn Memorial Airport terminal and accessory activities, e.g. parking, utilities, etc.
- Sanitary sewer extensions to North Bridge (Odabashian) commercial and mixed use areas; Rock Island Road and Kentucky Avenue mixed use area; and Baker Flats industrial area.
- Pedestrian overpass over SR 28 connecting the Rock Island Road and Kentucky Avenue mixed use area with Kirby Billingsley Hydro Park.
- Storm sewer system serving the Pangborn Industrial Service Area.
- Public domestic water systems providing fire flow to the rural service center at Bridgeport Bar.
- “Bench Route” multimodal transportation corridor linking the Pangborn Industrial Service Area in Douglas County with the Olds Station Industrial Area in Chelan County.
- Cascade Avenue interchange at US 2/97 and SR 28 including associated improvements and facilities, e.g. local access streets, non-motorized facilities, stormwater management and utilities.
- Improvements to 12<sup>th</sup> Street SW to establish a southerly route connecting Pangborn Industrial Service Area.
- Domestic water transmission line between regional wellfield at Rocky Reach Dam to 37<sup>th</sup> Street NW booster station to meet demand for commercial/industrial fire flow.
- Industrial land analysis for Pangborn Industrial Service Area and Baker Flats Industrial Area; planned action master plan for Pangborn Industrial Service Area.
- Subarea corridor plan for area generally between 13<sup>th</sup> Street NW, Columbia River, Odabashian Bridge and Sunset Highway, East Wenatchee.

- Projects listed in the Six-Year Transportation Improvement Program and Capital Facility Plan, as they now exist or may be revised, insofar as the projects qualify as an eligible activity defined by RCW 82.14.370.

# **CHAPTER 10**

## **CRITICAL AREAS ELEMENT**

## **CHAPTER 10**

### **CRITICAL AREAS ELEMENT**

#### **10.1 CRITICAL AREAS**

Natural environmental systems provide important beneficial uses to the residents of Douglas County such as the supply of drinking water, management of storm water run-off and flood control, support for a wide variety of fish and wildlife species, contributions to air and water quality, and a sense of place that county residents have invested in, enjoy, and expect. Environmental protection is a goal of the GMA. Land use regulations and decisions should promote cluster development, natural area preservation or other innovative mechanisms to retain critical areas whenever possible and to facilitate the implementation of the goals and policies within the Comprehensive Plan.

Critical areas are defined as:

- Wetlands
- Areas with a critical recharging effect on aquifers used for potable water
- Frequently flooded areas
- Geologically hazardous areas, and
- Fish and wildlife habitat conservation areas.

Many of the types of critical areas overlap each other and the intent is to be consistent with applicable policies, and subsequent regulations, where these overlaps occur.

Best available science will be used when developing policies and development regulations to protect the functions and values of critical areas. Special consideration will be given for conservation or protection measures necessary to preserve or enhance anadromous fisheries. The inclusion of the best available science in the development of critical area policies and regulations is especially important to salmon recovery efforts, and to other decision-making affecting threatened or endangered species.

The Washington State Voluntary Stewardship Program (VSP) was enacted by the Legislature in 2011 to create a voluntary process which counties could “opt-in” as an alternative to traditional critical area regulatory approaches for agricultural activities. The purpose of the VSP is to encourage individual agricultural operators to voluntarily protect and enhance critical areas within areas where agricultural activities occur and to maintain and improve the long-term viability of agriculture and reducing the conversion of farmland to nonfarm uses.

Douglas County opted into the VSP in 2012. Douglas County has contracted with the Foster Creek Conservation District to develop the voluntary stewardship plan.

#### **10.2 WETLANDS**

Wetlands serve a multitude of functions that are crucial to human well-being and ecosystem balance. They are a dynamic feature of the natural environment because of their interconnectedness with the geology, climate, aquifers and a myriad of other factors in a given

area. Some of these functions include floodwater retention, sediment entrapment, water purification, groundwater recharge, maintenance of stream flows, shoreline stabilization, and habitat for fish and wildlife. It is the intent of these policies to provide the maximum protection reasonable from the encroachment of land use that would diminish the wetlands' diversity of values or degrade their quality.

Wetlands include areas that are inundated or saturated by ground or surface water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adopted for life in saturated soil conditions. Wetlands generally include swamps, bogs, hydrophytic plant communities and similar areas. Hydrophytic vegetation is defined herein as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. 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, landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands do include those intentionally created from non-wetland areas to mitigate conversion of wetlands as permitted by the County.

#### **10.2.1 Wetlands Goals & Policies**

**GOAL:** Douglas County's wetlands will be protected to the greatest extent reasonable because they provide important functions that help define the quality of life in Douglas County.

#### **Policies:**

- CA-1. Protection of and preservation of wetlands shall be preferred to alteration and mitigation of impacts to wetlands.
- CA-2. Wetlands will be rated consistent with the Washington State Department of Ecology's (Ecology) *Wetlands Rating System for Eastern Washington* (Publication Nos. 91-058 and 02-06-019, as amended).
- CA-3. Wetlands will be identified according to the methodology described in the Washington State Wetlands Identification and Delineation Manual, 1997, publication #96-94, as amended.
- CA-4. When classifying and/or assessing a wetland area, historical information on the area in question, as well as the dynamic nature of wetlands, will be recognized and considered.
- CA-5. Wetlands will be protected as much as reasonable from alterations due to land use changes that may create adverse impacts to the wetland.
- CA-6. Whenever feasible, innovative techniques that enhance a wetland and promote it as a useful, functioning part of the development will be encouraged during the development review process.

