CHELAN COUNTY COMPREHENSIVE PLAN February 1, 2000
LAST AMENDED BY Resolution 2016-09, effective February 16, 2015

Chelan County Board of Commissioners
Jim C. Lynch, First District
John A. Hunter, Second District, Chairman
Esther Stefaniw, Third District

Chelan County Planning Commission
Laura Mrachek
Keith Vradenburg
Mike Harrison
Doug Clarke
Ann Derleth (to 12/99)
Gordon Congdon
Lisi Ott
Rob LaBow
Pat Burnett

Citizen Advisory Committee Members

Chelan-Manson Study Area
Bill Harrison, Chair
Larry Deisher
Dennis Evans
Reynold Masters
Del Sherman
Lou Verellen
Robert Yount
Mary Stutzman
Myrt Griffith
Gary Piro
Jim Urness
Bob Watson

Lower Wenatchee River Valley Study Area
Mike Green, Chair (8/93-4/95)
Dean Falteisek (Chair 5/95-8/95)
Jim Bailey
Mike Cawood
John Clifford
Darrell Collins
Herb Diede
Theresa Druzak
Scott McManus
Martin Roys
Joe Rumble
Bob Rust
Chet Slack
Rod Smith
Larry Ward

Upper Wenatchee River Valley Study Area
Bob Duncan, Chair
Dick Rieman, Vice Chair
Steve Alford

Entiat Study Area
Fred Ryan, Chair
Don Auvil
Pat Hammersmith
Haven Stanaway
Keith Vrandenburg
Chuck Wolf
Dorothy Wrigley

Malaga-Stemilt-Squilchuck Study Area
Melton Utley, Co-Chair
Eric Tofte, Co-Chair
Gary Bates
John Black
Bob Brown
Tressa Compton
Gordon Congdon
Donn Etherington
Phil Gutzwiler
Tom Hale (to 8/94)
Mike Harrison
Kurt Hedeen
Scott Morrill
Laura Mrachek
Daryl Noyd
Linda Parlette
Joe Paschall
Michael Schoenwald
Ralph Styles
Herb Troxel
Ron Walter

Plain-Lake Wenatchee Study Area
Byron Dickinson, Chair
Karen Andersen

Lyman Boyd
Pat Burnett
Howard Cook
Eleanor Cullling
Peter DeVries
Wally Donaldson
Keith Goehner
Warren Hills
Ralph Kimmerly
Dave Lundin
Ken Marson
Brice Parsley
Oscar Pearson
Pat Rasmussen
Steve Raymond
Les Tiedeman

Leesa Broker
Bill Burgess, Jr.
Diane DeWeese
Peter Goddu
Del Herring (to 6/95)
John Machlis
Earl Marcellus (to 12/94)
Jan Mausser (to 6/94)
Tom Olson
Dennis Pobst
Dick Teske (to 7/94)
Scott Vollrath
Grahame Watson (from 2/94)
Glenn Week (to 6/95)
Stehekin Study Area
Cliff Courtney
Don Pitts
Liz Byerly
David Kurth
Ron Scutt
Mike Sherer
Secretary – Jeannetta Kurth

Rural Coordinating Committee Members

Lou Ellen Verellen
Priscilla Selden
Rudy Schaad
Les Dilly

George Talbot
John Black
Richard Cole
Frazier Strutzel

Bill Bourton
Mary Lou Miller-Johnson
Ron Scutt
Bob Duncan

Chelan County Department of Building, Fire Safety and Planning
Robert A. Hughes, Director; Christy L. Osborn, Assistant Director;
Glen A. DeVries, Senior Planner; And Clifford D. Wavre, Planner II

TABLE OF CONTENTS	*Page*
Introduction	
History of this Project	IN-1
What is a Comprehensive Land Use Plan?	IN-3
Citizen Participation	IN-4
Community Vision Statements	IN-4
Plan Implementation and Monitoring	IN-7
Land Use Element	
Introduction	LU-1
Inventory	LU-4
Future Needs & Alternatives	LU-14
Element Goals and Policies	LU-20
Citizen Participation	LU-20
Planning Techniques to Promote Physical Activity	LU-21
Public Facilities	LU-22
Resource Lands	LU-29
Residential Development	LU-39
Urban Growth Areas	LU-41
Commercial Development	LU-44
Industrial Development	LU-47
Open Space	LU-50
Master Planned Resorts	LU-54
Land Use Designations/Siting Criteria	LU-59
Park and Recreation Element	
Setting	PR-1
Planning Process	PR-7
Vision and Issues	PR-12
Demand and Need Assessment	PR-13
Goals and Policies	PR-22
Implementation	PR-26
Rural Element	
Introduction	RU-1
Intent	RU-2
Element Goals and Policies	RU-2
Rural Designations/Siting Criteria	RU-12

Housing Element	
Introduction	HO-1
Intent	HO-2
Definition of "Affordable Housing”	HO-3
Inventory and Analysis	HO-4
Housing Needs	HO-10
Conclusions	HO-13
Element Goals and Policies	HO-14
Capital Facilities Element	
Introduction	CF-1
Level of Service Standards	CF-1
Inventory and Planned Improvements	CF-3
Six Year Capital Facilities Financing Plan	CF-29
Element Goals and Policies	CF-33
Utilities Element	
Introduction	UT-1
Inventory and Analysis	UT-1
Element Goals and Policies	UT-6
Transportation Element	
Executive Summary	E-1
Chapter 1 – Introduction	1-1
Chapter 2 – Relationship to other plans	2-1
Chapter 3 – Agency and Public Involvement	3-1
Chapter 4 – Goals and Policies	4-1
Chapter 5 – Existing Conditions	5-1
Chapter 6 – Travel Forecasting Methodology	6-1
Chapter 7 – Transportation Priorities	7-1
Chapter 8 – Transportation Improvement Projects	8-1
Chapter 9 – Finance and Implementation Program	9-1
Economic Development Element	
Introduction	ED-1
General Economic and Income Profile	ED-2
Goals and Policies	ED-8
Appendix	
County Wide Planning Policies	A
Residential Land Capacity Analysis	B
Land Use Inventory	C

Maps	D
Malaga Vision Plan	E
Peshastin Sub-area Comprehensive Plan	F
Manson Sub-area Comprehensive Plan	G
Place Holder [for Chelan Regional]	H
Monitor Vision Statement	I
Place Holder [for Stemilt]	J
Sunnyslope Plan	K
Transportation Element Appendices	L

INTRODUCTION

I. HISTORY OF THIS PROJECT

THE GROWTH MANAGEMENT ACT
In 1990, responding to increased pressures from unprecedented population growth in this state, the State Legislature passed the Growth Management Act (GMA). The GMA requires all cities and counties in the state to do planning. The GMA required the fastest growing counties, which included Chelan County, to adopt new comprehensive land use plans in compliance with the new law. The Act set forth 13 goals that comprehensive plans are required to address. The GMA goals address the following topics:

(1) Urban growth
(2) Reduce sprawl
(3) Transportation
(4) Housing
(5) Economic development
(6) Property rights
(7) Permits
(8) Natural resource industries
(9) Open space and recreations
(10) Environment
(11) Citizen participation and coordination
(12) Public facilities and services
(13) Historic preservation
(14) Shoreline Management

COUNTY WIDE PLANNING POLICIES

The first step taken towards the development of new comprehensive land use plans was the adoption of County-Wide Planning Policies. The GMA required counties to adopt county-wide planning policies to guide the development of the comprehensive plans. A committee was formed with representation from the Board of County Commissioners, cities and community councils. The committee consulted a variety of people for input in the development of the policies.

The Board of County Commissioners adopted the County-Wide Planning Policies on May 26, 1992 (See Appendix A for complete text of this document.) addressing the following issues:

- The establishment of Urban Growth Areas
- Promotion of contiguous and orderly development and the provision of urban governmental services to such development
- Siting of public capital facilities that are of a county-wide nature
- County-wide transportation facilities and strategies
- Need for affordable housing for all economic segments of the population and the adoption of parameters for the distribution of affordable housing

- Joint county and city planning within urban growth areas and provision of innovative land use management techniques that may include use of flexible zoning processes

- County-wide economic development and employment

- An analysis of fiscal impact

- Public education and citizen participation

- Monitoring, reviewing, and amendment of county-wide planning policies

COMPREHENSIVE PLAN DEVELOPMENT

At the inception of drafting the comprehensive plan, the County and the cities of Leavenworth, Cashmere, Wenatchee, Entiat, and Chelan, opted to divide the County into 8 study areas and prepare a plan for each area. The County took the lead role, in coordination with the cities in the development of 7 sub-area plans. The City of Wenatchee took the lead role in the development of a comprehensive plan for the Wenatchee Urban Area.

In August of 1993, Chelan County established Citizen Advisory Committees (CAC's) to develop new comprehensive plans for its 7 sub-areas. These community representatives were appointed by the Board of County Commissioners and the cities mayors. The committees were diverse groups representing a variety of view points.

Two members from each citizen advisory committee served on a coordinating committee and reported back to the CAC. The purpose of the Coordinating Committee was to ensure that the development of the comprehensive plans would be completed in a coordinated fashion, as required by the Growth Management Act. A guidance document titled “Issues and Criteria for Rural Lands” was completed by the Coordinating Committee.

The Citizen Advisory Committees reviewed the guidance document produced by the Coordinating Committee as they developed sub-area plans. As the CAC's developed rural goals and policies, they discovered that there was a need for additional designations and criteria, and goals and policies that were not covered by the Coordinating Committee. Unfortunately, the Coordinating Committee did not reconvene. Part of the difficulty in the process was that the CAC's were not working on the same issues at the same time; as a consequence, many of the elements of the plans became uncoordinated and inconsistent with each other. In addition, many changes to the Growth Management Act occurred after the draft sub-area plans had been completed. The changes to the Growth Management Act had a significant impact on the criteria for rural areas.

Due to time constraints, the cities of Leavenworth, Chelan, Cashmere, and Entiat, chose to pull out of the joint process with the County and revise and adopt their own versions of the County draft sub-area plans developed by the CAC's.

Due to the requirements of the Growth Management Act regarding coordination and consistency, implementation issues, and changes made to the Act, the decision was made to develop a single county-wide comprehensive plan utilizing the work done by the CAC's and the Rural Coordinating Committee. The county-wide comprehensive plan covers the unincorporated areas outside of the city urban growth areas. Within the county-wide plan, 7 study areas are identified. Specific goals are identified for these study areas where unique circumstances specific to the study areas exist. All other goals and policies apply county-wide. The Rural Coordinating Committee was a 12 member body whose members where appointed by the Board of Commissioners to coordinate the Rural Element of the Plan. Some members of the Rural Coordinating Committee were also members of the Citizen Advisory Committees. The Rural Coordinating Committee and the Planning Commission went through a process where they identified goals and policies applicable to specific study areas, and goals and policies applicable county-wide.

The remaining unincorporated areas of the County within the urban growth area boundaries are covered by the city comprehensive plans. Consistent with the County Wide Planning Policies, and a Memorandum of Understanding with the cities, the County has committed to the adoption of the city plans to regulate the unincorporated areas of the cities urban growth areas.

This document is the product of years of work by the Citizen Advisory Committees, Rural Coordinating Committee, planning staff, the Planning Commission and the Board of Commissioners. A great deal of discussion of issues and concerns led to the development of the Plan and the goals and policies contained in it.

This Comprehensive Plan has been developed in accordance with Section 36.70A.070 of the Growth Management Act to address land uses. The plan has also been coordinated with the Chelan County County-Wide Planning Policies. This plan represents the County's policy plan for growth to the year 2017. It is recommended that the entire plan be reviewed every five years. It is also expected that continuing review and modification as appropriate should occur throughout this timeframe to assure that the plan remains a dynamic tool in planning for the needs of the County.

II. WHAT IS A COMPREHENSIVE LAND USE PLAN?

A comprehensive plan is a legal document adopted by local elected officials establishing policies that will guide the future physical development of the community. It will be used by local elected officials, planning commissions, private firms, and individuals when making decisions about land use development or changes, capital improvements programming, and the enactment of development regulations and related growth management legislation. Zoning and other development regulations must be consistent with the comprehensive plan. Periodic upgrade and revision is required to assure that the Plan adequately provides for growth, and reflects community desires, and changing conditions. The plan is divided into several chapters called "elements". This plan contains the following elements.

- Land Use
- Rural

- Housing
- Capital Facilities Plan
- Utilities
- Transportation

It is important to County residents and property owners to have an opportunity to express their concerns and goals for the future in order to maintain some local control over land use decisions that may affect them. This Plan is intended to be a vehicle to accomplish this. By clearly articulating a plan for the future of the area, the county is informed about the local implications of its policy decisions, and is able to address the concerns of the citizens. The Growth Management Act requires that state agencies comply with local comprehensive plans and development regulations. It is important to have a plan that identifies goals to help state agencies make informed decisions.

This plan seeks to provide this opportunity for growth, while preserving the positive attributes that make the County so desirable.

III. CITIZEN PARTICIPATION

The GMA stresses the importance of ongoing citizen participation in the preparation of the comprehensive plan. In addition to the utilization of citizen advisory committees to develop the plan, Chelan County has used a variety of other methods to both distribute information and obtain citizen input regarding this planning process.

In September and October of 1993, the Chelan County Planning Department conducted a telephone survey of county residents. Over 1100 phone numbers were called. A total of 724 households were contacted and 400 surveys were completed. The survey was designed to be a county-wide sampling of opinions and concerns regarding a variety of issues including crime, property rights, traffic, housing, public facilities and services, and economics.

Starting in 1992 the county distributed periodic newsletters which provided an update on the Growth Management planning process underway. These newsletters were mailed to a list of over 700 residents, neighboring communities and counties. Copies were also available at the County Planning Department.

Along with the newsletter, the Planning Department staff wrote a series of articles for the Chelan County Conservation District Newsletter, providing an overview of the Growth Management Act and planning process underway in the county.

The Citizen Advisory Committees held a public meetings to present their goals and policies developed for the Land Use Element of the comprehensive plan. The committees were seeking comment from local citizens regarding the work they had accomplished so far. Notices were mailed, and copies of the draft document were picked up by interested citizens.

IV. COMMUNITY VISION STATEMENTS

One of the first tasks completed by the Citizen Advisory Committees were the development of a vision statements. The vision statement basically describes the image that the community sees for its future. The committees spent a lot of time listing characteristics of the community and what they would like to see happen in the future. The following vision statements were completed for the different study areas.

Chelan-Manson Study Area

The intent of this comprehensive plan is to provide a guide for the development of the Study Area. The plan strives to maintain and enhance the existing quality of life that includes: culture, customs, economy, agricultural economy, sense of community, water quality, and recreational opportunities. This is a plan to promote the development of a 12 month economy utilizing the abundant natural resources of the area. This plan should provide for expansion of these opportunities, while maintaining an adequate infrastructure to accommodate this growth. Continuous public participation is warranted, with decision making and implementation at the local level. This plan will ensure the protection of individual property rights, and provide for the right to farm according to historic and recommended practices.

Entiat Valley Study Area

The intent of this comprehensive plan is to provide recommendations for the citizens of the Study Area. The plan will strive to maintain the existing quality of life that includes: culture, customs, economy, agricultural opportunities, sense of community, water quality, and recreational opportunities. This plan should provide for expansion of these opportunities, while maintaining an adequate infrastructure to accommodate this growth. Continuous public participation is warranted, with decision making and implementation at the local level. This plan will ensure the protection of individual property rights, and provide for the right to farm according to historic and recommended practices.

Malaga-Stemilt-Squilchuck Study Area

The citizens of the Malaga-Stemilt-Squilchuck Study Area believe that their greatest asset is the rural character of the community. Rural character may be defined as that mixture of open space, housing, and agricultural land uses which are believed to express and preserve the quality of life desired by the residents.

The citizens of the Malaga-Stemilt-Squilchuck Study Area envision future development that will compliment and enhance, and not unreasonably impact, our rural character, our strong agricultural economy, and natural resource based industries.

We foresee maintaining the area's high quality of life while sustaining growth that can be served with the necessary public services and, facilities. Open spaces, wildlife conservation, and recreational opportunities will be encouraged.

We foresee expansion of transportation systems to allow efficient movement of goods, services and people within the planning area and connecting with the rest of Chelan County.

We foresee the establishment of quality educational facilities to meet the needs of community growth.

We foresee varied levels of development with suitable mitigation between different land uses. We envision that the expansion of our existing residential, commercial and industrial land uses will take place in those areas already characterized by that type of use.

We foresee the requirement to support sustainable hydroelectric power generation to maintain and meet our community growth.

In recognition of the importance of preservation of existing water rights and future need for water for our community and its agricultural base; we foresee the continued support, development and expansion, and maintenance of water supplies and their associated sources.

In conclusion we envision growth that will maintain the continuity of our rural character and quality of life while protecting the private property rights of the citizens of this area.

Lower Wenatchee River Valley Study Area

The citizens of the Lower Wenatchee River Valley Study Area envision:

Future development that will complement and enhance and not unreasonably impact our natural resource-based industries, including our strong agricultural industry, and the forest and mineral resources industries;
An economic and educational climate that enables our citizens to find suitable employment within the valley;
Sustainable growth that can be served effectively and efficiently with the necessary public services and facilities, while enhancing our community's quality of life;
Open spaces and recreational opportunities, particularly along the rivers and streams, to preserve the community's rural character, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks;
Protection of the environment and maintenance of the community's high quality of life, including air and water quality, and the availability of water;
Protection of private property rights of landowners;
Adequate housing that fulfills the housing needs of all segments of the population;
Efficient transportation systems that allow the movement of goods, services and people within the community.

Upper Wenatchee River Valley Study Area

The citizens of the Study Area envision: maintaining the uniqueness of the area which combines a quality "rural/small community" lifestyle with a diversified economic base that allows orderly growth and development while preserving the beauty of the area with open spaces and enhancing the proper management of the natural environment.

This vision can be accomplished with the goals and policies in this plan and by preparing development regulations with this vision in mind. The goals and policies identified in this plan are deemed to be essential in maintaining a satisfactory quality of life for the Study Area.

Plain-Lake Wenatchee Study Area

The intent of the Comprehensive Plan is to provide guidance for future development and land use within the Plain-Lake Wenatchee Study Area. The Comprehensive Plan is an integral part of a county-wide planning effort to upgrade land use plans in accordance with the Washington State Growth Management Act of 1990 (GMA). The Plan seeks to maintain a balance of private property rights within a scenic rural community. The Plan maintains an established quality of life, including cultural and economic opportunities, and insures a rural environment.

The Study Area is in a rural setting, within the Eastern foothills of the Cascade Mountains. It includes those private and state lands in the area surrounding Plain, Lake Wenatchee, and the Steven Pass Corridor. Much of the land in this area is owned and managed by the United States Forest Service, and although these federal lands are not part of this plan, they are closely associated with the private and state lands within the Study area. A strong attraction to the people who live and visit the Study Area is its pervasive natural beauty. Wildlife, clear air and water, a rural atmosphere and sense of community, open space, relatively sparse population density, and local availability of basic services all contribute to the appeal of the area.

Preceding this Comprehensive Plan were the West Central Chelan County Comprehensive Plan of 1973, which included the Chumstick Valley, and the Upper Wenatchee River Valley Plan of 1988, which only included those areas surrounding Plain. The recent 1988 Plan involved extensive research with the community and implemented a new zone in the Plain Area.

This Plan reviews background information within the Study Area, discusses current land use and future projections, discusses elements relative to GMA, and finally, establishes goals and policies for the study area. The Plan allows for continuous public participation in the planning process decision making and implementation occurring at the local level. The adoption of the Comprehensive Plan is the first step toward achieving orderly and harmonious community action in the development of an optimum living environment.

Stehekin Study Area

The intent of this Comprehensive Plan is to provide a guide for citizens of Stehekin residing in Chelan County by addressing the “conservation and wise” use of lands in the Stehekin Valley. The plan will strive to maintain and enhance the existing quality of life: i.e. sense of community-cultural, economic, recreational, agricultural and conservation opportunities. It is also the intent to promote the exercise of individual property rights. This comprehensive plan deals with a valley which has been recognized on a national scale for its remote, isolated setting, its rich pioneer heritage, its scenic grandeur, the subtle details of its beauty and its scope of recreational opportunities. For its people, the valley is an access to rugged back-country, it is a place to fish and hunt, it is a stopping point on a boat excursion, it is a place for a summer home, it is a place to visit on a two week vacation, it is a place to work, and more.

V. PLAN IMPLEMENTATION AND MONITORING

This section outlines the plan implementation and monitoring procedures developed to measure progress in implementing the goals, policies and rationale in the Comprehensive Plan. This process also prepares County for updates in the future. These procedures address:

- Citizen participation in the process;
- Updating appropriate base-line data and measurable objectives to be accomplished in the first six-year period of the plan, and for the long-term period;
- Accomplishments in the first ten-year period, describing the degree to which the goals, policies and rationale have been successfully reached;
- Obstacles or problems which resulted in the under-achievement of goals and policies;
- New or modified goals, policies and rationale needed to address and correct discovered problems; and
- A means of ensuring a continuous monitoring and evaluation of the plan during the ten-year period.

A comprehensive plan has traditionally been a policy document with implementation through land development regulations and other ordinances. However, the Growth Management Act encourages a variety of implementation methods, regulatory and non-regulatory, which should be considered. The County will continue its public education program following plan adoption in order to provide information about the rationale and goals of the plan, as well as the changes that will take place in the County because of the plan's implementation. The county believes that broad support for the plan is crucial for effective implementation.

Pursuant to RCW 36.70A.100, Chelan County strives to develop a Comprehensive Plan that is consistent with neighboring jurisdictions. To ensure coordination the County will utilize the review process, including public participation and coordination with neighboring jurisdictions and other agencies to accomplish this goal. Examples of these coordination efforts may include processes such as RTPO, WVTC, LINK.

Furthermore, existing development regulations must be updated to be consistent with the plan within one year of plan adoption. In reviewing regulations for consistency, the county should ensure that the development patterns suggested in the plan are encouraged. In addition to the new development regulations identified in the land use plan, other regulations will be enacted as necessary to implement the land use plan.

AMENDMENTS TO THE COMPREHENSIVE PLAN

Planning is an ongoing process, and improved data or changing circumstances will require amendment to the comprehensive plan. In particular, that plan will be reviewed once a year and updated as necessary to reflect revisions to the Office of Financial Management population estimate and revisions to the Capital Facilities Plan. The

update will also address any specific concerns, clarify inconsistencies that were identified during the year and review the adequacy of the adopted level of service standards.

The community's visions provide long-range guidance for the county. To maintain consistency and allow sufficient time for decisions to take effect, these general guidelines should not be changed more than every five years. However, as specific objectives or policy are achieved, revision of the plan in each element may be required to continue progress toward the overall goals.

Amendments to the comprehensive plan can be requested by the Planning Commission or by any affected citizen or property owner. However, the plan may not be amended more than once a year, and therefore, requests for amendment are to be deferred to the time of the Plan adoption. The Planning Commission will review the comprehensive plan and propose any needed amendment. A public hearing will then be held to solicit comment. After further review, a formal recommendation will be made to the Board of County Commissioners.

The Board of County Commissioners will hold a public hearing and consider the proposed amendment to the comprehensive plan. By reviewing and updating the plan on a regular basis, the County can rely on this document in decision making and can maintain public interest and support of the planning process.

Land Use Element

I. INTRODUCTION

This Land Use Element has been developed in accordance with Section 36.70A.070 of the Growth Management Act. It represents the County's policy plan for growth over the next 20 years. The Land Use Element describes how the goals in the other plan elements will be implemented through land use policies and regulations; and thus, it is a key element in implementing the comprehensive plan.

The Land Use Element has also been developed in accordance with the County-Wide Planning Policies, and has been integrated with all other planning elements to ensure consistency throughout the comprehensive plan. The Land Use Element considers the general distribution and location of land uses; the appropriate intensity and density of land uses given current development trends; the protection of the quality and quantity of water supply; the provision of public services, stormwater runoff; and the measurement of the costs and benefits of growth.

The goals and policies contained in the Land Use Element form the basis of the land use strategy for development within the County and address the following general planning goals:

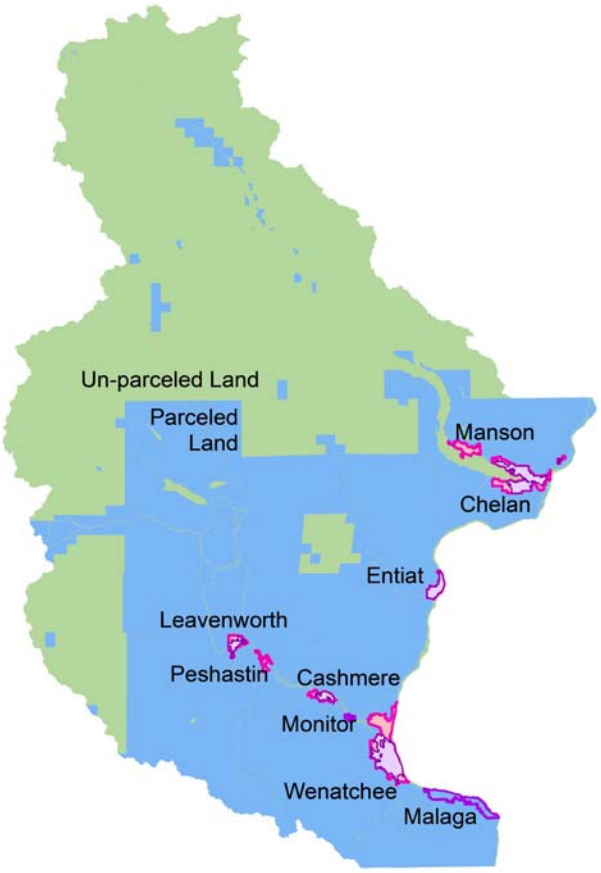
- provides for a supply and distribution of land use types to accommodate the population and employment growth projected for the planning area;
- reduces development pressures and patterns of sprawl within rural areas;
- conserves agricultural, forest and mineral resource lands of long-term commercial significance; and
- Preserves and protects critical areas, open space, and the areas of rural character.

The Land Use Element is divided into sub-elements to address the issues relating to residential, commercial, industrial, and resource based land uses; open space and recreation; urban growth areas; citizen participation and natural systems/critical areas. Each of these sub-elements contains goals and policies as well as a description and identification of issues discussed.

MAJOR LAND USE CONSIDERATIONS

While Chelan County appears to be a large county, with approximately 1.9 million acres or 2, 920 square miles, the majority of land, approximately 1.5 million acres, is in federal and state ownership. Due to federal ownership and lack of tax collection, over half, 51%, of the County has not been assigned parcel numbers. This area is identified below as "unparceled land". The remaining, parcel land, shows an additional 645,000 acres or 34% of the County is publicly owned by Federal or State government. These lands are not expected to be developed within the 20 year planning horizon. Should any development occur it is expected to be only on leased land providing small scale residential or recreation uses. Any large scale development should only occur after a Comprehensive Plan Amendment to review impacts to the County.

Land available for development, approximately 272, 000 acres or 409 square miles, is generally found along the valleys and rolling hills associated with Chelan Lake, the Entiat River, the Wenatchee River and the Columbia River. The largest populated area is located at the southeast corner of the County, in the City of Wenatchee and the Malaga LAMIRD[1] (see the Malaga Visioning document).



Due to the geography limiting access, it is not uncommon for rural areas to have isolated commercial or tourist activities. These areas, addressed below as LAMIRDs, provide residents and tourist with necessary services, reduce travel demands on limited road ways, and provide local areas with minor employment opportunities.

Rural Character

The remaining County land is able to meet current and projected population needs; however, due to constrained transportation facilities and funding resources for rural utilities, it is common to find development occurring adjacent to built infrastructure, such as roads and power lines, and where travel to services (such as grocery stores, churches or schools) is easily accessible. This type of development is not sprawl but rather follows the pattern of rural living in Chelan County with larger lot sizes used for residential living and often agricultural activities or clustered lots with large areas of protected open space.

[1] Limited Area of More Intense Rural Development; the Malaga LAMIRD is the largest rural development area within the County

Agricultural uses continue to dominate the public lands; however, changes to vineyards and wineries are starting to occur. This agricultural shift reflects the larger changes happening in the state. Many of the new agricultural activities can and are occurring on smaller parcels. These small agricultural operations include wineries, organic farms, dairy production, produce row-crops, and where appropriate fish farms. The long-term changes in agricultural operations will be determined in large part by the economic and market demands. It is the County's tradition to provide agricultural opportunities at a variety of scales, including various parcels sizes.

Open space within Chelan County is well established by the Federal and State lands; however, the County also encourages open space and property rights through cluster subdivision; open space tax credits; countywide park and recreation planning; habitat and environment protection regulations; and, through planning and restoration plans and projects. Open space provides an important function in Chelan County.

The effects of future development, in addition to listings of threatened and endangered species under the federal Endangered Species Act on the quality and quantity of water available to future and existing residents will continue to be an extremely important consideration. In addition, the overall effect of development on the scenic rural character of the County is also an important consideration. As the population increases, conflicts between agricultural and more intense land uses will continue to arise. Chelan, Manson, Stehekin, Leavenworth, Plain, Lake Wenatchee and properties located along shorelines are becoming increasingly popular for recreational and retirement property. Much of the land available for development at this time is constrained by critical areas, limited access or facilities. The County will continue to experience growth pressures on developable land.

The topography of the County limits the ability to use land for agriculture or rural development. Steep slopes and wetlands are common limitations to land use. Historically, these limitations have resulted in a pattern of land use among the hill sides and along the river valleys. Each area of the County is addressed in more detail below.
Rural industrial land uses are common throughout the County due to the historic agricultural operations and mining. Rural commercial areas provide areas for necessary services and/or recreational support in isolated regions of the County. Both rural commercial and industrial are appropriate for Chelan County's unique land uses and provide rural employment opportunities. When appropriate with the area these types of uses are vital to residents and visitors.

The numerous water bodies of Chelan County provide opportunity for a mix of recreational and residential living adjacent to the water. It is common to find small lot development, primarily residential uses, along the shoreline. These areas were commonly platted prior to GMA and reflect the County's character of resort living or rural recreational lifestyle. Newer developments may provide for smaller lots and public access when consistent with the Shoreline Master Program. Development among the hills and hilltops is relatively new but is consistent with the rural area, especially when developed in a manner which reduces road cuts and visual impacts, preserves open space, provides agriculture and/or recreational opportunities and protects environmentally sensitive areas.

Sprawl is defined, by Webster's Dictionary, as "to spread or develop irregularly or without restraint" and 'to cause to spread out carelessly or awkwardly". The negative affects associated with sprawl are a reduction in environmental and human health. Chelan County

does not support sprawl rather development of rural land is consistent with the historic density patterns; provide for the protection of the natural and critical environment and habitat; supports the Federal and State natural wilderness and park lands; protects the small rural communities; allows for recreation throughout the County; and, encourages orderly growth of populated areas through adoption of subarea plans, LAMIRD designations, and city urban growth areas in a manner consistent with the State population forecasting and Chelan County's rural character.

Coordination between the Land Use Element and the Capital Facilities Element will be essential in producing a plan with accurate projections for residential and economic development. The Land Use Plan in this element will guide decision making to achieve community goals as articulated in the Statement of Intent.

For the purposes of mapping land use designations, where land use designations abut a right-of-way, the adjacent designation shall extend to the centerline of said right-of-way. In the case where a parcel does not exist on the opposing side of said right-of-way, the entire right-of-way shall fall within one land use designation.