- CA-7. Coordinate wetland preservation strategies and efforts with appropriate local, state and federal agencies and private conservation organizations to take advantage of both technical and financial assistance, and to avoid duplication of efforts.
- CA-8. Development proposals that encompass wetland areas will have a site-specific review process required to determine the classification.
- CA-9. Projects containing a wetland should submit a comprehensive wetland mitigation plan that includes sufficient monitoring and contingencies to ensure natural wetland persistence.
- CA-10. Activities or uses that would strip the shoreline of vegetative cover, cause substantial erosion or sedimentation, or significantly, adversely affect aquatic life will be prohibited.
- CA-11. A wetland buffer area of adequate width will be maintained between wetlands and adjacent new development to protect the functions and integrity of the wetland. The ultimate width of the established buffer should be based on the function and sensitivity of the wetland, the characteristics of the existing buffer, the potential impacts associated with the adjacent and proposed land use, as well as other existing regulations which may control the proposed activity.

### **10.3 FISH AND WILDLIFE HABITAT CONSERVATION AREAS**

Douglas County is fortunate to have natural resources encompassing a large variety of environments. As demonstrated in national studies, many people participate in recreational activities that involve wildlife, including hunting, fishing, photography of wildlife, bird watching and feeding, among other things. Douglas County has recently begun to capitalize on these numerous natural resources through promotion of the area as a recreational paradise, and many of the smaller communities would like to use recreation oriented tourist activities to promote economic development in their area. It is the intent of these policies to recognize the importance of protecting fish and wildlife habitat conservation areas and the natural environment to the quality of life in Douglas County.

#### **10.3.1 Fish and Wildlife Habitat Conservation Goals and Policies**

**GOAL: Protect fish and wildlife habitat areas as an important natural resource for Douglas County, particularly in regard to their economic, aesthetic and quality of life values.**

#### **Policies:**

- CA-12. Identify and map critical fish and wildlife habitat conservation areas within the County and maintain a database of independent studies conducted in conjunction with projects, such as development proposals, road construction, watershed plans and habitat conservation plans. Update maps, databases, and plans as new information is received.
- CA-13. Impacts of new development on the quality of land, wildlife and vegetative resources will be considered as part of the environmental review process and require any appropriate mitigating measures. Such mitigation may involve the retention and/or enhancement of habitats.

- CA-14. The maximum amount of vegetation should be maintained in its natural state and be disturbed only as minimally necessary for the development. Disturbed areas should be re-vegetated with native vegetation as soon as possible. Re-vegetation will be maintained in good growing conditions, as well as being kept free of noxious weeds.
- CA-15. If a development proposal is located in or near a habitat conservation area shown on the reference maps, a consultation and subsequent mitigation measures, if needed, should be encouraged from the WDFW or other appropriate agency.
- CA-16. Fish and wildlife habitat conservation areas should be considered during the review for development. Preservation of blocks of habitat and connectivity between them and restoration of damaged habitat should be included as part of the review. Where a development proposal involves more intense uses, such as MPRs, all or part of the required open space (common and/or private) will be dedicated to fish and wildlife habitat conservation based on the extent and importance of the habitat.
- CA-17. Access restrictions may be necessary to protect fish and wildlife habitat conservation areas, particularly during critical times of the year. The applicant and the County will agree to the access restrictions, with recommendations from the WDFW.
- CA-18. Proper riparian management that maintains existing riparian habitat and is consistent with best agricultural management practices should be encouraged.
- CA-19. Ensure that land uses adjacent to naturally occurring wetlands and other fish and wildlife habitat areas will not negatively impact the habitat areas. If a change in land use occurs, adequate buffers will be provided to the habitat areas.
- CA-20. Activities allowed in fish and wildlife habitat conservation areas and open space will be consistent with the species located there, including all applicable state and federal regulations and/or best management practices for the activity regarding that species.

### **10.3.2 Designation**

A. Designation of fish and wildlife habitat conservation areas will use the following resources, as appropriate:

1. The Washington Department of Fish and Wildlife's Priority Habitat and Species data and maps, as amended;
2. The Washington Department of Natural Resources Heritage data and maps, as amended; and
3. Other resources as they become available.

These data will be periodically updated in the Douglas County Geographic Information System. Specific species and habitat types for designation should include at a minimum: All threatened, endangered and species of concern in state and federal lists and, open water, wetlands, riparian, island, cliff, talus slope, and shrub-steppe habitats.

## **10.4 AQUIFER RECHARGE AREAS**

Groundwater is an essential natural resource that the residents of Douglas County depend on as their primary source of drinking water. One way to assure this resource is adequately maintained is to protect areas that provide a critical recharging effect to that groundwater resource. In Douglas County, the exact nature of the aquifer(s) and their recharge areas is not fully understood. A Wellhead Protection Study has been completed in the Greater East Wenatchee Area through a cooperative multi agency effort. This study identifies the limits of the aquifers in the East Wenatchee area that are currently being used for domestic water supply.

It is the intent of these policies to recognize the importance of protecting aquifer recharge areas. Because of the inter-relatedness of the aquifers, population increases and environmental concerns, it is necessary to protect all of the critical aquifer recharge areas as they become known.

### **10.4.1 Aquifer Recharge Areas Goals & Policies**

**GOAL: Douglas County will manage groundwater resources and aquifer recharge areas to protect the quantity and quality of potable water.**

#### **Policies**

- CA-21. Aquifer recharge areas shall be designated and classified as set forth in WAC 365-190-080 (2).
- CA-22. Identify and map critical groundwater supply areas, aquifer recharge areas, areas with a high groundwater table and/or unconfined aquifers used for potable water.
- CA-23. When aquifer recharge areas are identified, they will be considered for classification as environmentally sensitive areas, and will be encouraged to be incorporated as Groundwater Management Areas.
- CA-24. Douglas County encourages the establishment of land use intensity limitations in accordance with state and federal standards. Some types of developments, such as clustering, may be encouraged to utilize community sewage disposal systems instead of dispersed individual septic systems depending on the type and potential impacts to the aquifer.
- CA-25. The County prohibits the disposal of hazardous materials within an Aquifer Recharge Area.
- CA-26. Agricultural activities, including commercial and hobby farms, are encouraged to incorporate best management practices concerning animal keeping, animal waste disposal, fertilizer use, pesticide use and stream corridor management.
- CA-27. Fertilizer and pesticide management practices of schools, parks, golf courses and other non-residential facilities that maintain large landscaped areas will be evaluated at the time of development in relation to Best Management Practices as recommended by the Cooperative Extension Service. Existing facilities are strongly encouraged to also incorporate these BMPs.

- CA-28. It is the responsibility of the developer(s) to prove that their proposal would not adversely affect the recharge of an aquifer.
- CA-29. Within aquifer recharge areas, short and long subdivisions and other divisions of land will be evaluated for their impact on groundwater quality.
- CA-30. Development which could substantially and negatively impact the quality of an aquifer will not be allowed unless it can be demonstrated conclusively that these negative impacts would be overcome in such a manner as to prevent the adverse impacts. Alternative site designs, phased developed and/or groundwater quality monitoring may be required to reduce contaminant loading where site conditions indicate that the proposed action will measurably degrade groundwater quality.
- CA-31. Reduce danger to health by protecting surface and ground water supplies from the impairment that results from incompatible land uses by providing safe and sanitary drainage.
- CA-32. Community/public sewage disposal and water systems are encouraged and may be required where site conditions indicate a high degree of potential contamination to groundwater resources.
- CA-33. When wells are required to be abandoned, the applicant shall ensure that they are abandoned according to the Washington State Department of Ecology requirements.

## **10.5 FREQUENTLY FLOODED AREAS**

Frequently Flooded Areas are defined as those areas that have a one percent or greater chance of flooding in any given year. These areas may include, but are not limited to, streams (including intermittent ones), rivers, lakes, and wetlands. The most common flooding problems occur during extreme peak runoff events of short duration in Douglas County. These peak flows will occur with very little warning from dry canyons, intermittent streams and the few perennial streams in the County. They are caused primarily by heavy rain on snow-covered, frozen ground in the spring, or from severe thunderstorms during other times of the year. In 1972, 1989 and 1995 there were significant events that caused extensive damage, primarily to agricultural lands and operations, the County and City road systems and to private residences.

Two types of frequently flooded areas exist in Douglas County:

1. The 100-year floodplain designations of the Federal Emergency Management Agency and the National Flood Insurance Program.
2. Any areas that can be demonstrated as having been part of some significant flooding event that are not included in the FEMA mapping effort.

The following categories of frequently flooded areas are established for the purpose of classification:

- **Floodways** - The channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment in order that the base flood be carried without substantial increases in flood heights.

- **Floodplains** - The floodway and the special flood hazard area.
- **Special Flood Hazard Areas** - The area adjoining the floodway that is subject to a one percent or greater chance of flooding in any given year, as determined by engineering studies accepted by Douglas County.

The intent of these policies is to promote an efficient use of land and water resources by allocating frequently flooded areas to the uses for which they are best suited. It is also important and necessary to discourage obstructions to floodways and flood flows as well as prohibiting uses that pollute or deteriorate natural waters and watercourses.

### **10.5.1 Frequently Flooded Areas Goals & Policies**

**GOAL: Protect the frequently flooded areas of Douglas County that are known to be critical parts of the natural drainage system by limiting and controlling potential alterations and/or obstructions to those areas.**

#### **Policies:**

- CA-34. Map flood hazard areas that are currently part of the Federal Emergency Management Act or Flood Insurance Rate Maps or depicted by other historical evidence, as appropriate. Regulate areas of flood hazard by maintaining compliance with the FEMA Model Ordinance required by FEMA and the State of Washington to be adopted by Douglas County.
- CA-35. Encourage planned development land uses that will not impede the flow of floodwater or cause danger to life or property. This includes, but is not limited to, filling, dumping, storage of materials, structures, buildings, and any other activities that, when acting alone or in combination with other existing or future uses, would cause damaging flood heights and velocities by obstructing flows.
- CA-36. Permit and encourage land uses compatible with the preservation of the natural vegetation to promote the maintenance of constant rates of water flow through the year and that sustains many species of wildlife and plant growth.
- CA-37. Encourage treatment of storm runoff of surface water from developed areas to prevent pollution materials, such as motor oils, paper, sand, salt and other debris, garbage, and foreign materials from being carried directly into natural streams, lakes, or other public waters.
- CA-38. Prevent the development of structures in areas unfit for human usage due to danger from flooding, unsanitary conditions, or other hazards.
- CA-39. Encourage the retention of floodplains through conservation easements or other mechanisms.
- CA-40. Develop strategies to first eliminate and second to mitigate repetitive loss properties.

### **10.5.2 Designation**

All Douglas County lands, shorelands and waters that are identified within the 100 year floodplain (Floodway and Floodway Fringe--or Special Flood Hazard Area) in the federal Emergency Management Agency report titled "The Flood Insurance Study for Douglas County" dated November 17, 1981, with accompanying Flood Insurance Rate and Boundary Maps (as amended), are designated as frequently flooded areas. This study is the best available science for designation of frequently flooded areas. Additionally, any areas evidenced as having a history of flooding, particularly in 1972, 1989 and/or 1995 are also designated frequently flooded areas.

All development within designated frequently flooded areas shall comply with the Douglas County Flood Damage Prevention Code, as it now exists or may hereafter be amended, as well as be consistent with the adopted Comprehensive Flood Hazard Management Plan.

### **10.6 GEOLOGICALLY HAZARDOUS AREAS**

Geologically hazardous areas are defined as "areas that, because of their susceptibility to erosion, sliding, earthquake or other geologic events, are not suited to the siting of commercial, residential or industrial development consistent with public health or safety concerns". These hazardous areas pose a threat to the health and safety of citizens when development is sited in areas of significant hazard. In some cases, the risk to development from geological hazards can be reduced or mitigated to acceptable levels by engineering design and modified construction practices. However, when the risks cannot be sufficiently mitigated, development shall be prohibited. The particular aspects of the different types of geologic hazards and summary descriptions are provided below.