II. INVENTORY

The inventory presented in this element provides information useful to the planning process by listing the various existing land uses with in the County. Additional data and support documentation is located in the appendices. This inventory includes the general physical description and characteristics of key locations around the county and current land uses.

COUNTY-WIDE

Location and Geology

Chelan County was created out of Okanogan and Kittitas counties March 13, 1899. The major geographic features include: Cascade Mountains, Chiwaukum mountains, Stuart Range, The Enchantments, Bonanza Peak, and the Chelan, Wenatchee and Columbia rivers. Most of the County is nationally protected lands: Lake Chelan National Recreation Area, North Cascades National Park (part) and the Wenatchee National Forest (part).

Climate throughout the County can change drastically change between the mountains and valleys. This is most noticeable when gauging snow and rain fall.

Land Uses

The purpose of land use inventory is to describe existing land use conditions within the County. Two maps and sets of data have been developed to depict the results of the inventory (see Appendix C). The process for documenting existing conditions included compiling and summarizing recent (2004 – 2007) inventories from:

- Alliance Consulting Group (ACG) 2008
- Cashmere Inventory 2004
- Erlandsen (EA) 2004
- Malaga Inventory 2005
- East Leavenworth Rd Project 2006

Land use data was compiled by Alliance Consulting Group during the spring of 2008. The GIS data was provided to Chelan County to complete the review and analysis necessary for the 2009 Chelan County Comprehensive Plan update. This analysis replaces the 2000 land use inventory which reviewed the county by each Section and study area.

- Entiat Inventory 2006
- Peshastin Study Area Inventory 2007
- Chelan County Port District Project- 2005
- Assessor's Department of Revenue (DOR) codes

Gaps identified in the review of existing inventories were completed using assessor record information in the Chelan County parcel GIS data layer (Jan 2008) and 2006 aerial photographs (NRCS). Three types of data were excluded in the analysis – water bodies, right-of-way, and parcel data errors (slivers of area between parcels without a parcel number or data). Known critical areas were not examined as part of this analysis.

Parcels were grouped into eleven land use categories identified as:

- **Agriculture** includes parcels that are primarily devoted to agricultural activities, although residential uses may occur. Parcels two acres or less with a residential structure were classified as residential.

- **Undeveloped** includes heavily timbered areas and rangeland type areas, both public and private. Some residential uses may occur in these areas. Parcels two acres or less with a residential structure were classified as residential.

- **Mineral Resource Lands** includes areas either used for extraction or storage of rock, gravel or sand resources.

- **Single Family Residential** includes a single home (including manufactured homes) on a lot as the primary activity.

- **Multi Family Residential** includes condominiums, duplexes, multi-plexes, apartments and mobile home parks.

- **Commercial** includes any retail and/or service activity and may include secondary residential uses.

- **Industry** encompasses industrial activities, including uses related to agriculture.

- **Transportation/Utilities** include transportation, utility and/or irrigation facilities, excluding any facilities within right-of-ways.

- **Public/Quasi-Public** includes facilities such as fire stations, libraries, parks, schools, churches, and federal, state or local government owned lands which are not included in the *Forest* category.

- **Parks and Recreation** includes public or private parks and recreational activities.

- **Vacant** includes parcels that are currently unimproved and/or unused. Vacant also includes public and private lands without an identified use.

Table 1 shows the existing land uses within the County based on the land use inventory. Existing land uses in the dataset are primarily undeveloped (85%), vacant (3.8%), agriculture (5.5%) and single family residential (4.2%). These current uses may change over time and future analysis is recommended.

The agricultural land uses that occur include irrigated orchards, primarily apples, cherries and pears, fruit stands, fruit storage facilities, with some grapes and wineries. Agriculturally related industrial uses, such as packing and storage are listed as industrial. Public lands make up a small portion of the County in the analysis, but do not include Forest, Vacant or Parks and Recreation lands that are publicly owned.

There may be secondary uses occurring on some parcels, such as bed and breakfast services, home occupations, and residential units within agriculture, commercial or industrial uses which have not been accounted for in this analysis. Not included in the analysis are the rights-of-way for public roads, the Burlington Northern Railroad, and water. Multi family average parcel size is lower than actual average size due to the condominium structures having their own parcel separate from the land. The mineral resources are likely under represented as some areas designated for that use were not identified in the data sources and older inventories.

Table 1. Chelan County land use inventory.

Land Use	**Count**	**Acres**	**Percent Area of Parcel Data**
Agriculture	2253	50,828	5.5
Undeveloped	3976	785,737	85.2
Mineral Resource	3	n/a	0.0
Single Family	11563	38,945	4.2
Multi Family	317	377	0.0
Commercial	208	1,775	0.2
Industrial	79	2,182	0.2
Parks and Recreation	87	4,540	0.5
Public/Quasi Public	132	1,237	0.1
Transportation/Utilities	160	1,425	0.2
Vacant	3686	35,135	3.8
Total	**22462**	**922,181**[2]	**100.0**

Table 2 depicts the average lot size by land use category. For reference an additional column was added for lots in the urban growth areas, not including the city limits and then within the city limits.

[2] Later County analysis indicated 937,700 acres of “parceled” land and 20,927 acres devoted to City limits and associated UGAs (April 2009), leaving a 917,163 acres of land fully governed under County jurisdiction. Variation may be the result of an updated Assessor’s parcel data. Due to limited resources the ACG analysis was used as best available data. A joint planning effort in 2009 may result in modified UGA boundaries. If new boundaries are identified in a timely manner they will be addressed as part of the 2010 Comprehensive Plan update.

Table 2. Average lot size.

	Average Lot Size		
Land Use	**Outside UGAs**	**In UGAs**	**In Cities**
Agriculture	22.6	7.6	10.2
Undeveloped	197.6	8.5	4.1
Mineral Resource	7.6	11.5	-
Single Family	3.4	1.0	0.3
Multi Family	6.7	1.2	0.5
Commercial	8.5	1.3	0.5
Industrial	27.6	5.8	1.8
Parks and Recreation	52.2	9.5	3.2
Public/Quasi Public	9.4	4.0	2.1
Transportation/Utilities	8.9	3.8	1.4
Vacant	9.5	4.0	1.8
Average for all	41	1.8	0.5

The following information looks at the general characteristics of seven unique areas of Chelan County and includes a summary of the rural character of each region. Throughout the County rural character includes a diverse mix of land uses, lot sizes (including 2.5 acres and greater), and recreational open space.

CHELAN-MANSON

Location and Geology

In the Chelan-Manson area is situated between the Sawtooth and Chelan Mountains and is bounded by the Columbia River on the southeast. The Basin is dominated by Lake Chelan, a glacially formed lake approximately 55 miles long with an average width of 1.5 miles and a maximum depth of 1,500 feet. Three major tributaries: the Stehekin River, Railroad Creek and Twenty Five Mile Creek, along with numerous lesser streams feed the lake. The outfall is controlled through a hydroelectric dam and a penstock system to the Columbia River. Lake Chelan and the Columbia River are important water bodies; providing the main source of drinking water for the area, they are also important for irrigation and recreation. The water quality of Lake Chelan is a major concern to many area residents. As described in The Lake Chelan Water Quality Plan, the Lake currently has been classified as having low biological productivity and high water clarity.

Elevations in the Chelan/Manson area range from just over 700 feet above sea level along the Columbia River to 9,511 feet at the summit of Bonanza Peak, the highest point in the County. Many of the soils within the area become unstable or erosive as slopes increase. An analysis of existing land use patterns indicates that virtually all existing structural and orchard development has occurred on those lands below 2,000 feet in elevation and on less than a 20% slope. The geology is characterized by underlying rock formations covered by a shallow mantle of soils in the valleys.

There is a wide variety of soil conditions in the planning area. Throughout much of the area, the soil is underlain with alluvial deposits and glacial drift. Volcanic pumice and ash from the Glacier Peak region have added substantially to the depth and character of the soil in many areas. The mountainous terrain, with characteristically steep slopes and high elevations,

consist largely of rock outcroppings and shallow soils. The Soil Conservation Service has classified 84% of the Lake Chelan Basin area as being forest. Lands below the forest level consist of grasses, sagebrush and shrubs, with the more level areas developed as crop land.

The climate is characterized as "marine west coast", with hot, dry summers and mild to severe winters. Temperature and precipitation vary widely depending on the elevation and proximity to the Cascade Crest. Lake Chelan exercises a local moderating influence on temperatures which adds to the suitability of the area for orchard production.

The thermal winds around Chelan Butte provide national and international hang gliding and parasailing opportunities. With development of access to the top of the Butte, parking, launches and other facilities, the Sky Park is now renown as one of the best hang gliding areas and facilities in the world.

Vegetation

Fauna is found in three specific habitats: the wetlands along the Columbia River and the Lake Chelan shorelines, the canyon/steppe habitat of the steep drainage's and the urban areas of Manson, Chelan and Chelan Falls. The Chelan Butte Wildlife Refuge is a 12,000 acre game refuge. The property was purchased by the Chelan County PUD #1 in 1967 as a mitigating measure for the construction of the Rocky Reach Hydroelectric Dam. The refuge is primarily inhabited by game birds and occasionally migrating big game animals. The area is presently managed by the Washington State Department of Fish and Wildlife.

Land Uses

As stated above, most development has occurred below the 2,000 elevation on slope of less than 20%. The area enjoys a variety of recreational uses with two urban growth areas: City of Chelan and unincorporated Manson, the incorporated City of Chelan, and a developed community of Chelan Falls.

Most development is concentrated around the lower end of Lake Chelan, where private land dominates. The upper portion of the basin lies within the North Cascades National Park and the Lake Chelan National Recreation Area, while the area between is in the Wenatchee National Forest, a portion of which is in the Glacier Peak Wilderness Area.

Rural Character

Chelan and Manson communities provide urban services within defined boundaries. The remaining portion of the region is characterized by a variety of parcel sizes containing a mix of orchards and vineyards, wineries, large estate homes, golf courses, ranchettes, open space, pasture land. To the west access roads become primitive, private or forest service which greatly reduces the number and types of land uses. Higher levels of development, primarily residential uses, are common along the lakes. These homes provide for the rural recreational lifestyle and character of the area. Development among the hills and hilltops is relatively new but is consistent with the rural area, especially when developed in a manner which reduces road cuts and visual impacts, preserves open space, provides agriculture and/or recreational opportunities and protects environmentally sensitive areas.

ENTIAT VALLEY

Location and Geology

The Entiat Valley area encompasses the Entiat River Basin. The Basin is shaped like a triangle with the Columbia River forming the base and the valley lying between the Chelan and Entiat Mountains. The Entiat River begins at the terminus of the Entiat Glacier on Mt. Maude and flows approximately 50 miles into the Columbia River at the south end of the City of Entiat. The drainage is generally long and narrow, with numerous small tributaries flowing into the main river. The north fork of the Entiat River and the Mad River are the largest tributaries. Not only do these bodies of water and their tributaries provide the main source of drinking water for the area, but they are also important for irrigation and recreation.

The climate is also characterized as “marine west coast”, with hot, dry summers and mild to severe winters.

Elevations in the area range from just over 700 feet above sea level along the Columbia River to 9,249 feet at the summit of Mt. Fernow. Many of the soils within the area become unstable or erosive as slopes increase. Consistent with development patterns in Chelan/Manson, virtually all existing structural and orchard development has occurred on those lands below 2,000 feet in elevation and on less then a 20% slope. Throughout much of the area, the soil is underlain with alluvial deposits and glacial drift. The geology of the Entiat area is igneous bedrock with granite and diorite predominating.

Vegetation

Vegetation in the valley depends to a great extent on the elevation, with most of the land above 1,500 feet being forested. Lands below the forest level consist of grasses, sagebrush and shrubs. The more level sites have, for the most part been developed as crop land, with orchards generally occurring where irrigation has been possible.

Land Uses

The Entiat basin is primarily natural habitat area with rural residential primarily along the Entiat River. Development is limited by single public access up the valley. The City of Entiat and associated urban growth area are located at the base of the Entiat River along the Columbia.

Rural Character

As noted above, the Entiat Valley is a long narrow valley along the Entiat River, over forty miles long. The area provides for several pockets of residential development and rural commercial or businesses necessary to support the isolated lifestyle. Parcels sizes vary greatly due to ownership and buildable area. Along the river there are portions of land which provide generally flat developable land which hills and steep slopes primarily contain larger parcels of land which help protect critical areas. Residential structures are mixed in among the natural environment. Mining, timber activities and ranchettes are common. Higher levels of development are common along the eastern portion of the river, closer to the main highway and the City of Entiat. Several branch roads provide access to residential and recreational land uses among the mountains adjacent to the river. Future development and clustering would be compatible when developed in a manner which reduces road cuts and visual impacts, preserves open space, provides agriculture and/or recreational opportunities and protects environmentally sensitive areas.

MALAGA-STEMILT-SQUILCHUCK

Location and Geology

The Malaga-Stemilt-Squilchuck area covers the southeast corner of the County. It includes Pitcher Canyon, Halverson Canyon, Mission Peak, Wenatchee Heights, Jumpoff Ridge, the Malaga and Three Lakes Communities, Rock Island Dam and vicinity, and the drainage basins of Squilchuck Creek, Stemilt Creek, and Colockum Creek. The area is bordered by the Columbia River to the north and east, and by the Kittitas County boundary to the south.

Land Uses

Chelan County's first irrigation ditch was built in Malaga to serve the orchards and vineyards planted by early settlers. Malaga was named for the grapes which were grown there for many years. The town site of Malaga was originally platted in 1903. Development of the Alcoa plant in the early 1950's stimulated residential development in the area. Most of the recent development has occurred southwest of the original town site especially around Cortez Lake which is part of the Three Lakes residential area. In 2006, Malaga completed a visioning planning document which defined the LAMIRD boundary and set appropriate land use designations (see Appendix E).

The Stemilt-Squilchuck Community Vision (see Appendix J) addresses the areas primary land uses and goals. The area includes the Wenatchee Heights area is a large plateau overlooking the Wenatchee Valley. The Heights contains several large orchard tracts. Primary crops include apples, cherries and pears. Residences are scattered throughout the area. The Stemilt Hill is another large agricultural area. The area is well known for its high quality cherry crop. Most residential development is scattered throughout the orchards. Colockum Creek, Jumpoff Ridge, Stemilt Basin, Mission Ridge comprise mainly undeveloped open spaces varying from grassland to forest. Primary land uses in those areas include rangeland, timber production and recreation. Recreation, industrial development, and agriculture are the most significant contributors to the economic base of the planning area. Mission Ridge ski area is located in the upper most portion of the planning area and is accessed by way of Squilchuck Road.

Rural Character

Malaga's unique rural character is addressed in large part by the Malaga Plan (Appendix E); however, the region outside the plan provides a rural character unlike any other in the County. This area is known for widening roadways that hug the hill sides. Rural farm life is most common with early morning tractors, spraying, farm worker housing, ranches are common were water rights are available. Larger parcels of land with dry farms or natural landscape are common as the roads turn private or end. Moving to the south of Malaga the rural character is defined by industrial uses, primarily the Alcoa plant. Future development and clustering would be compatible when developed in a manner which reduces road cuts and visual impacts, preserves open space, provides agriculture and/or recreational opportunities and protects environmentally sensitive areas.

LOWER WENATCHEE RIVER VALLEY

Location and Geology

The Lower Wenatchee River area includes the City of Cashmere and the communities of Monitor and Sunnyslope, Ollala, Hay, Nahahum, Warner, Warm Springs, Brender, Brisky, Tripp, Yaksum and Fairview Canyons, Mission, Brender and Swakane Creeks.

This area was first settled by members of the Wenatchi Indian Tribe. Where Cashmere now stands, the winter village of Ntuatckam was located and had a population of about 400 in

1850. Missionaries founded a small mission near the present site of Cashmere in 1863. In 1870, the first irrigation ditch in the valley was built which permitted irrigation around the mission. Other permanent settlers began arriving around 1881. They first settled in the Monitor area, but gradually homesites could be found in all areas of the Wenatchee Valley. The first major irrigation project, the Peshastin Ditch, was completed in 1890 to serve Cashmere and Dryden. The completion of the Great Northern Railway through Wenatchee in 1892 provided the impetus for undertaking the construction of the Highline and Icicle Canals. Completed in the early 1900s, these canals provided a source of water for orchards on the north and south sides of the Wenatchee River.