**Erosion Hazard Areas.** Erosion is a common occurrence in Douglas County, due to hydrologic and geologic characteristics, vegetative conditions, wind and human land use. Minimizing the negative impacts of human land use on these areas reduces the damage to the natural environment as well as to human-built systems. The two major factors for erosion in Douglas County are related to wind and water erosion

**Landslide Hazard Areas (Steep Slopes).** Landslide hazard areas are those areas within Douglas County that are subject to potential slope failure. These include slopes that are underlain by weak, fine grained unconsolidated sediments, jointed or bedded bedrock, or landslide deposits, including the top and toe of such areas. It is necessary to protect the public from damage due to development on, or adjacent to, landslides; preserve the scenic quality and natural character of Douglas County's hillsides and to protect water quality.

**Seismic Hazard Areas.** Earthquakes cannot be eliminated. However, there have been no specifically identified areas in Douglas County which would pose significant, predictable hazards to life and property resulting from earthquakes and the associated ground shaking, differential settlement, and/or soil liquefaction.

**Mine Hazard Areas.** Mine hazard areas are defined as "areas directly underlain by, adjacent to, or affected by mine workings such as adits, tunnels, drifts, or air shafts." Mine hazards may also include steep and unstable slopes created by open mines. Because of the geology of Douglas County, there has been little or no historical subsurface mining that could have left areas of Douglas County honeycombed with abandoned mine tunnels. Similarly, any open mining is required to have both an approved erosion control plan and an approved reclamation plan that will address steep and unstable slopes.

**Volcanic Hazard Areas.** Volcanic hazard areas are defined as "areas subject to pyroclastic flows, lava flows, and inundation by debris flows, mudflows, or related flooding resulting from volcanic activity." Because there is no valley or river flowing through Douglas County which heads on or near a volcano, there would be no significant damage to people and/or property expected from debris flows, mudflows or related flooding resulting from volcanic activity. If there were to be a significant ash fall east of Glacier Peak, small debris flows would be possible in the rivers and valleys that flow into the Columbia River. The County is also far enough distant from the nearest volcano (Glacier Peak) to virtually eliminate the hazards of damage to people and/or property resulting from pyroclastic flows, or lateral blasts.

The intent of the following goals and policies is to reduce the threat posed to the health and safety of citizens in areas of significant geologic hazard by providing guidance for reviewing a development proposal that may be near a geologic hazard. In addition to having general statements that are applicable to all types of hazard areas, needed protection elements for each different hazard type are also included to aid in understanding their differences and providing specific measures to reduce the hazard.

Classification of these areas will be based upon the risk to development in geologically hazardous areas for erosion hazard and landslide hazard areas.

A. Erosion hazard areas

Virtually any area in the County can experience soil erosion if subjected to inappropriate grading or construction practices. The Natural Resource Conservation Service Soil Survey for Douglas County has identified soils with characteristics for erosion susceptibility if disturbed. Many of these soils may not be suitable for various types, intensities or densities of development. However, the criteria that follows, particularly the requirement for an erosion control plan (including re-vegetation) will be applied as a standard to all construction projects that involve grading and filling activities.

B. Land slide hazard areas

These policies and implementation criteria will apply to areas subject to landslides based on a combination of soil, geologic, topographic and hydrologic factors, as determined by an appropriate, qualified person or agency. They include any areas susceptible because of any combination of bedrock, soil, slope (gradient), aspect, structure, hydrology or other factors classified by the Natural Resource Conservation Service Soil Survey for Douglas County of the U.S. Geological Survey.

**10.6.1 Geologically Hazardous Areas Goals & Policies**

**GOAL:** The County will provide appropriate measures to either avoid or mitigate significant risks that are posed by geologic hazard areas to public and private property and to public health and safety.

**Policies:**

CA-41. Potential impacts and alternative mitigation measures to eliminate or minimize the impacts in identified geologic hazard areas shall be documented during the review of development applications.

- CA-42. Development proposals should be evaluated to determine 1) whether the proposal is located in a geologic hazard area, 2) the project's potential impact on geologic hazard areas, and 3) the potential impact of geologic hazards on the proposed project.
- CA-43. Where feasible, an adequate buffer of existing vegetation should be maintained around all sides of geologic hazard areas to maintain the natural integrity of the site and to protect the environment, and the public health and safety.
- CA-44. At such time there are volcanic or seismic hazards identified and mapped in the County, any application for development in or near that area must show it's location in relation to the hazard area, and/or it must be designed so that it will be as safe from any earthquake damage as a similar development which is not located in a seismic hazard area.
- CA-45. At such time there is a mine hazard identified and mapped in the County, any application for development in or near that area must show it's location in relation to the hazard area, and/or it must be designed so that it will be as safe from damage from the mine hazard as a similar development which is not located in a mine hazard area.
- CA-46. Identify and map all potential geologic hazard areas based on available information from the U.S. Geological Survey, Natural Resource Conservation Service Soil Survey of Douglas County and other agencies, as appropriate.
- CA-47. Applications for development within or in close proximity of a geologically hazardous area shall include preliminary information to assist the County in determining the need for any specialized reports from a geologist or geo-technical engineer. Review criteria will be established to assist county staff in making said determination.
- CA-48. All proposed development projects located within a geologic hazard area, or that have the potential to adversely affect the stability of one of these areas, may be required to provide studies performed by qualified consultants describing the existing nature of the hazard and necessary safety precautions. The subsequent report from the geo-technical engineer and/or geologist should clearly identify the risk of damage from the project, both on-site and off-site, whether the proposal increases the risk of occurrence of the hazard, and whether the proposal has incorporated measures to eliminate or reduce the risk of damage due to the hazard.
- CA-49. Any new residential subdivision or short plat that is determined to be in a geologically hazardous area shall have a note placed on the face of the plat and on the title report stating that the hazard is present.

### **10.6.2 Designation**

Any land containing soils, geology or slopes that meet any of the following criteria will be classified as having a known or suspected risk of being geologically hazardous areas:

1. Areas identified by the United States Department of Agriculture Natural Resources Conservation Service as having a "severe" rill and inter-rill erosion hazard;

2. Areas potentially subject to landslides based on a combination of geologic, topographic, and hydrologic factors. They include any areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors. Example of these may include, but are not limited to the following:
  - a. Areas of historic failures, such as:
    - i. Those areas delineated by the United States Department of Agriculture Natural Resources Conservation Service as having a "severe" limitation for building site development;
    - ii. Those areas mapped as class u (unstable), uos (unstable old slides), and urs (unstable recent slides) in the department of ecology coastal zone atlas; or
    - iii. Areas designated as quaternary slumps, earthflows, mudflows, lahars, or landslides on maps published as the United States Geological Survey or Department of Natural Resources division of geology and earth resources.
  - b. Areas with all three of the following characteristics:
    - i. Slopes steeper than fifteen percent; and
    - ii. Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and
    - iii. Springs or ground water seepage;
  - c. Areas that have shown movement during the Holocene epoch or which are underlain or covered by mass wastage debris of that epoch;
  - d. Slopes that are parallel or sub-parallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials;
  - e. Slopes having gradients steeper than eighty percent subject to rockfall during seismic shaking;
  - f. Areas potentially unstable as a result of rapid stream incision, stream bank erosion, and undercutting by wave action;
  - g. Areas that show evidence of, or are at risk from snow avalanches;
  - h. Areas located in a canyon or on an active alluvial fan, presently or potentially subject to inundation by debris flows or catastrophic flooding;
  - i. Any area with a slope of forty-five percent or steeper and with a vertical relief of ten or more feet except areas composed of consolidated rock. A slope is delineated by establishing its toe and top and measured by averaging the inclination over at least ten feet of vertical relief.
3. Areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction, or surface faulting. One indicator of potential for future earthquake damage is a record of earthquake damage in the past. Ground shaking is the primary cause of earthquake damage in Washington. The strength of ground shaking is primarily affected by:

- a. The magnitude of an earthquake;
- b. The distance from the source of an earthquake;
- c. The type of thickness of geologic materials at the surface; and
- d. The type of subsurface geologic structure.

4. Other geological events:

- a. Volcanic hazard areas shall include areas subject to pyroclastic flows, lava flows, debris avalanche, inundation by debris flows, mudflows, or related flooding resulting from volcanic activity.
- b. Mine hazard areas are those areas underlain by, adjacent to, or affected by mine workings such as adits, gangways, tunnels, drifts, or airshafts. Factors that should be considered include: Proximity to development, depth from ground surface to the mine working, and geologic material.

# **CHAPTER 11**

## **ESSENTIAL PUBLIC FACILITIES**

## **CHAPTER 11**

### **ESSENTIAL PUBLIC FACILITIES**

#### **11.1 ESSENTIAL PUBLIC FACILITIES**

The Growth Management Act (GMA) states that the comprehensive plan for each county and city planning under the Act shall include a process for identifying and siting Essential Public Facilities (EPF). Such facilities are typically difficult to site, such as airports, state education facilities, state or regional transportation facilities, state and local correctional facilities, solid waste handling facilities, and in-patient facilities such as substance abuse, mental health and group home facilities. GMA further indicates that no local comprehensive plan or development regulations may preclude the siting of essential public facilities.

The Regional Policy Plan sets forth specific policies for siting EPF and stresses that jurisdictions should not receive a disproportionate share of these facilities. Additionally, the siting of these facilities should be consistent and coordinated among jurisdictions, leading to a single local decision-making process where practical. County, cities and towns are required to include the following standards within their comprehensive plans and development regulations:

- A. Essential public facilities are served by the full range of services necessary to support the use;
- B. Essential public facilities located outside of an urban growth area must be self-contained or are extended services in a manner that does not promote additional development or premature conversion of lands to other uses;
- C. State-mandated siting criteria be incorporated where applicable; and
- D. Essential Public facilities may not be located on resource lands or critical areas if incompatible.

#### **11.1.1 Essential Public Facilities Goals & Policies**

**GOAL: Douglas County will promote inter-jurisdictional consistency for identifying and siting essential public facilities.**

##### Policies:

- EPF-1. Provisions will be made in development regulations for siting essential public facilities of county, regional or statewide significance.
- EPF-2. Essential public facilities will not be located in resource lands or critical areas if they are incompatible with these uses.
- EPF-3. Siting requirements will be important factors in determining whether essential public facilities will be located in urban, agricultural or rural areas. For areas within an urban growth area but outside city boundaries, these requirements will be reviewed jointly and cooperatively by the County and the city, with final authority remaining with the County.
- EPF-4. Essential public facilities sited outside urban growth areas will be self-supporting and will not require the extension, construction or maintenance of urban services and facilities.

- EPF-5. The siting of major energy facilities designed to extract, store, transport, process or refine petroleum or petrochemicals, waste by-products or other similar materials will not be permitted without extensive preliminary environmental and public review in Douglas County.
- EPF-6. Nuclear power generating facilities will not be allowed to locate in Douglas County or its cities until all environmental risks associated with the production, storage, disposal and long-term liability of radioactive or hazardous wastes can be critically evaluated.
- EPF-7. Identify and classify essential public facilities of state, county and local significance, including rationale for why the facility is essential, why it must be located in Douglas County and what characteristics make it difficult to site.
- EPF-8. Provide for broad participation by affected agencies, interests and citizens when siting essential public facilities.
- EPF-9. Establish a criteria for appropriate siting of essential public facilities and develop an inter-jurisdictional approach to siting essential public facilities.

#### **11.1.2 Criteria**

The following criteria are the minimum requirements to be considered when reviewing an application for siting an essential public facility. It is intended that these criteria be included in the development regulations designed to implement this element of the comprehensive plan.