Today, the agricultural and services industries are the most significant contributors to the economy of the planning area. Orchards are located throughout much of the lower valley between Dryden and Sunnyslope. Major crops include apples, pears and cherries. Services industries are found primarily in the incorporated City of Cashmere and the unincorporated community of Sunnyslope. In 2008 Sunnyslope was included in the City of Wenatchee Urban Growth Area (see Appendix K).

Rural Character

This region of Chelan County provides areas of flat or rolling hills development for orchards and residential living among the numerous streams, hills and natural habitat areas. The rural environment is characterized by orchards in the valley and on the lower elevations of the rolling hills. Preservation of farming rights is important to the regional. Along the primary river – the Wenatchee River, and the highway there are several communities which provide small town living and work opportunities. These towns are a source of great pride to the local residents. They represent the best of small town living with concentrated development in a core “downtown” and residential homes, and rural public services, such as a post office or school. These areas also contain industrial processing facilities necessary for the agricultural actives. Moving away from the Wenatchee river valley and orchards, land to the north is characterized by evergreen trees while the southern portion of the valley’s undeveloped land contains natural grasses, shrubs and occasional trees. Future development and clustering would be compatible when the development was consistent with farming rights, reduced road cuts and visual impacts, and protects environmentally sensitive areas.

UPPER WENATCHEE RIVER VALLEY

Location and Geology

The Upper Wenatchee River Valley area includes portions of the Wenatchee River, Chumstick Creek, Peshastin Creek and Icicle River Valleys, including the City of Leavenworth, the Urban Growth Area for Peshastin and the community of Dryden.

The topography of the west and north is a direct result of large mountain glaciers that formed in the Icicle, Tumwater, and Chumstick Canyons. Glacial action was responsible or deepening and smoothing the valley floors. These glaciers probably terminated along the Mountain Home Road, to the southeast of Leavenworth, where there is evidence of a terminal moraine.

Throughout much of the area, the soil is underlain with alluvial deposits and glacial drift. Volcanic pumice and ash from the Glacier Peak region have added substantially to the depth and character of the soil in many areas. The mountainous terrain, with characteristically steep slopes and high elevations, consist of largely of rock outcroppings and shallow soils.

The Wenatchee and Icicle Rivers and supporting tributaries are important bodies of water. Not only do these bodies of water and their tributaries provide the main source of drinking water for the area, they are also important for irrigation, recreation, and fish and wildlife habitat.

Rural Character

Most of the Upper Wenatchee River Valley contains evergreen mountains with residential development along the rivers and lakes. The development areas are “pockets” of higher densities surrounded by natural lands. Land north and east of Leavenworth contains several unofficial communities – Tumwater, Chumstick, etc, which are expected to continue growth patterns of smaller lots sizes along developed roads and water ways. Land to the west of Leavenworth is extremely limited by the mountains and steep slopes. Small parcel sizes are common due to the building area and ownership patterns. Future development and clustering would be compatible when developed in a manner which reduces road cuts and visual impacts, preserves open space, provides recreational opportunities and protects environmentally sensitive areas.

PLAIN-LAKE WENATCHEE

Location and Geology

The Plain/Lake Wenatchee area is located on the east slope of the Cascade Mountains in west central Chelan County, roughly within the boundaries of the Lake Wenatchee Range District of the Wenatchee National Forest. It is comprised of a number of river valleys which feed into Lake Wenatchee and the Wenatchee River in the Cascade Mountains in North Central Washington State.

Much of the area is mountainous forest land designated as National Forest. Most of the private land in the area is concentrated along the major water bodies and transportation routes.

Due to steep unstable slopes, floodways, wetlands and other critical areas, much of the area is not suitable for development. Development is also constrained by designated resource lands. Current development has occurred on limited areas around the river edges, Lake Wenatchee and Fish Lake.

There are 30 different soil types in the area. Of primary concern is the limitation for septic tank absorption fields, based on soil types. Three of the soil series, the Brief, Burch and Chiwawa have only slight limitations for septic tanks and are therefore desirable soils to develop. The remaining 27 soil types have septic tank limitations.

The area has two large lakes of state-wide significance: Lake Wenatchee and Fish Lake. There are also dozens of smaller alpine lakes in the Wenatchee National Forest, which includes portions of three different wilderness areas. Lake Wenatchee and Fish Lake support a number of recreational uses. There are also a number of significant rivers including: Wenatchee River, Chiwawa River, Nason Creek, Little Wenatchee River, White River, Napeequa River, Phelps Creek, and Whitepine Creek.

Rural Character

Most of the Plain-Lake Wenatchee area contains residential homes among the evergreen mountains with denser populations along the lakes and rivers. This is consistent with the rural recreation opportunities of the area. Plain provides a community area with commercial

services and a public post office and school. Development is limited by ownership and parks but future development of recreational support services would be consistent with current activities. Future development and clustering would be compatible when developed in a manner which reduces road cuts and visual impacts, preserves open space, provides recreational opportunities and protects environmentally sensitive areas.

STEHEKIN

Location and Geology

The Stehekin area includes the northeastern most portion of the Lake Chelan National Recreation Area, extending to the County boundary and the entirety of the northwest end of Chelan County, including that part of the North Cascades National Park that falls within the County boundary. The Stehekin area is impacted by the National Park Service 1995 General Management Plan for the Lake Chelan National Recreation Area. The Park Service manages the majority of federal property in the Stehekin. There are about 820 acres of private land, classified as single family in the above tables, intermingled with federal land administered by the National Park Service and commercial forest lands.

The Stehekin Valley is a U-shaped, glacially-carved canyon in the North Cascades. The valley is nearly 6000 feet deep, and a mile or less wide as it extends 25 miles from Lake Chelan to the Cascade Crest. The valley floor is relatively flat with very little slope. The walls rise abruptly on each side of the river; hence, all construction has occurred on the floor of the valley. It is prone to flooding. Efforts have been made to move residential structures from the flood plain/way areas to higher ground.

The surface waters of the Stehekin River system, including the upper portion of Lake Chelan, can be characterized as clear and cold, with high oxygen content and low fertility. During major floods, the river spills its banks and occupies its floodplain, moderating the ultimate height of the flood's crest.

Native trees include western red cedar, Douglas and grand firs, ponderosa and white pines, big leaf, Douglas and vine maples, dogwoods, alders and cottonwoods. Limited logging, and timber cutting for firewood have opened some areas to change. Taking advantage of such change, or adapting to it, have been mule deer, black bears, coyotes and cougars, along with numerous small mammals and birds.

Rural Character

Most of the Stehekin is undeveloped federal land. A small community along the northern most shore of Lake Chelan continues to develop and grow as a recreation tourist service center. The area is spotted with remote cabins and is not expected to develop. Should future development or clustering occur it would be compatible when developed in a manner which reduces road cuts and visual impacts, preserves open space, provides recreational opportunities and protects environmentally sensitive areas.

NATURAL SYSTEMS/CRITICAL AREAS

The GMA states that counties should "protect critical area." Critical areas include the following areas and ecosystems: (a) wetland; (b) areas with a critical recharging effect on aquifers used for potable water; (c) fish and wildlife habitat conservation areas; (d) frequently flooded areas; and (e) geologically hazardous areas.

The GMA requires the adoption of interim development regulations for protection of these critical areas. The County has completed the planning process for developing these regulations following an extensive citizen participation process. Many of the issues and concerns that guided the development of the critical area regulations were discussed and addressed in the comprehensive planning process that led to the formation of this document.

The GMA also requires the provision for the protection of the quality and quantity of ground water used for public water supplies. The land use element is also required to review; where applicable, drainage, flooding, and storm water run-off and to provide guidance for corrective actions to mitigate or cleanse those discharges that pollute waters of the state.

Wetland(s) are defined as "areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, 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 may include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands", RCW 36.70A.030.

III. FUTURE NEEDS AND ALTERNATIVES

Analysis of Population and Demographics

The analysis of local population and demographic trends is important for a broad understanding of the County and to anticipate future needs. The analysis of population projections for the next 20 years is based on Office of Financial Management projections for the County. Population within the County has grown steadily over the last few decades.

Table 3: Population Data for Cities and County

	US Census				OFM Projections (High Series)			
Jurisdiction	1970	1980	1990	2000	2008	2010	2020	2030
Chelan County	**41,103**	**45,061**	**52,250**	**66,616**	**72,100**	**80,050**	**93,826**	**107,177**
Cashmere	1,976	2,240	2,544	2,965	See below			
Chelan	2,837	2,802	2,976	3,526				
Entiat	360	445	449	957				
Leavenworth	1,322	1,526	1,692	2,074				
Wenatchee	1,6912	17,257	21,829	27,856				

Within Chelan County the Census Bureau has delineated areas known as Census County Divisions (CCD). There are eight CCD's in Chelan County. The population of Chelan County grew by 7,189 persons (16% increase) during the decade from 1980 to 1990. The population increased from 45,061 to 52,250. From 1990 to 2000 the county population grew from 52,250 to 66,616, a 27.5% increase. During this same period, 55% of the growth went to the cities.

Age Groups
Total population, age 65 and over in 2000 dropped from 16% of the county population to 13.9%.

In 1990, the predominant age group county wide was the 30-39 cohort. This cohort averaged 17% of each respective CCD. In 2000 the 30-39(1990) cohort tracked into the 40-49 age group as still the predominant age group. The changes were: in the Cashmere CCD, the 40-49 age group was replaced by the 10-19 age group as the largest; In the Wenatchee CCD, the 0-9 age group became the largest; and county wide the 40-49 cohort was replaced by the 10-19 cohort. However, the majority of the CCDs still maintained the 40-49 age group as the largest.

During the School year period of 1980-81 to 1990-91, the Washington State Public School system within the Chelan – Manson Area experienced a 39% increase in full time equivalent (FTE) students from grades K-12. All school districts experienced significant growth between 1990 and 2000. The Chelan District experienced a 38.6% increase. From 1990 - 2000, the Lake Chelan School District experienced another 15.8% increase in enrollment. Entiat District experienced a 15% increase and another 29.6% increase between 1990 and 2000. The Manson District experienced a 61.5% increase and another 31.4% increase to 477 full time enrolled students.

The Wenatchee School District grew by 21.1% to 6768 students in 2000. The Cascade School District grew by 18.5% in 1990 and another 278 students (21.7%) between 1990 and 2000. During the same period, the Cashmere School District increased enrollment by 24.6% to 1386 students.

Minority Distribution
There are numerous challenges in collecting cultural data, including, cultural changes affect how individuals classify themselves or how they want to be seen by others. Additionally, changes in how demographic information is collected and tracked, through the US Census, have occurred making it difficult to compare census data. The following tables from 1990 and 2000 provide a glance at Census demographics. Numbers will not make population projections due to varying response rates.

1990 US Census Data

	Census CCD Areas								
P009: Hispanic Origin	Cashmere	Chelan	Entiat	Leavenworth Lake Wenatchee	Malaga	Manson	Stehekin	Wenatchee	**Totals**
Not of Hispanic origin	8018	4329	1344	4276	2347	1745	124	25281	**47464**
Hispanic origin:									**0**
Mexican	823	562	153	102	235	551	0	1894	**4320**
Puerto Rican	1	1	1	1	1	0	0	17	**22**
Cuban	0	0	0	0	0	0	0	12	**12**
Other Hispanic	50	57	9	9	25	13	0	269	**432**
P007: Detailed Race (part)									

P009: Hispanic Origin	Census CCD Areas								
	Cashmere	Chelan	Entiat	Leavenworth Lake Wenatchee	Malaga	Manson	Stehekin	Wenatchee	**Totals**
White	8517	4357	1378	4278	2433	1882	121	25367	**48333**
Black	6	4	4	7	1	2	0	56	**80**
American Indian, Eskimo, or Aleut	39	38	35	47	22	22	2	282	**487**
Asian	17	27	1	11	8	6	1	240	**311**
Pacific Islander	313	523	89	45	144	397	0	1528	**3039**
White	8517	4357	1378	4278	2433	1882	121	25367	**48333**

2000 US Census Data

	Census CCD Areas								
	Cashmere	Chelan	Entiat	Leavenworth Lake Wenatchee	Malaga	Manson	Stehekin	Wenatchee	**Totals**
Total Population:	10,824	6,222	2,138	5,902	3,506	3,248	98	34,678	**66,616**
Not Hispanic or Latino:	8,658	4,865	1,734	5,632	3,049	2,044	98	27,642	**53,722**
White alone	8,330	4,654	1,637	5,453	2,994	1,960	95	26,422	**51,545**
Black or African American alone	14	27	5	0	4	0	0	64	**114**
American Indian and Alaska Native alone	108	65	38	70	6	37	3	301	**628**
Asian alone	29	23	24	11	24	8	0	293	**412**
Native Hawaiian and Other Pacific Islander alone	17	0	0	0	0	0	0	12	**29**
Some other race alone	5	21	0	10	0	3	0	9	**48**
Two or more races	155	75	30	88	21	36	0	541	**946**
Hispanic or Latino:	2,166	1,357	404	270	457	1,204	0	7,036	**12,894**
White alone	946	464	103	148	152	410	0	2,029	**4,252**
Black or African American alone	0	0	3	0	0	3	0	73	**79**
American Indian and Alaska Native alone	43	10	2	17	0	4	0	51	**127**
Asian alone	0	0	0	0	0	0	0	5	**5**
Native Hawaiian and Other Pacific Islander alone	0	0	0	0	0	6	0	0	**6**
Some other race alone	1,156	878	263	105	280	744	0	4,457	**7,883**

	Census CCD Areas								
	Cashmere	Chelan	Entiat	Leavenworth Lake Wenatchee	Malaga	Manson	Stehekin	Wenatchee	**Totals**
Two or more races	21	5	33	0	25	37	0	421	**542**

US Census Bureau 2000: P7. HISPANIC OR LATINO BY RACE [17] - Universe: Total population

POPULATION PROJECTIONS

The Office of Financial Management released population projections in February of 2008. These projections provided three alternative growth scenarios for Chelan County and the incorporated cities to consider; a high, medium, and a low projection. The cities and the County chose to plan for the high projection, as they felt it best matched the high rates of growth being experienced within the County and would provide sufficient room for growth in the twenty year planning period without artificially inflating development costs. It is essential to consider these numbers in order to meet the requirements of the Growth Management Act (GMA) in addressing the minimum/maximum population.

There are eight county census divisions within Chelan County. Table 4 illustrates the population growth projected within each of the county census divisions, utilizing the high series population projection from the Office of Financial Management. The Chelan County 'High Series' population number for the year 2030 was distributed to each of the eight Census County Divisions (CCDs) in Chelan County. The distribution was based on a historical trend of each CCD's percentage of the total county population. In order to give more emphasis to more recent counts, a weighted average was used. This weighted average used the following factors: 1970 Census, 10%; 1980 Census, 20%; 1990 Census, 30%; 2000 Census, 40%. This method of regional population distribution was reviewed and agreed upon by the cities and the county.

With the adoption of urban growth areas and the designation of rural and resource lands, historic growth rates within the census county divisions are intended to shift with the majority of growth being accommodated by those areas which have adequate facilities and services to accommodate the projected growth. Table 4 notes the population projection allocations by area, to the year 2030.