- A. Development standards will be generated by each jurisdiction, which ensure consideration of all the issues presented in this comprehensive plan.
- B. Siting criteria will reflect the facility needs to support projected growth over 20 years and provide flexibility to accommodate technological advances.
- C. Long-term and short-term public costs will be considered important siting criteria.
- D. When siting an essential public facility consideration must be given to existing land uses and development in adjacent and surrounding areas, compatibility of the facility with these surrounding land uses, the existing zoning and comprehensive plan designation and the present and projected population density of surrounding areas.
- E. The effects on the likelihood of associated development being induced or precluded by the siting of an essential public facility must be reviewed.
- F. An essential public facility's impact to resource lands, critical areas, open spaces and historic, archaeological and/or cultural sites must be considered and addressed.
- G. When siting an essential public facility, consideration must be given to what type of public utilities and/or services the facility requires, impacts on existing systems, improvements, public costs involved and alternatives for self-contained, on-site facilities.

- H. Siting criteria will include an analysis of the urban nature of the facility, the existing urban growth near the facility site, the compatibility of the facility to continued urban growth and the location of the facility in relation to any near-by urban growth area.
- I. Siting criteria will provide site, building and other design standards that make facilities compatible with their surroundings and enable the facility to be permitted outright in appropriate zoning classifications wherever feasible.

### ***Pangborn Memorial Airport***

The following goal and policies are to recognize Pangborn Memorial Airport as essential public facilities under the Growth Management Act and are intended to preserve Pangborn Airport such that it can change with the community to meet the needs of the county, its residents, and businesses.

***GOAL: Provide state and federal system airports with reasonable protection from airspace obstructions, incompatible land uses and nuisance complaints that could restrict operations.***

#### Policies

- PA-1 Ensure that public or private development around existing airports allows the continued use of that facility as an airport. Land within aircraft approach and departure zones will be protected from inappropriate development.
- PA -2 Preserve the right of airport owners and operators to continue present operations and allow for future air transportation and airport facility needs. It is also important to consider the present and future use of private property and the rights of private property owners.
- PA -3 Douglas County will notify the airport operator, state and federal aviation agencies, at the time of initial application, of any proposed actions or projects, which would lead to development near an airport that is not compatible with the airport's operations.
- PA-4 The airport operator shall notify Douglas County, and potentially affected citizens, of any proposed operational changes which would have a significant impact on existing land uses.
- PA-5 Land use proposals, structures, or objects that would interfere with the safe operation of aircraft will be examined for compatibility as defined in CFR Title 14, FAR Part 77 and FAA Terminal Instrument Procedures (TERPS) Chapter 12, and WA 31. The object is to permit land uses which allow safe aircraft operations as defined in the documents referenced above.
- PA-6 Maintain overlay zoning to protect the airspace around state and federal system airports from airspace obstructions and incompatible land uses within the approach, transitional,

horizontal and conical surface zones, where such areas have been established by the Federal Aviation Administration.

## **11.2 PANGBORN MEMORIAL AIRPORT**

Pangborn Memorial Airport serves the counties of Chelan and Douglas, and portions of Okanogan and Grant counties, with a service area extending north to the Canadian border. Pangborn Memorial Airport is dedicated to the famous aviator, Clyde Pangborn, who landed at Fancher Field in 1931, to complete the first nonstop transpacific flight. [TZ1]

In April 2004 the airport, in conjunction with the Port Districts of Chelan and Douglas Counties, prepared an updated Airport Master Plan. This master plan identifies and plans for the needs of the airport and air service operations for the next 20 years. As the airport continues to grow in its importance to Douglas County and the region; it also grows in its impacts to the surrounding lands.

Pangborn Memorial Airport provides a critical link to the North Central Washington Region, state and national transportation system. It provides for the efficient movement of people, goods and services and serves as a commercial, cargo and general aviation airport. The airport is classified as a primary commercial airport within the National Plan of Integrated Airport Systems and as a commercial airport within the Washington State Aviation System Plan. [TZ2][TZ3]

### **Land Use Compatibility**

Over the last several decades, airports within the state and across the nation have faced increasing problems with the encroachment of incompatible development. Incompatible development can impact the operating capability of the airport as well as endanger the lives of people in the air and on the ground. As the airport continues to grow in its importance to Douglas County and the region, steps need to be taken to ensure that land use conflicts are minimized to the greatest extent possible.

The airport is located approximately one half mile from the East Wenatchee Urban Growth Area (UGA). Existing land uses adjacent to the airport are predominantly large-lot agricultural with industrial designated lands located to the north and east of the airport.

Land use compatibility with Pangborn Airport and the surrounding area is a priority for Douglas County. Several mechanisms are in place to ensure land use compatibility such as airport overlay zones which limit the density of land uses based on the likelihood of an aviation related incident.

### **Height**

To protect the operating airspace above and surrounding the airport, the State of Washington adopted RCW 14.12 Airport Zoning, which gave local jurisdictions the authority to regulate air space hazards. Air space hazards may endanger the lives and property of users of the airport and of occupants of land in its vicinity. Obstructions may also reduce the size of the area available for the landing, taking-off and maneuvering of aircraft, thus tending to impair the utility of the airport and the public investment.

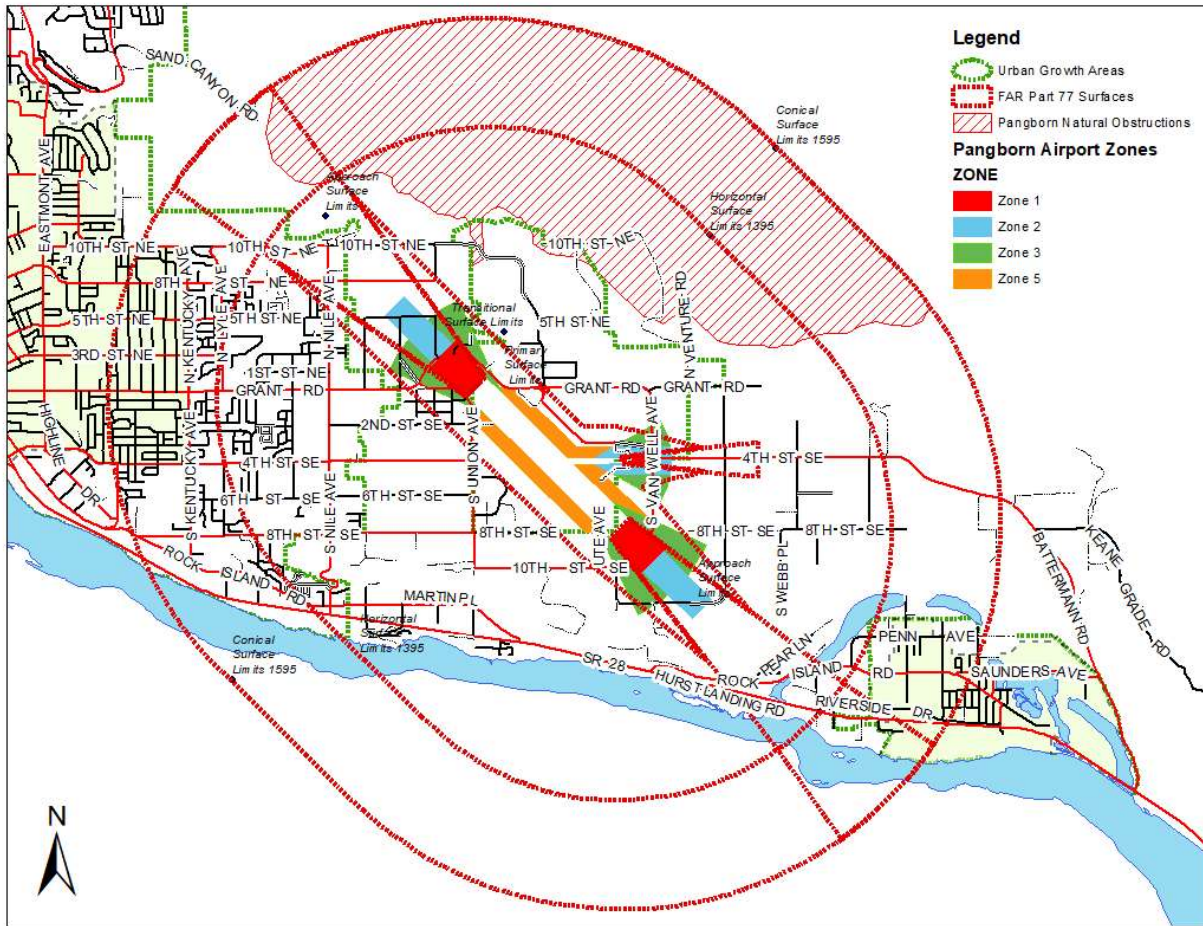
The Federal Aviation Administration (FAA) has established Federal Aviation Regulations (FAR) Parts 77 Imaginary Surfaces. Development activity that encroaches into the Part 77 surfaces may pose a hazard to navigation and reduce the size of the area available for landing, taking-off, and maneuvering of aircraft, thereby increasing the potential for an accident. If development activity is allowed that does pose a hazard to navigation, then airport operation will be adversely affected. Figure 1 shows the FAR Parts 77 Imaginary Surfaces.

### Safety

The Airport Compatibility Zones were developed using information sources recommended by the Washington State Department of Transportation Aviation Division. Available technical information for the sizing of compatibility zones categorizes all runways greater than 6,000 feet with the same zone dimensions. This approach does not attempt to balance airport protection with surrounding land uses. The Airport Compatibility Zones are sized based on a prorated approach and the use of a Runway Protection Zone sized for a  $\frac{3}{4}$  mile visibility approach.

Land use recommendations have been developed to limit the potential exposure and risk to people and property from aircraft accidents. Two strategies are employed to minimize the risks associated with potential aircraft accidents, including:

- Density guidance on the maximum number of dwellings and intensity guidance on the size and/or type of non-residential use.
- Avoiding certain types of critical land uses such as hazardous/explosive storage, public assembly of people and special uses such as schools, hospitals, and other uses in which mobility of occupants is limited, and storage of flammable or hazardous materials.



**Figure 1 Pangborn Memorial Airport Compatibility Zones and FAR Part 77 Surfaces**

Noise

Noise is the single most significant “effect” from an airport and airport operations. The best way to ensure compatibility is to reduce the number of people exposed to noise generated by airport operations and to minimize the level of exposure.

Figure 2 identifies the noise contours that are expected by the planned level of airport operations. In the areas most affected by noise, 65 dnl or higher, additional precautions should be taken to minimize this impact.

*Insert Noise Contour Map (figure 2)*

Land use compatibility refers to a pattern of land uses around the airport which will be most compatible with activities on the airport. As airport operations and the land use surrounding the airport change, compatibility becomes more important. Additionally, ensuring compatible land use is a condition of grant assurances when accepting Federal Airport Improvement Program grants. In order to help assure compatibility between the airport and development activity, land use planning strategies have been developed. A summary of those strategies are listed below.

### **Airport Compatibility Zones Land Use Planning Strategies**

#### **Zone 1 –**

- a. No new residential
- b. Limit non-residential usage to 0-5 people per acre
- c. Limit storage of large (6,000 gallons) of hazardous or flammable material
- d. Airport ownership of property encouraged within the FAA Runway Protection Zone located within Zone 1.

#### **Zone 2 –**

- a. Limit to 1 dwelling unit per 10 acres
- b. Limit non-residential usage to 0-5 people per acre
- c. Prohibit children's schools, large day care centers, hospitals, nursing homes
- d. Limit storage of large (6,000 gallons) of hazardous or flammable material

#### **Zone 3 –**

- a. Limit to, 1 dwelling unit per 5 acres
- b. Limit non-residential usage to less than 25 people per acre
- c. Prohibit children's schools, large day care centers, hospitals, nursing homes

#### **Zone 5 –**

- a. Usage limited to those specifically provided or encouraged in the adopted Airport Master Plan
- b. Limit non-residential usage to less than 50 people per acre

# **CHAPTER 12**

## **INDUSTRIAL LANDS**

## CHAPTER 12 Industrial Lands

### 12.1 Industrial

The Pangborn Industrial Service Boundary includes privately owned industrial properties, the Port of Douglas County, the Pangborn Memorial Airport and supporting facilities. The airport facility is run by the Port of Chelan County while the Port of Douglas County manages the industrial property around the airport. This site is an ideal location for industrial aviation-related activities. Activities located in this area are designed to be compatible with both airport activities and surrounding agricultural resource land.