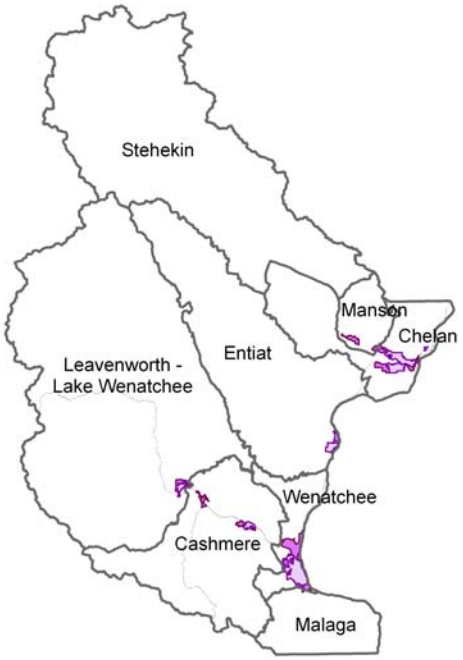


TABLE 4: CCD Populations

CCD Boundary	Population	
	1990[1]	2000[2]
Cashmere	8,892	10,824
Chelan	4,949	6,222
Entiat	1,507	2,130
Leavenworth – Lk Wenatchee	4,388	5,902
Malaga	2,608	3,506
Manson	2,309	3,248
Stehekin	124	106
Wenatchee	27,473	34,678
TOTAL Countywide	52,250	66,616

[1] US Census P003; [2] US CensusDP-1

The CCD's are used as the initial means of dividing County-wide population projects, as determined by the Office of Financial Management (OFM). Each CCD was assigned a percentage of the County growth then, using a ratio urban/rural split, each designated Urban Growth Area or LAMIRD was assigned a percent of the expected population. This division of growth was agreed to by the County and most cities in 2002.

Table 5 identifies the County growth from 2008 to 2030, as 35,077 people, and uses the CCD division of population growth and the urban/rural split to identify the growth throughout the County. While other CCD's only have one UGA or LAMIRD within its boundary, the Cashmere CCD divides its urban growth among three distinct areas: Cashmere, Peshastin and Monitor (see Table 6).

Table 5: Population Divisions Projected Growth

CCD	% of County Growth (2002 Agreement)	2008 - 2030 Population Growth OFM Projections (High)	Target Split Urban/ Rural %	Rural Split	Urban Split
Cashmere	16.780%	5,886	60/40	2,354	3,532
Chelan	9.404%	3,299	70/30	990	2,309
Entiat	3.060%	1,073	65/35	376	698
Leavenworth – Lake Wenatchee	8.299%	2,911	60/40	1,164	1,747
Malaga	4.674%	1,639	90/10*	574	1,066
Manson	4.495%	1,577	90/10**	158	1,419
Stehekin	0.214%	75	n/a	75	n/a
Wenatchee	53.074%	18,617	90/10	1,862	16,755
TOTAL	100.000%	35,077		7,552	27,525

* Consistent with Malaga Vision Plan projections; ** Consistent with Manson Subarea Plan 2009 (2002 agreement showed a 60/40 split)

Table 6: Current and Future Population Estimates

Urban Areas	Estimated Growth	2008 Estimated Population	2030 Estimated Population
Cashmere UGA	1476	2,990	4,466
Chelan UGA	2309	4,060	6,369
Entiat UGA	698	1,160	1,858
Leavenworth UGA	1747	2,295	4,042
Malaga LAMIRD	2620	2,030	4,650
Manson UGA	1419	1,685	3,104
Monitor LAMIRD*	1,573	190	1,763
Peshastin UGA	483	697	1,180
Stehekin	75	60	135
Wenatchee UGA	16,755	30,810	47,565

*2008 Population based on ACG Land Use (76 SF parcels *2.5 PPH); **Calculated annual growth rate based on Malaga Vision Plan 5.5% annually

The Stehekin Census County Division contacts no urban area therefore growth is only expected in the rural lands. The National Park Service estimated the 1995 year round population to be 70-90 persons and the seasonal population to be 175-190 persons during the peak season. In addition, the Park Service has estimated that the 2010 population for the community of Stehekin may reach 122 year round residents and up to 399 seasonal persons during the peak season. This rate of growth is higher than what the County projects and does not appear to be consistent with available land or permit applications.

IV. GOALS AND POLICIES

CITIZEN PARTICIPATION

Extensive citizen participation has and will continue to be a major goal in the formation, modification and implementation of the comprehensive plan and accompanying development regulations. Citizen Advisory Committee's were utilized in the formation and drafting of this plan. Decisions made by local governmental decision making bodies that utilize maximum citizen participation are usually better received by the public and generate better decisions.

The Comprehensive Plan can be amended once a year. However, there may be times when a proposed change or revision to any part of the comprehensive plan arises from a situation that necessitates the immediate preservation of the public health, safety and welfare or as ordered by a legal judgment. Such "emergency amendments" will follow State regulations but may not follow an established Comprehensive Plan amendment timeline.

The Growth Management Act states that public participation shall have a wide range of input. The process shall have a "…broad dissemination of proposals and alternatives, opportunity for written comments, public meetings after effective notice, provision for open discussion, communication programs, information services, and consideration of and response to public comments." Proposed actions should include early and continuous public input. Specific importance is attained to input from local individuals, businesses, and

groups; regional, state, and national organizations can add distinctive and valuable input to the planning process.

Types of Public Participation Techniques
Depending on the type of action, the region of interest and/or administrative considerations, a variety of public participation techniques may be necessary. The following are a sample of what should be considered to encourage public participation.

NOTICE
- Newspaper legal notices and special advertisement
- Postings at post office or other areas know to attract people
- Newsletters and/or utility flyers
- Website / electronic mailings
- Invitations to specific groups or interested parties
- Direct mailing
- In appropriate regional, neighborhood, ethnic, or trade journals
- Provide press releases or interviews with area radio stations and newspapers
- Posting of property for development proposals

MEETINGS
- Commission and Planning Meetings
- Public Hearings
- Open Houses or workshops
- Attending local service club, trade organization, etc., meetings

WRITTEN COMMENT
- Surveys
- Written Comments

ADDITIONAL FORMATS
- Youth workshops, public service messages, advisory committee, school programs, visioning, etc.

Comments and ideas are used throughout the process to help shape the Comprehensive Plan changes. As comments are received additional meetings may be necessary to fully secure adequate public participation on new or refined proposals. The importance of early and continuous involvement in the development of processes and products is vital to the success of the planning process.

GOAL LU 1: Encourage the involvement of citizens in the planning process.

> Goal Rationale: Citizen input is necessary in the planning process to ensure that community needs and concerns are addressed.

Policy LU 1.1: In addition to mandatory notification requirements, consider additional public participation measures where appropriate, including but not limited to the Public Participation Techniques listed above.

> Rationale: Additional notification measures may be necessary to ensure adequate public participation.

Policy LU 1.2: Support the continued utilization of community councils as an effective source for community concerns regarding planning issues and development proposals.

> Rationale: Community Councils provide valuable community input for land use decisions.

PLANNING TECHNIQUES TO PROMOTE PHYSICAL ACTIVITY

> "Wherever possible, the Land Use Element should consider utilizing urban planning approaches that promote physical activity." RCW 36.70A.070.

The Comprehensive Plan sets the framework for all regulations, therefore, bicyclists, pedestrians and other non-motorized forms of transportation should be considered in setting land use goals and policies (See also Transportation Element, Non Motorized Transportation).

Incorporating Goals and Policies that promote land uses that support physical activity goes beyond an individual's enjoyment and health benefits. Promoting pedestrian and bicycle facilities reduces vehicular use, resulting in saving resources and improving the environment by reduction in pollutants. There may be positive economic impacts seen in increased property values and marketability for property located near trails and open space. Beyond property values, businesses located in pedestrian friendly areas are benefited as visitors are encouraged to stop and shop. The County and Cities within the County benefit from the lower cost and maintenance of bicycle and pedestrian facilities compared to other facilities.

The following goals and policies are applicable to all (or most) land use applications.

GOAL LU 2: Encourage active communities through land use decisions and designs that support bikeways, pedestrian, equestrian and other non-motorized transportation modes.

> Goal Rationale: Land use regulations set the framework for how communities function. Supporting non-motorized transportation through land use not only increases the transportation functions but benefits an individual's health, the environment and can improve land values.

Policy LU 2.1: Encourage physical activity through land use policies, regulations, design and, when feasible, community awareness and education.

Policy LU 2.2: Support implementation of multi-modal transportation facilities, continued use of public lands, and land uses such as parks, trail systems, sidewalks, road ways and other transportation systems, when reviewing land use designations, development permits and land divisions.

PUBLIC UTILITIES

Public Utilities are a required sub-element of the Land Use Element. A Utilities Element is also required to be included in the comprehensive plan. The Utilities Element is intended to assure integration of the general location and capacity of existing and proposed utility

facilities with the goals and policies of the Land Use Element of the plan. Goals and policies guiding the distribution and general location and extent of public utilities can be found in the Utilities Element of this plan.

PUBLIC FACILITIES

Public Facilities is a required sub-element of the Land Use Element. A Capital Facilities Element is also required to be included in the comprehensive plan. The Land Use Element is to include the general distribution and location of public facilities and the guiding goals and policies. Goals and policies addressing public facilities can be found in the Capital Facilities Element.

GOAL LU 3: Protect water quality.

> Goal Rationale: The protection of water quality is important for the public health, the local economy, the environment, and helps to maintain the high quality of life.

Policy LU 3.1: Adopt and implement stormwater and drainage standards that protect water resources from impacts caused by development, utilizing, where appropriate: source control, on-site detention, and treatment of stormwater. Where storm drain systems do not exist, storm water shall be disposed of without increasing the rate of run-off.

> Rationale: Uncontrolled runoff can be detrimental to water quality and can add to the flood hazard potential during storms.

Policy LU 3.2: Storm water which is collected by a storm sewer system should not be directly discharged into water sources without appropriate treatment.

> Rationale: Storm water can carry many pollutants such as fecal coliform bacteria, gas, oil, pesticides and fertilizers.

Policy LU 3.3: Encourage and support future and ongoing water quality monitoring programs.

> Rationale: Monitoring of water quality helps to determine the impacts of growth and development to water quality. Should water quality problems arise, determining the sources of water quality degradation, and educational and regulatory tools to maintain or improve water quality would be necessary.

Policy LU 3.4: Support water quality education programs which inform local citizens and visitors about water quality issues and ramifications.

> Rationale: Education programs can be an effective approach to maintaining or enhancing water quality.

Policy LU 3.5: Encourage appropriate regulatory agencies to actively pursue violators which illegally discharge waste into rivers, lakes and streams.

> Rationale: Enforcement of water quality and waste disposal standards is a key element in maintaining contaminant free water resources.

Policy LU 3.6: Support ongoing health department efforts to adequately monitor on-site septic systems, and require the repair of failing on-site septic systems.

Rationale: Failing on-site systems have the potential to introduce fecal coliform and bacteria into water systems.

Policy LU 3.7: Encourage existing and require future public boat launches to incorporate wash-off stations. Vessel sewage pump-out facilities, and fueling provisions shall be sited to implement best management practices for the protection of water quality.

Rationale: Preventative management of water resources is essential to maintain our high quality water environments.

GOAL LU 4: Protect and maintain air quality.

Goal Rationale: The protection of air quality is important for the public health, the local economy, the environment, and helps to maintain the high quality of life enjoyed by County residents and visitors alike.

Policy LU 4.1: Encourage and support future and ongoing air quality monitoring programs.

Rationale: Monitoring of air quality helps to determine the impacts of growth and development to air quality. Should air quality problems arise, determining the sources of air quality degradation, and educational and regulatory tools to maintain or improve air quality would be necessary.

Policy LU 4.2: Recognize the potential benefits of public water, rail, electric, alternative fuels, non-motorized and air transportation in helping maintain local air quality.

Rationale: Moving people and goods by alternative means or in a more efficient manner should reduce emissions, and therefore; help maintain acceptable air quality.

Policy LU 4.3: Ensure that industrial development meets air quality standards and does not significantly affect adjacent property.

Rationale: Air pollution can cause health problems, obscure visibility, create unpleasant odors and damage animal and plant life.

Policy LU 4.4: Support wood stove standards adopted by the Department of Ecology.

Rationale: The 1987 Washington State Legislature directed the Department of Ecology to develop regulations in an effort to reduce the amount of air pollution from wood burning heat sources. The efforts of DOE are directed at educating the public on the effects of wood stove emissions, other heating alternatives and the desirability of achieving better emission performance and heating efficiency.

GOAL LU 5: Ensure that development minimizes impacts upon significant natural, historic, and cultural features and to preserve their integrity.

Goal Rationale: These features are an important part of the surroundings that contribute to the area's high quality of life.

Policy LU 5.1: Encourage development that is compatible with the natural environment and minimizes impacts to significant natural and scenic features.

> Rationale: The design of development proposals should consider the relationship with the natural environment from both aesthetic and environmental perspectives. Capitalizing on natural features can enhance the quality of new development while minimizing potential adverse impacts and exposure.

Policy LU 5.2: Local government should work closely with private organizations and those agencies that manage public lands to ensure that local interests are emphasized.

> Rationale: Because public lands comprise such a large percentage of the County, the importance of management that reflects local interest cannot be over-emphasized.

Policy LU 5.3: Chelan County recognizes the importance of natural area preserves and natural resource conservation areas. Chelan County will promote preserves and conservation areas and support the prohibition of inappropriate development within a preserve or a conservation area.

> Rationale: Natural resource conservation areas are important for preservation of natural features.

Policy LU 5.4: Establish a framework for the identification of archeological and significant historic sites and structures within the County.

> Rationale: Goal 13 of the Growth Management Act requires the identification of lands, sites, and structures that have historical or archaeological significance.

Policy LU 5.5: Encourage the preservation of lands, sites and structures, that have historical or archaeological significance.

> Rationale: Goal 13 of the Growth Management Act encourages the preservation of such areas.

GOAL LU 6: Identify and protect critical areas and provide for reasonable use of private property while mitigating adverse environmental impacts.

> Goal Rationale: Preservation of critical areas will help protect the environment and maintain and enhance the quality of life. Implementation regulations should provide for reasonable use of private property.

Policy LU 6.1: Protect the availability of potable water by minimizing the potential for contamination of ground water sources from residential, commercial and industrial activities.

> Rationale: The maintenance of a safe potable water supply is vital to the County.

Policy LU 6.2: The County shall encourage the restoration of contaminated ground water sources.

Rationale: The restoration of contaminated ground water helps to meet County needs for potable water and is beneficial to the environment.

Policy LU 6.3: Classify, designate and protect all critical areas, including frequently flooded areas, wetlands, fish and wildlife habitat conservation areas, aquifer recharge areas and geologically hazardous areas using best available science, pursuant to RCW 36.70A.172.

Rationale: Critical areas add to the quality of life within a community, as well as performing important natural functions that assist with protecting private property from damage from natural disasters and events. Identifying critical areas and protection measures for those areas are important steps in ensuring that those functions and values are preserved for future generations' enjoyment and protection.

Policy LU 6.4: Classify, designate and protect frequently flooded areas.

Rationale: Floodplains and other areas subject to flooding perform important hydrologic functions. Classifications of frequently flooded areas should include, at a minimum, the 100 year floodplain designations of the Federal Emergency Management Agency and the National Flood Insurance Program.

Policy LU 6.5: Regulate the development of floodplains in order to help mitigate the loss of floodplain storage capacity.

Rationale: The loss of floodwater storage results in a potentially greater level of destruction to downstream properties from the resultant higher flood elevations and water flow velocities.

Policy LU 6.6: Classify, designate and protect wetlands.

Rationale: Wetlands assist in the reduction of erosion, siltation, flooding, ground and surface water pollution, and provide wildlife, plant and fish habitat. Wetland destruction or impairment may result in increased public and private costs or property losses.

Policy LU 6.7: Classify, designate and protect geologically hazardous areas.

Rationale: Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological events. They pose a threat to the health and safety of citizens when incompatible commercial, residential or industrial development is sited in areas of significant hazard. Some geological hazards can be reduced or mitigated by engineering, design, or modified construction or mining practices so that risks to health and safety are acceptable. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas is best avoided.

Policy LU 6.8: Discourage development in areas of natural hazard such as those susceptible to landslide, flood, avalanche, unstable soils and excessive slopes

Rationale: Discouraging development in natural hazard areas helps to protect the public health, safety and general welfare.

Policy LU 6.9: Adopt an excavation and grading ordinance to regulate excavation, grading and earthwork construction activities.

> Rationale: Uncontrolled filling and grading can cause erosion and siltation of streams, rivers and ponds. These activities can also be detrimental to adjacent properties.

Policy LU 6.10: Support the efforts of public and private organizations, whose goal is the preservation or conservation of critical areas, to purchase these lands.

> Rationale: This option allows interested private and public organizations to purchase lands they wish to put into a long term conservation or preservation programs.

Policy LU 6.11: Critical area regulations shall not preclude reasonable use of property, or to effect a taking in violation of the U.S. Constitution, the State of Washington Constitution, and substantive due process.

> Rationale: Private property rights must be protected.

Policy LU 6.12: Allow for open space and recreational use of critical areas where such use does not negatively impact critical areas.

> Rationale: Open space and recreational use of critical areas provides an opportunity for residents and visitors to enjoy the natural amenities of the County.

Policy LU 6.13: Classify, designate, and protect fish and wildlife habitat conservation areas.

> Rationale: The preservation of fish and wildlife habitat helps to ensure the survival of fish and wildlife species within the County, and the retention of open space and recreation opportunities associated with fish and wildlife habitat.

Policy LU 6.14: The County shall evaluate the cumulative impacts of development proposals in critical areas.

> Rationale: It is important to take a comprehensive approach to development in a critical area since there is often a compounding effect resulting from changes to natural systems.

Policy LU 6.15: Encourage that dredging and filling activities are conducted in a manner which minimizes the introduction of suspended solids, leaching of contaminants or disturbance to habitats.

> Rationale: Uncontrolled dredging and filling activities can negatively impact fish habitat and water quality.

Policy LU 6.16: Critical areas shall be classified and designated based upon the criteria established in Chapter 365-190-040, and 80, Washington Administrative Code entitled "Minimum Guidelines to Classify Agriculture, Forest, Mineral Lands and Critical Areas".

> Rationale: Minimum standards have been established by the State for identifying resource lands and critical areas.

Policy LU 6.17: Encourage the restoration and enhancement of critical areas.

Rationale: The enhancement and restoration of critical areas improves the functions and values they provide.

Policy LU 6.18: Appropriate conditions shall be placed on development to ensure that negative impacts to critical areas are avoided or mitigated.

Rationale: Review of development proposals is essential to determine the potential for adverse impacts to the critical area or the development.

Policy LU 6.19: Protect critical areas by encouraging the use of innovative techniques on or adjacent to critical areas. Such techniques may include: purchase of development rights, transfer of development rights, clustering, conservation easements, land trusts, and the Public Benefit Rating System.

Rationale: Innovative techniques can benefit the public, land owner, and help to protect critical areas.

Policy LU 6.20: In designating and protecting critical areas, the County shall include best available science in developing policies and development regulations to protect the functions and values of critical areas. In addition, the County shall give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries.

Rationale: Inclusion and consideration of best available science ensures that the best available information and protection measures are utilized.

Policy LU 6.21: Interim critical area regulations and designations shall be reviewed when adopting a comprehensive plan under RCW 36.70A.040 and implementing development regulations under RCW 36.70A.120 and may be altered to ensure consistency. In addition, subsequent studies and information will be reviewed when drafting development regulations.

Rationale: Consistency between the comprehensive plan and development regulations is required. Additional studies may constitute best available science.

Policy LU 6.22: The goals and policies of the Chelan County Shoreline Master Program, as amended, are considered an element of the comprehensive plan, and are included by reference as if fully set forth herein.

Rationale: The goals and policies of the Shoreline Management Act, as set forth in RCW 90.58.020, are considered one of the goals of the Growth Management Act. The Growth Management Act requires that shoreline master programs be integrated as an element of the comprehensive plan.

Policy LU 6.23: Support ongoing watershed planning efforts.

Rationale: Watershed planning is essential to address a variety of issues including endangered and threatened species listings and water quantity issues.

Goal LU 7: UPPER WENATCHEE RIVER VALLEY: Encourage retention of the scenic character and environmental quality of the Icicle Valley.

Goal Rationale: The preservation of the scenic and environmental qualities of the Icicle Valley, ensures the retention of significant open space and recreational opportunities, and critical areas.

Policy LU 7.1: Continue to utilize the Icicle Valley Design Review Overlay District or design guidelines as a means to retain the scenic and environmental qualities of the Icicle Valley.

Rationale: The Icicle Valley Design Review Overlay District provides additional standards to ensure that development does not negatively impact the scenic and environmental qualities of the Icicle Valley.

Policy LU 7.2: Residential development should occur at a very low density, and in a scattered, diffused pattern in the Icicle Valley Design Review Overlay District.

Rationale: Dispersed very low density development will help to limit negative visual and environmental impacts.

Policy LU 7.3: Appropriate visual quality standards should be administered within the Icicle Valley Design Review Overlay District.

Rationale: These standards will allow for continued recreational use of the Icicle Valley and avoid or mitigate visual and environmental impacts.

Policy LU 7.4: Private property within the Icicle Valley Design Review Overlay District should continue to be designated as an environmentally sensitive area under the provisions of the State Environmental Policy Act.

Rationale: This designation helps assure that environmental aspects are properly considered.

RESOURCE LANDS

The Growth Management Act states that counties should "assure conservation of agricultural, forest, and mineral resource lands that have long-term significance for commercial production." The Act also requires local government to enact regulations that "assure that the use of lands adjacent to agricultural, forest, or mineral resource lands shall not interfere with the continued use of these designated lands for the production of food, agricultural products, or timber, or for the extraction of minerals"

The Act requires the adoption of interim development regulations for the conservation of these resource based land uses. Following an extensive citizen participation process, the County Commissioners adopted regulations for these areas. Many of the issues and concerns that guided the development of these regulations were discussed and addressed in the comprehensive planning process that led to the creation of this document.

MINERAL RESOURCE LANDS

Mineral resource lands are defined as "lands that are not already characterized by urban growth and that have long-term commercial significance for the extraction of minerals" (RCW 36.70A.170). Mineral resource lands of long-term commercial significance are to include, at a minimum, land with the potential for extracting sand, gravel, and valuable metallic substances on a long-term basis. Mineral resources mined in Chelan County provide valuable materials to the local economy.

Goal LU 8: Protect Chelan County's mineral resource lands of long-term commercial significance and allow for short-term mineral resource extraction opportunities in unincorporated areas, where appropriate.

> Goal Rationale: Conservation of these resources must be assured through measures designed to prevent incompatible development in or adjacent to designated mineral resource lands, and to mitigate impacts of mineral extraction activities on adjacent land uses.

Policy LU 8.1: Conservation of designated mineral resource lands shall be assured through measures designed to prevent incompatible development in or adjacent to mineral resource lands.

> Rationale: Mineral resource extraction such as sand and gravel pits are typically incompatible with residential and other types of land uses due to noise, dust and heavy equipment traffic. Therefore, it is important to develop appropriate land use regulations that protect mineral resource lands as well as adjacent land uses.

Policy LU 8.2: Require the reclamation of land after the completion of gravel and mineral extraction.

> Rationale: Effective reclamation of mining sites can insure future redevelopment of the site and prevent impacts from erosion and visual impacts.

Policy LU 8.3: Mining and extraction operations shall be sited and designed to avoid and mitigate conflicts with surrounding land uses. Screening, buffers, the provision of open space and other mitigation measures should be considered and required where necessary.

> Rationale: The careful design and siting of mining operations can prevent or minimize impacts to surrounding land uses

Policy LU 8.4: Require mining sites to be served by roadways, which are adequate to handle industrial traffic and do not endanger public health and safety.

> Rationale: Transportation system impacts and public health and safety issues must be addressed.

Policy LU 8.5: Development locating adjacent to designated mineral resource lands should be sited and designed to prevent conflicts with existing or future mineral resource extraction operations. Screening, buffers, the provision of open space, and other mitigation measures should be considered and required where necessary.

Rationale: The minimization of potential conflicts helps to maintain the viability of mineral resource extraction operations.

Policy LU 8.6: Protect water quality and prevent sedimentation through the use of settling ponds, retaining basins, ditches, diking and re-vegetation of slopes and other measures for mining and production operations.

Rationale: Water resources must be protected.

Policy LU 8.7: Surface mining should not lower the ground water table of surrounding properties in a manner that directly impacts their use.

Rationale: Lowering of the ground water table could have serious effects on domestic water supplies.

Policy LU 8.8: All plats, short plats, binding site plans, development permits and building permits issued for development activities on, or within five hundred feet of, lands designated as mineral resource lands, shall contain a notice that the subject property is within or near designated mineral resource lands on which a variety of commercial activities may occur that are not compatible with the
development. Applications may be made for mining related activities including mining, extraction, washing, crushing, stock piling, blasting, transporting, and recycling of minerals.

Rationale: Such notification will allow potential real estate purchasers to make educated decisions.

Policy LU 8.9: Clustering of residential development on adjacent non-resource lands is encouraged.

Rationale: Clustering will provide for open space adjacent to the resource use and will minimize conflicts.

Policy LU 8.10: Designated mineral resource lands not included in urban growth areas should be protected from infrastructure improvement assessments such as, but not limited to, local improvement districts and local utility districts with deferral programs or other measures.

Rationale: Additional taxes would pressure the property owner into converting resource land into other uses.

Policy LU 8.11: Recognize that mineral resource extraction operations provide necessary materials for the development of roads, structures and other projects, and is a significant natural resource industry. Where consistent with the comprehensive plan, support the maintenance and development of mineral resource extraction operations.

Rationale: Materials provided by mineral extraction operations are vital to the community, and are a significant economic activity.

Policy LU 8.12: Mineral resource lands of long-term commercial significance, as defined in WAC 365-190-030 should be identified and designated based upon the criteria

established in Chapter 365-190-040 and 365-190-070, Washington Administrative Code, RCW 36.70A.131and local considerations using the best resources available.

> Rationale: Mineral resource lands provide necessary materials that support development and construction projects. It is vital to provide for the protection and accessibility of these resources to support economic and human activity. State law requires the designation and conservation of mineral resource lands of long term commercial significance.

Policy LU 8.13: Mineral resource extraction operations with a time frame for extraction and rehabilitation of less than 3 years, shall be reviewed through a quasi-judicial process with appropriate conditions and mitigation measures.

> Rationale: Provisions should be made for short term mineral resource extraction operations.

Policy LU 8.14: Mineral resource extraction operations with a time frame for extraction and rehabilitation of 3 years or greater, shall be reviewed legislatively as mineral resource lands of long term commercial significance.

> Rationale: Provision should be made for long term commercially significant mineral resource extraction operations.

Policy LU 8.15: Mineral resource extraction operations existing at the time of adoption of the comprehensive plan, that are operating, legally established, within the provisions of the development permit, and meeting the criteria for mineral resource lands of long-term commercial significance, are to be designated on the land use maps as mineral resource lands of long-term commercial significance.

> Rationale: The Growth Management Act requires the designation of long-term commercially significant mineral resource lands.

AGRICULTURAL RESOURCE LANDS

Chelan County contains an abundance of agricultural lands that are important to the economy of the area. It must be recognized that in order to continue to exist, orchards must remain profitable. In an attempt to encourage existing and future agricultural development as a viable land use and a significant economic activity within the County, agricultural lands of long term commercial significance have been designated according to the U.S. Soil Conservation Service's classification for prime and unique farmland soils, and criteria outlined in WAC 365-190-050. These areas have been identified on the land use map. The Growth Management Act defines "long term commercial significance" to include the growing capacity, productivity, and soil composition of the land for long-term commercial production, in consideration with the land's proximity to population areas, and the possibility of more intense uses of the land.

Typically the most successful agricultural land conservation programs in the United States have been ones that combine incentive and regulatory techniques chosen according to the needs and conditions of a community. The opportunity for differential tax assessment for orchardists in Chelan County, helps to provide landowners an incentive to remain in an agricultural use. Buffers, parcel size, and a clustering option provide regulatory techniques to retain agricultural land. This combination of

conservation techniques provides property owners the flexibility for some non-farm development, helps reduce conflict between non-farm development and agricultural operations, and preserves farmable orchard parcels while the orchard industry remains viable in Chelan County.

While developing goals and policies and designating agricultural resource lands, many issues and concerns were identified during the public participation process and addressed during the development of the goals and policies for the agricultural section of the Land Use Element including:

- Agriculture vs. residential development
- Who is responsible for mitigation measures (developer of incompatible use)
- Where should development occur
- Recognize as a significant economic activity
- Agricultural uses vs. compatible and incompatible uses
- Availability of irrigation water
- Protecting farmers options
- Periodic re-examination of the Commercial Agriculture designations

Areas not designated as agricultural resource lands of long term commercial significance that do not meet the designation criteria can still play an important part in the local agricultural industry. Rural designations and buffers between orchards and non-farm development may be beneficial in retaining much of the rural area's current orchards. Future expansion of long term agriculture into rural undeveloped areas is a possibility, but will heavily depend upon the availability of water and water rights, and market conditions.

GOAL LU 9: Support the viability of agriculture and encourage the continued use of rural and resource lands for agriculturally related land uses.

Goal Rationale: The County benefits from a commercially significant and viable agricultural industry.

Policy LU 9.1: Encourage air quality standards and policies that are not detrimental to the agricultural industry.

Rationale: Burning is essential to orchard renewal.

Policy LU 9.2: The farmer shall have the right to farm, consistent with appropriate local, state and federal requirements.

Rationale: Agriculture plays a significant role in the welfare of the County and its residents, and should be supported.

Policy LU 9.3: Encourage the maintenance of agricultural lands in current use property tax classification consistent with RCW 84.34, the Open Space Taxation Act.

Rationale: Open space taxation allows property owners to be assessed at current use rather than highest and best use. This provides an incentive for the property owner to continue to use land for resource production.

Policy LU 9.4: Chelan County will conserve agricultural lands for productive economic use by identifying and designating agricultural resource lands where the principal and preferred land use is commercial agricultural resource management.

> Rationale: Activities in designated agricultural resource lands should be discouraged that would limit or eliminate the ability to continue agricultural operations.

Policy LU 9.5: Agricultural resource lands should be classified and designated based on the criteria and procedures established in WAC 365-190-040, and 050,, with special consideration given to the determination of whether agricultural lands considered for designation are viable as long term commercially significant agricultural land.

> Rationale: Agricultural Resource lands should be identified based on the best available information at the time of the designation.

Policy LU 9.6: Support efforts in the public and private sector to ensure the viability of the agricultural industry.

> Rationale: Strong agricultural markets and a supportive regulatory environment are two of the necessary components of a healthy agricultural industry. Attempts to secure these will be beneficial to the general welfare of the County.

Policy LU 9.7: Facilities and services for the maintenance, operation and support of natural resource industries within the County, should be permitted within rural and resource lands, where such facilities are not found to be incompatible with surrounding uses. Potential impacts to surrounding land uses and public facilities and services should be mitigated and addressed.

> Rationale: The agricultural industry in Chelan County is a significant economic activity. Necessary support services and facilities should be accommodated.

Policy LU 9.8: Encourage the construction of year-round and seasonal agricultural worker housing units that are dispersed and located in or adjacent to orchard areas. Where permitted by state agencies, consider the reduction of site development and fire protection standards for temporary housing units for migrant workers.

Rationale: This will assist the agricultural industry to remain economically viable, reduces transportation needs, and provides adequate housing for agricultural workers.

Policy LU 9.9: Regulatory opportunities should be developed to allow on-farm enterprises to supplement farm income, improve the efficiency of farming and provide employment for farm family members.

Rationale: Regulatory opportunities for limited enterprises such as direct marketing of unprocessed and value added agricultural products and agriculturally related small scale tourist operations can help supplement the agricultural industry and maintain the primary use of agriculture.