The Pangborn Industrial Area should be developed as a master planned industrial park designed to serve the needs of the Pangborn Memorial Airport and to provide sufficient opportunities to increase the economic health of the region. One of the primary goals of the Greater East Wenatchee Area is the desire to shift from a commuter economy to a jobs-based economy. All industrial activities should be designed to project the quality of life of the Greater East Wenatchee Area and serve as a gateway to the airport area. Particular attention should be given to design as it relates to the needs of the Airport. Industrial developments should include perimeter landscaping with buffers or transitional uses adjacent to lower intensity uses and a street tree theme along Grant Road and the interior roads.

#### 12.1.1 INDUSTRIAL --- GOALS AND POLICIES

**GOAL: Promote industrial development which contributes to economic diversification, growth and stability of the community without degrading its natural systems or residential living environment.**

- L-1. Encourage the continued development of light industries that are agriculturally related.
- L-2. Encourage industrial development to locate in industrial/business park areas adjacent to major street arterials, preferably on lands not suited for residential uses or agricultural uses.
- L-3. Encourage variety and innovative design in industrial site development and encourage an attractive and high quality environment for industrial activities.
- L-4. Actively support economic development measures that serve to revitalize and promote the growth of existing industrial locations.
- L-5. Encourage aviation related industries and light industries in the Pangborn Industrial Service Area.
- L-6. Encourage, whenever possible, the extension of support facilities and services for industrial activity.

- L-7. Potential impacts on nearby properties and public facilities and services shall be identified and mitigated when evaluating industrial development proposals.
- L-8. Master planned developments are encouraged in the Pangborn Industrial Service and may be conceptual in nature and may include alternative development scenarios. Proposed master plans are expected to:
- A) Maximize the development potential of vacant and underutilized industrial zoned lands;
  - B) Promote the coordinated planning, design, and construction of public facilities;
  - C) Promote the compatibility of new development with neighboring land uses;
  - D) Facilitate the development of public and private owned property for economic development purposes in accordance with the provisions of this Comprehensive Plan; and
  - E) Support long term strategies to preserve and enhance airport operations and compliance with Federal Aviation Administration safety requirements.
- L-9. The County shall encourage and support efforts by property owners in the Pangborn Industrial Service Area to identify and address potential environmental impacts in advance of project specific development proposals. This may include but is not limited to:
- A) Encouraging property owners to address potential environmental impacts and to coordinate mitigating measures in advance of project specific development proposals;
  - B) Organizing and conducting an area-wide reconnaissance-level archaeological and cultural resource survey to identify and minimize the potential for new development to impact significant sites; and/or
  - C) Designing and constructing regional or shared storm water detention facilities in accordance with the provisions of a fair share cost allocation plan approved by benefiting property owners.
- L-10. It is the intent of the County, in partnership with affected private property owners and the Ports of Chelan and Douglas Counties, to maximize the development potential of industrial zoned lands within the Pangborn Industrial Service Area. This may include, but is not limited to:
- A) Additional adjustments to the UGA boundaries may be necessary to further account for lands to be included in Airport Safety Zone 1, public facilities, cultural resource areas, and/or areas not suitable for industrial development.
  - B) Actions that promote the efficient use of public facilities and services consistent with the logical outer boundary for the extension of urban services;

- C) Require new development connect to the sanitary sewer if reasonably available or, alternatively, install the necessary connections and commit through a written agreement to contributing their fair share toward the extension of sewer service as it becomes available; and
- D) Promote compatibility with surrounding land uses and/or that minimize potential conflicts within logical future growth area.

**Chapter 13**  
**GLOSSARY**

## **CHAPTER 13 GLOSSARY**

Definitions for terms used in the Douglas County Comprehensive Plan may be found in authorizing legislation and rules, including without limitation, RCW chapters 36.70, 36.70A and 36.70B, and various titles of the Douglas County Code, particularly DCC Chapter 14.98. The inclusion of these definitions in this document would be duplicative and potentially confusing to readers.

# **APPENDIX A**

## **Volumes of the Douglas County Comprehensive Plan**

## **Volumes of the Douglas County Comprehensive Plan**

The Douglas County Comprehensive Plan consists of several volumes that are incorporated by reference. These are:

- Douglas County Comprehensive Plan
- Bridgeport Urban Area Comprehensive Plan
- Greater East Wenatchee Area Comprehensive Plan
- Mansfield Urban Area Comprehensive Plan
- Rock Island Comprehensive Plan
- Waterville Urban Area Comprehensive Plan
- Douglas County Transportation Element
- Douglas County Capital Facilities Plan

# APPENDIX B

## Urban Growth Areas in Douglas County

### PANGBORN INDUSTRIAL SERVICE AREA DESCRIPTION

**The Pangborn Industrial Service Area is generally located within Section 16, and the south half of Sections 9 and 10 in Township 22 North, Range 21 East, W.M., Douglas County, Washington. Specifically these areas are described as follows:** that area located within the boundaries of the Douglas County Port District in a portion of Section 16, Township 22 North, Range 21 East, W.M.; that area located and described as the south 30 acres of the Southwest Quarter of the Southeast Quarter of Section 10, Township 22 North, Range 21 East, W.M. (Northern Fruit Co., Rezone No.R3-93); that area located within a portion of the South half of Section 9 and 10, Township 22 North, Range 20 East, W.M. (Battermann, Rezone No. R6-91); that area located within a portion of the South half of Section 9, Township 22 North, Range 21 East, W.M. (C&O Nursery, Rezone No. R9-93); and that area located within a portion of the North half of Section 16, Township 22 North, Range 21 East, W.M., (Recchia, Rezone R4-90); except a portion of the NW  $\frac{1}{4}$  of SW  $\frac{1}{4}$  of Section 9, Township 22, Range 21 E. WM further described in AFN 3087008.