Goal LU 10: Conserve agricultural lands of long-term significance by controlling encroachment of incompatible uses.

Goal Rationale: Limiting the encroachment of incompatible uses will help to insure that agricultural lands remain viable.

Policy LU 10.1: All plats, short plats, binding site plans, development permits and building permits issued for development activities on or within five hundred feet of lands designated as agricultural resource lands, shall contain a notice that the subject property is within or near designated agricultural resource lands. The notice shall further state that a variety of commercial activities may occur on these designated lands that are not compatible with the development.

Rationale: Such notification will help property owners and purchasers to make educated decisions.

Policy LU 10.2: Clustering of residential development on adjacent non-resource lands is encouraged and should be sited to address incompatibility issues. The open space and cluster development should help buffer adjacent agricultural resource land from development.

Rationale: Clustering can provide for open space adjacent to the resource use and may help to minimize conflicts.

Policy LU 10.3: Non-farm development in rural areas, which is adjacent to an existing orchard operation, shall provide appropriate buffers and/or mitigation measures to minimize potential conflicts.

Rationale: Orchard operations in rural lands account for a significant amount of the agriculture within Chelan County. It is important to protect the farmer's ability to continue to farm by minimizing potential conflicts.

Policy LU 10.4: Non-farm development should provide buffers adjacent to agricultural operations within or adjacent to designated resource lands.

Rationale: Buffers can reduce the potential for conflicts between agricultural operations and other land uses.

Policy LU 10.5: Land use activities within or adjacent to designated agricultural resource lands should be sited and designed to avoid and mitigate potential conflicts with agricultural practices.

> Rationale: The avoidance and mitigation of potential land use conflicts will help to insure that agricultural operations can remain viable and sustainable.

Policy LU 10.6: Development within or adjacent to designated agricultural resource lands, including but not limited to plats, short plats, binding site plans, and planned developments, shall be required to provide for mitigation, such as fencing, planting of trees as buffers, landscaping, dust control, and appropriate spraying for pest control or the removal of fruit bearing trees to address impacts to agricultural operations.

> Rationale: The avoidance of conflicts will help maintain the ability of agricultural operations to continue.

Policy LU 10.7: Designated agricultural resource lands should be protected from inappropriate infrastructure improvement assessments. Deferral programs or other measures should be considered that would protect the farmer's ability to continue farming.

> Rationale: Additional taxes would impact the viability of agricultural operations. Infrastructure improvements or assessments inconsistent with the comprehensive plan should not be supported.

TIMBER RESOURCE LANDS

The growth management process requires identification of forest lands of long-term commercial significance as part of the growth management process. The identification of these lands is an attempt to conserve and encourage existing and future forest practice land uses as a viable, permanent land use and a significant economic activity within the County. Forest land also provides recreational opportunities, scenic value and wildlife habitat. In addition, the identification and land use regulations of the commercially significant forest lands will provide protection for forest lands from encroachment and incompatible land uses. The Growth Management Act defines "long term commercial significance" to include the growing capacity, productivity, and soil composition of the land for long-term commercial production, in consideration with the land's proximity to population areas, and the possibility of more intense uses of the land.

Goal LU 11.1: Conserve forest lands of long term commercial significance. Encourage sustainable timber production in rural and resource lands as a viable, permanent land use and a significant economic activity within the community.

> Goal Rationale: Timber production remains an important aspect of the County's economy.

Policy LU 11.1: Chelan County shall conserve forest lands for productive economic use by identifying and designating forest resource lands where the principle and preferred land use is commercial resource management.

> Rationale: Timber production remains an important aspect of the County's economy and the productive capacity of area forests cannot be ignored.

Activities in designated forest resource lands that would limit or eliminate the ability to continue commercial forest resource management should be discouraged.

Policy LU 11.2: Multiple economic use of forest resource lands may be allowed for land uses which do not eliminate or limit commercial forest resource management.

Rationale: Forest resource lands provide unique opportunities and locations for land uses such as natural resource extraction and open space and recreation development.

Policy LU 11.3: Designated forest resource lands should be protected from inappropriate infrastructure improvement assessments. Deferral programs or other measures should be considered that would protect the ability to continue long-term commercial forest resource management.

Rationale: Additional taxes would impact the viability of commercial forest resource management operations. Infrastructure improvements or assessments inconsistent with the comprehensive plan should not be supported.

Policy LU 11.4: Forest resource lands should be classified and designated based on the criteria and procedures established in WAC 365-190-040, and 060 with special consideration given to the determination of whether forest resource lands considered for designation are viable as long term commercial significant forest resource lands.

Rationale: Resource lands should be identified based on the best available information at the time of the designation.

Policy LU 11.5: The County supports and encourages the maintenance of forest lands in timber and current use property tax classification consistent with RCW 84.28, 84.33, and 84.34.

Rationale: Open space taxation assists the property owner in maintaining property in commercial forest production.

Policy LU 11.6: The County endorses the concept of cooperative resource management between both private and government agencies.

Rationale: This policy would provide for equal representation and efficient management regarding forest issues.

Policy LU 11.7: The County should encourage forest management activities that minimize the potential for catastrophic wildfires.

Rationale: The potential for catastrophic forest fires as in 1994 should be reduced.

Goal LU 12: Conserve timber resource lands of long term commercial significance by controlling encroachment and incompatible land uses.

Goal Rationale: Limiting the encroachment of incompatible land uses will help to ensure that timber resource lands of long-term commercial significance remain viable.

Policy LU 12.1: Land use activities within or adjacent to designated forest resource lands should be sited and designed to avoid and mitigate potential conflicts with commercial forest resource management.

Rationale: The avoidance and mitigation of potential land use conflicts will help to ensure that commercial forest resource management remains viable and sustainable.

Policy LU 12.2: Support those uses and buffer areas adjacent to and within designated forest resource lands that minimize conflict with commercial forest management.

Rationale: Minimizing conflicts will help to ensure long term commercial forest production.

Policy LU 12.3: All plats, short plats, binding site plans, development permits and building permits issued for development activities on or within five hundred feet of lands designated as forest resource lands, shall contain a notice that the subject property is within or near designated forest resource lands. The notice shall further state that a variety of commercial activities may occur on these designated lands that are not compatible with the development.

Rationale: Such notification will help property owners and purchasers to make educated decisions.

Policy LU 12.4: Encourage all commercial, industrial and residential development to be located within fire districts.

Rationale: The protection afforded by fire districts can minimize damage caused by fire.

Policy LU 12.5: Clustering of residential development on adjacent non-resource lands is encouraged and should be sited to address incompatibility issues. The open space and cluster development should help buffer adjacent forest resource land from development.

Rationale: Clustering can provide for open space adjacent to the resource use and may help to minimize conflicts

Goal LU 13: UPPER WENATCHEE RIVER VALLEY: Where appropriate, encourage sustainable timber production in the Icicle Valley.

Goal Rationale: Timber production remains an important aspect of Chelan County's economy, and the productive capacity of forest in the Icicle Valley cannot be ignored. Consideration of visual management to maintain the scenic quality of the Icicle Valley should be encouraged, while at the same time providing for the growing, management, and harvesting of timber resources.

Policy LU 13.1: Timber practices that maintain the scenic quality of the Icicle Valley shall be encouraged.

> Rationale: It is important to maintain the environmental and scenic qualities of the Icicle Valley.

Policy LU 13.2: If responsible silvacultural procedures and management objectives indicate the need for clear cutting, such cuts should be carefully designed in the form of small irregular patch cuts, taking advantage of natural variations in the vegetation and topography.

> Rationale: Such measures will help to mitigate the visual impact of clear cutting.

Policy LU 13.3: Logging road construction should be minimized as much as possible. The visual and environmental impacts of such roads should be carefully evaluated.

> Rationale: Minimizing the construction of logging roads will help to preserve the environmental quality of the area.

Policy LU 13.4: Water quality impacts to the Icicle Valley Watershed should be addressed.

> Rationale: The Icicle Valley Watershed is a significant resource for domestic and irrigation water and for fish and wildlife.

RESIDENTIAL DEVELOPMENT

This sub-element addresses land use policies relating to residential development in urban and rural areas. While recognizing that residential development is important and necessary to the sustainability of the County, the following goals and policies were developed to ensure that future development is compatible with surrounding land uses and can be efficiently and effectively served by public facilities and services. Further guidance can be found in the Rural Element and the Housing Element.

Goal LU 14: Residential designations shall provide for an adequate supply of land to accommodate the housing needs and strategies outlined by the comprehensive plan. Implementation regulations shall provide for a variety of residential opportunities to serve a full range of income levels.

> Goal Rationale: An adequate supply of housing available to all income levels is necessary to meet the housing needs of the County.

Policy LU 14.1: Provide the opportunity for a mix of housing unit, types and densities to meet the needs of existing and future residents of the County.

> Rationale: A sufficient supply of housing units in a wide range of prices, types, and densities is needed to accommodate present and future residents.

Policy LU 14.2: Support and encourage the retention, rehabilitation and weatherization of existing housing units.

Rationale: Retrofitting and weatherization promotes conservation, increases savings to the owner and maintains affordable housing for the area.

Policy LU 14.3: Recognize that manufactured and modular homes are a viable housing option.

Rationale: Manufactured and modular housing offers the potential of home ownership for moderate and low income families and individuals.

Policy LU 14.4: Design and site requirements for site built homes should be applied to the placement of manufactured and modular housing.

Rationale: The placement of manufactured and modular housing should take into consideration compatibility with the character of existing and future residential areas.

Policy LU 14.5: Recognize and protect residential neighborhoods from potential detrimental impacts from incompatible land uses.

Rationale: Incompatible land uses located in close proximity to residential neighborhoods may create adverse impacts which could lead to a reduction of the high quality of life for the County residents.

Policy LU 14.6: Where appropriate, consideration should be given to implementing innovative regulatory strategies which provide incentives for developers to provide affordable housing to low and moderate income households.

Rationale: This can be accomplished through the use of innovative techniques including but not limited to: density bonuses, performance zoning, zero lot line development, and cluster subdivisions. Incentives may help facilitate the construction of low and moderate income housing.

Policy LU 14.7: Except as provided for by the Rural Element, new residential development which requires urban services and facilities must be located within urban growth areas or LAMIRDs.

Rationale: Residential development at a size and density which requires urban services and utilities normally associated with urban areas should be located within the urban growth areas. Logical expansion of and infill of urban growth areas will assist in reducing the cost of providing necessary infrastructure.

Policy LU 14.8: Encourage the infill of vacant, partially used and underutilized land in existing residential developments located within urban growth areas and rural communities, such as LAMIRDs.

Rationale: Many parcels of land are available within existing residential developments that can accommodate further development. Infill within these areas will allow public facilities and services to be provided in a more efficient manner.

Policy LU 14.9: When establishing residential densities in the County, limitations imposed by the environment, availability of infrastructure and Consistency with the Comprehensive Plan and the Growth Management Act shall be considered.

> Rationale: Physical characteristics and the availability of utilities are important factors in determining residential development patterns and densities. In addition, residential densities must be consistent with the guidance of the comprehensive plan and the requirements of the Act.

Policy LU 14.10: Necessary public facilities and public services may be provided for the redevelopment, infill and development of existing intensely developed residential and mixed use areas, LAMIRDs or rural communities, outside of urban growth areas, consistent with the Growth Management Act. Such services shall not be provided in a manner which permits low density sprawl outside of the boundary of the residential or mixed use designation area.

> Rationale: The Growth Management Act permits the development, redevelopment and infill of existing intensely developed rural areas. The Act does not allow for the expansion of these areas outside of logically set boundaries.

Policy LU 14.11: Ensure that adequate off-street parking is provided for residential development.

> Rationale: Off street parking should be provided in safe and convenient locations. Off street parking for high density multifamily residential development should accommodate those with special needs.

URBAN GROWTH AREAS

A focal point of the GMA is the requirement of designating urban growth areas (UGA's). UGA's are to include areas and densities sufficient to permit the urban growth that is projected to occur in the County over a twenty year planning period. Urban growth areas are to be located first in areas already characterized by urban development where existing public facility and service capacity is available and second, in areas where public or private facilities or services are planned or could be provided in an efficient manner. Planning for growth in this way accomplishes two GMA goals: 1) the efficient provision and utilization of public facilities and services and 2) reduce inappropriate conversion of undeveloped land into sprawling, low density development.

The County contains two urban growth area not associated with an incorporated city, Manson and Peshastin. In areas were urban growth area boundaries are associated with an incorporated city, the County and cities have worked jointly in the adoption of the urban growth area boundaries as outlined in the County-Wide Planning Policies. The County and the cities have also participated in a Memorandum of Understanding that provides for the cities' development regulations and land use designations to be utilized in the unincorporated portions of the cities' urban growth areas.

The Chelan County Comprehensive Plan provides guiding goals, policies and land use designations for the rural areas. It also includes in the calculations of population and planning of facilities the urban growth areas for Peshastin and Manson. Peshastin and Manson's subarea plans are consistent with the County Comprehensive Plan and

designate local unique goals, policies and land use designation based on local circumstances. The unincorporated portions of the cities' of Leavenworth, Chelan, Cashmere, Entiat, and Wenatchee Urban Growth Areas are covered by these cities' comprehensive land use plans, as adopted by the County.

The UGA boundaries will be evaluated at least once every ten years, according to RCW 36.70A.130, and may be amended on an annual basis to ensure they are adequate to accommodate the 20 year population projections. The assessment of the UGA capacity is based upon developable lands, environmental constraints, housing and economic development needs, straightening of city boundaries, public facility and service capacities and the implementation of growth strategies.

The Growth Management Act defines urban growth, and urban governmental services as:

A. Urban growth refers to growth that makes intensive use of land for the location of buildings, structures, and impermeable surfaces to such a degree as to be incompatible with the primary use of land for the production of food, other agricultural products, or fiber, or the extraction of mineral resources, rural uses, rural development and natural resource lands designated pursuant to RCW 36.70A.170. A pattern of more intensive rural development, as provided in RCW 36.70A.70(5)(d), is not urban growth. When allowed to spread over wide areas, urban growth typically requires urban governmental services. "Characterized by urban growth" refers to land having urban growth located on it, or to land located in relationship to an area with urban growth on it as to be appropriate for urban growth.

B. Urban governmental services or urban services include those public services and public facilities at an intensity historically and typically provided in cities, specifically including storm and sanitary sewer systems, domestic water systems, street cleaning services, fire and police protection services, public transit services, and other public utilities associated with urban areas and normally not associated with rural areas.

GOAL LU 15: Encourage development to occur in urban growth areas where adequate public facilities and services exist or can be provided in an efficient manner.

> Goal Rationale: Promoting the efficient utilization of land by encouraging urban development within designated urban growth areas will improve the efficiency of infrastructure provision and usage and reduce low density sprawling development within the County.

Policy LU 15.1: Designated urban growth areas should include those areas already characterized by urban growth as well as those areas projected to accommodate future growth.

> Rationale: Including areas already characterized by urban growth and those areas projected for urban growth within the urban growth areas is a logical progression that will help to prevent leap frog development, reduce sprawl, and decrease infrastructure costs.

Policy LU 15.2: The size of designated urban growth areas should be based on projected population; existing land use; the adequacy of existing and future public facilities, transportation systems, and services; the impact of second home demand; and viable economic development strategies and sufficient fiscal capacity within the capital facilities plan to adequately fund the appropriate infrastructure necessitated by growth and development. Consideration should also be given to addressing grossly irregular corporate boundaries during the process of designating urban growth boundaries.

> Rationale: Following these criteria will insure that the urban growth areas will be of sufficient size to allow for future growth and be served with urban level services.

Policy LU 15.3: Implementation regulations should be designed to ensure that urban densities outlined in the comprehensive plan can be accommodated in urban growth areas.

> Rationale: Implementation regulations must be consistent with the comprehensive plan. Urban growth areas are the most appropriate location for accommodating urban growth.

Policy LU 15.4: The timing of utility extensions into the urban growth areas should be consistent with the adopted capital facilities plan of the utility purveyor.

> Rationale: Public financing for the extension of public facilities and services may not allow for the extension of facilities and services prior to established timelines in the purveyors capital facility plans. However, coordination between developers and public service purveyors may allow a repayment plan for improvements with provisions for utility assisted financing and latecomer fees.

Policy LU 15.5: Designate urban growth areas within the County in accordance with RCW 36.70A.110.

> Rationale: The Growth Management Act (RCW 36.70A) mandates counties required to plan under the Act to designate urban growth areas within which urban growth shall be encouraged and outside of which growth can occur only if it is not urban in nature, except as provided for by RCW 36.70A.070 (5)(d). RCW 36.70A.110 sets forth the requirements for designating urban growth areas.

Policy LU 15.6: Capital Facility Plans should provide for an urban-level of public facilities and services for buildout of lands within the Urban Growth Area.

> Rationale: Urban levels of public facilities and services are necessary to accommodate planned urban growth and development.

Policy LU 15.7: Urban growth boundaries should be re-evaluated co-incident with new population projections provided by the State.

> Rationale: Changing conditions that could affect growth rates in the future will necessitate a re-evaluation of established urban growth boundaries. Re-evaluations should be done on a more frequent basis than every ten years as required by the Growth Management Act.

Policy LU 15.8: For developments within urban growth areas the following policies should be applied:

A) If a public sewer system is not yet available, community sewage disposal systems are strongly encouraged. Encourage hook-up to the public sewer system when feasible.

B) Developments should connect to the designated public water system if available to the site. If not available, community water systems are the preferred alternative to single user wells to facilitate eventual hook-up to the designated public water system.

C) Curb, gutter and sidewalks should be required. Side walks should be provided on both sides of the road where necessary. Additional standards should be developed which address such improvements as street alignment and grade, road surfacing, public road access, right -of-way, and storm water improvements.

> Rationale: Development within the urban growth area should have improvements considered adequate to encourage urban infill and to facilitate the timely extension of urban services.

Policy LU 15.9: Maintain and enhance the visual approach into urban growth areas and rural community centers.

> Rationale: Development standards should be adopted to address appropriate signage, setbacks and landscaping to promote an orderly and aesthetic approach into a community.

Policy LU 15.10: When consistent with the protection of critical areas, the development, redevelopment and infill of shoreline areas within Urban Growth Areas shall be allowed.

> Rationale: The amount of waterfront property suited for residential and multi-use development is limited. The presence of urban-level services will support higher densities, and development at such densities is encouraged in order to make efficient use of the shoreline. This will help to provide the opportunity for higher residential densities, multiple uses of the shoreline, and innovative development techniques to meet the needs and desires of the public to enjoy and recreate in shoreline areas, where appropriate.

Policy LU 15.11: Recognize that the infill of vacant, partially used, and underutilized land is an important aspect of the efficient development of urban growth areas and should strongly be encouraged.

> Rationale: Many parcels of land are available within the residential, commercial, and industrial areas of the urban growth areas that can accommodate further development. Infill within the urban growth area will allow public facilities and services to be provided in a more efficient manner.

COMMERCIAL DEVELOPMENT

This sub-element addresses land use goals and policies relating to commercial development. The Citizen Advisory Committees also reviewed the following issues during discussions about future commercial development: parking, aesthetics,

compatibility with adjacent land uses and the efficient provision of public services and facilities. Further guidance for commercial development can be found in the Rural Element.

GOAL LU 16: Allow commercial development in designated commercial areas within urban growth areas; and in rural lands when consistent with the growth management act.

> Goal Rationale: Commercial activities should occur within urban growth areas which have the infrastructure and services necessary for such development. Under the provisions of the Growth Management Act, commercial development, redevelopment, and infill may also occur in existing rural commercial locations. The Act also provides for cottage industries and small scale tourist commercial activities in rural areas.

Policy LU 16.1: Necessary public facilities and public services may be provided for the redevelopment, infill and development of existing commercial or mixed use sites outside of urban growth areas, consistent with the Growth Management Act. The provision of such services shall not be provided in a manner which permits low density sprawl outside of the boundary of the commercial or mixed use designation area.

> Rationale: The Growth Management Act allows for limited commercial development outside of designated urban growth boundaries.

Policy LU 16.2: Encourage the strengthening of existing commercial centers rather than the aimless spread of new development.

> Rationale: Strip commercial development causes negative impacts to existing infrastructure and access problems for road systems.

Policy LU 16.3: Allow for home occupations to locate in residential land use designations, when said activity is incidental to the use of said residence as a dwelling and does not change the residential character thereof, and is conducted in such a manner as to not give any outward appearance of a business, and does not infringe upon the right of neighboring residents to enjoy a peaceful occupancy of their homes.

> Rationale: Home occupations generate substantial economic activity with minimal land use impact.

Policy LU 16.4: In rural areas, provide the opportunity for isolated cottage industries and isolated small scale business that are not principally designed to serve the existing and projected rural population and non-residential uses but do provide job opportunities for rural residents. Public services and public facilities shall be limited to those necessary to serve the isolated non-residential use and shall be provided in a manner that does not permit low density sprawl.

> Rationale: The Growth Management Act provides opportunities for cottage industries and small scale businesses in rural areas.

Policy LU 16.5: In rural areas, provide the opportunity for small scale recreation or tourist uses, including commercial facilities to serve them, that rely on a rural location

and setting but that do not include new residential development. A small scale recreational or tourist use is not required to be principally designed to serve the existing and projected population.

Rationale: The Growth Management Act provides opportunities for small scale recreation and tourist uses in rural areas.

GOAL LU 17: Support the enhancement and development of designated commercial areas and require the mitigation of impacts on other uses, access, public facilities, utilities, parking and aesthetics, where appropriate.

Goal Rationale: Commercial development must take into consideration potential impacts on adjacent land uses and the community.

Policy LU 17.1: When located adjacent to residential zones or in scenic corridors, commercial zoning districts shall restrict outside storage of vehicles or materials to approved screened or enclosed areas.

Rationale: A favorable image is essential for the success of the community, quality of life, and the tourism industry.

Policy LU 17.2: Develop implementation regulations that ensure that recreation or tourist uses and commercial facilities to serve them in rural areas are compatible with surrounding land uses.

Rationale: Potential impacts to surrounding land uses should be addressed.

Policy LU 17.3: Provide adequate, setbacks, landscape buffers, and /or screening for commercial development proposals which abut residential and other less intensive land uses.

Rationale: Appropriate setbacks and landscape buffers can help mitigate impacts to less intensive land uses.

Policy LU 17.4: Encourage the design of commercial developments which maintains and enhances the aesthetic quality of the County.

Rationale: Consideration of aesthetic impacts to the County and surrounding land uses will help to maintain and enhance the aesthetic qualities of the County.

Policy LU 17.5: Commercial development should be encouraged in areas where the activities proposed are compatible with adjacent land uses.

Policy LU 17.6: Future commercial development should provide a proportionate share of infrastructure improvement costs. However, local government may choose to provide incentives to attract desirable commercial development when the public benefits would surpass the improvement costs.

Rationale: Existing uses should not be responsible for the costs of system improvements associated with new development. However, development should not be required to contribute to improvements not reasonably related to the

development. Desirable commercial development can bring greater benefits to an area than it may cost to provide services.

Policy LU 17.7: Ensure that adequate off-street parking is provided in conjunction with expansion of or development of additional commercial activities.

Rationale: Sufficient off street parking should be provided in safe and convenient locations and should be compatible with adjacent land uses. Off street parking should accommodate those with special needs.

Policy LU 17.8: Commercial development should have adequate transportation facilities.

Rationale: Adequate transportation facilities are necessary to have viable commercial areas.

Policy LU 17.9: Promote and encourage improvements to the appearance of the commercial districts and residential areas throughout the County.

Rationale: Consideration of the compatibility of land uses, and providing for appropriate lighting, curbs and gutters, and sidewalks may encourage improvements to commercial buildings and adjoining residential districts in the County.

Goal LU 18: Adequate commercial areas should be designated to provide for the commercial needs of the County. Where appropriate, designations should allow for a range of commercial opportunities which support the diversification of the area economy.

Goal Rationale: The opportunity for a range of commercial activities, benefits area residents and supports the diversification of the County's economy.)

Policy LU 18.1: Promote commercial development that meets the needs of County residents and visitors.

Rationale: Commercial development which provides needed goods and services to residents and visitors, and helps to diversify the areas economy, should be supported when consistent with the comprehensive plan.

GOAL LU 19, STEHEKIN: Retain docking facilities at the Stehekin landing for both commercial and private use.

Rationale: The dock is the port area of Stehekin and should be used for the benefit of all.

Policy LU 19.1: Provide the opportunity for appropriate year around moorage at Stehekin landing for commercial and private use.

Rationale: People who work and recreate with watercraft in the Stehekin Area should have access to a portion of the Stehekin boat docks year around.

INDUSTRIAL DEVELOPMENT

Existing industrial activities contribute significantly to the economic and employment base of the County. Industrial uses on the whole in the County are primarily resource based; however, recent development in the Olds Station area and future development of the Peshastin Mill property are assisting in diversifying the economic base. Industrial development opportunities in rural areas are limited due to the lack of available public sewer systems. During the discussion of industrial development, several issues and concerns were identified. Some of these include:

- Size of projects
- Emissions from uses (fumes, noise, dust)
- Locating compatible or similar uses together
- Buffering of industrial development and less intensive land uses

Strategies to diversify and provide guidance for industrial development can be found in the Rural Element as well as this sub-element.

GOAL LU 20: Allow industrial development in designated industrial areas within urban growth areas; and in rural lands when consistent with the growth management act.

> Goal Rationale: Industrial activities should occur within urban growth areas which have the infrastructure and services necessary for such development. Under the provisions of the Growth Management Act, industrial development, redevelopment, and infill may also occur in existing rural industrial locations. The Act also provides for cottage industries in rural areas.

Policy LU 20.1: The siting of industrial uses may be allowed in rural areas when it can be demonstrated that adverse impacts to the rural community can be minimized and that the requirements under RCW 36.70A.365 or RCW 36.70A.070(5) can be met.

> Rationale: Some industrial uses, because of the nature of their operations, are more appropriately located in rural areas.

Policy LU 20.2: Promote the use of innovative development techniques such as industrial parks, where appropriate.

> Rationale: Industrial parks can be used to promote the human working environment through the provision of convenient and safe access, parking and landscaping. Site design of industrial parks can improve the aesthetic appearance of industrial developments.

Policy LU 20.3: Facilities and services necessary for the maintenance and operation of natural resource industries within the County, should be permitted within rural and resource lands, where such facilities are not found to be incompatible with surrounding land issues and impacts can be appropriately mitigated.

> Rationale: Natural resource industries in the County are significant economic activities. Necessary support services and facilities should be accommodated.

Policy LU 20.4: Encourage industrial development to locate in areas where necessary support facilities and services, transportation systems and compatibility with other land uses are clearly demonstrated.

> Rationale: Industrial development should not conflict with adjacent land uses, should be served by a convenient transportation system and have access to necessary public facilities and services.

Policy LU 20.5: Necessary public facilities and services may be provided for the redevelopment, infill and development of existing industrial or mixed use sites outside of urban growth areas, consistent with the Growth Management Act. The provision of such services shall not be provided in such a manner which permits low density sprawl outside of the boundary of the industrial or mixed use designation area.

> Rationale: The Growth Management Act provides for the redevelopment and infill of existing industrial areas.

Policy LU 20.6: Promote revitalization within existing developed industrial areas determined to be suitable for continuing use.

> Rationale: Physical improvements such as buildings, streets, utilities and other infrastructure exist in the developed industrial areas in the County, providing a significant base for further economic development. Continued use and on-going redevelopment in these areas will take advantage of existing investments and will reduce the competition with other uses for a limited land base. Public and private cooperation is necessary for effective revitalization efforts.

Policy LU 20.7: In rural areas, provide the opportunity for isolated cottage industries and isolated small scale business that are not principally designed to serve the existing and projected rural population and non-residential uses but do provide job opportunities for rural residents. Public services and public facilities shall be limited to those necessary to serve the isolated non-residential use and shall be provided in a manner that does not permit low density sprawl.

> Rationale: The Growth Management Act provides opportunities for isolated cottage industries and isolated small businesses in the rural areas of the County.

Goal LU 21: Maintain the existing industrial base in the County, and promote the further diversification of the area's economy with industries which are compatible with surrounding land uses.

> Goal Rationale: Existing industrial and resource based industries provide the foundation for the area's economy. Industrial development and redevelopment should take into consideration impacts to surrounding land uses.

Policy LU 21.1: Encourage public agencies working in conjunction with private industry to identify and develop industrial sites for targeted industrial development.

> Rationale: Public/private cooperation can more effectively help implement economic development and diversification of the County.

Policy LU 21.2: Industrial development should provide a proportionate share of infrastructure improvement costs. However, local government may choose to provide incentives to attract desirable industrial development when the public benefits would surpass the improvement costs.

Rationale: Desirable industrial development can bring greater benefits to an area than it may cost to provide services.

Policy LU 21.3: Provide adequate setbacks, landscape buffers and/or screening to aid in the transition between industrial development and other land uses.

Rationale: Appropriate setbacks, landscape buffers, and screening provided by vegetation, fencing and other methods can help mitigate impacts to less intensive land uses.

Policy LU 21.4: Potential impacts on nearby properties and public facilities and services should be addressed and mitigated when necessary when evaluating industrial development proposals.

Rationale: Industrial developments can be fairly intensive land uses. When reviewing industrial development proposals, impacts on nearby properties and public facilities and services must be addressed.

Policy LU 21.5: Encourage the development of light industries.

Rationale: Further development of light industries would help diversify the area's economy while minimizing negative environmental impacts.

Policy LU 21.6: Regulations should be developed to ensure that cottage industries in rural areas are compatible with surrounding land uses.

Rationale: Impacts to surrounding land uses should be addressed.

Policy LU 21.7: Ensure that adequate off street parking is provided in conjunction with the expansion, or development of additional industrial development.

Rationale: Sufficient off street parking should be provided in safe and convenient locations and should be compatible with adjacent land uses. Off street parking should accommodate those with special needs.

Policy LU 21.8: Limited industrial uses, and natural resource support and processing facilities and services that are not urban in nature nor require the extension of urban governmental services; with nuisance factors that make them inherently incompatible with location in urban growth areas, may be considered for location in remote rural locations. Location in rural areas must address potential impacts to surrounding land uses and critical areas.

Rationale: Some industrial and natural resource based uses, due to their nature, are not appropriate to be located in urban growth areas but can be located in remote locations within the limits set by rural governmental services, and the protection of the rural character and critical areas. Said uses can play an important role in support of other industries and businesses in the county.

OPEN SPACE/RECREATION

Open space is an important component of the natural environment and supports natural systems, aesthetic, recreational and economic resources in the rural landscape. Open space is generally minimally developed land that serves a functional role in the life of a region. Open space helps define the rural character of the County. Many areas of Chelan County rely heavily on the tourist industry, which is directly related to recreational opportunities and the natural beauty of the area. Both residents and tourists benefit from the recreational opportunities and the natural amenities of the County.

Open space lands in Chelan County consist of critical areas, parks and recreational land, wildlife corridors and conservation areas. Within the County a significant amount of land is owned and managed by Federal and State agencies. These areas are an important open space resource providing numerous benefits to the County and its residents. Additional areas may be identified by the County over time, based on public interest and on the need to ensure the integrity of the overall open space areas, as well as other factors. Identification, mapping and additional research will continue over time to support open space lands.

Open space lands may have some restrictions on their use or management. If the County acquires sufficient interest in a property, or control of resource development, based on public interest, additional restrictions may occur. The County may acquire, by donation or purchase, land ownership and/or easements within these open space corridors.

GOAL LU 22: Encourage the retention of open space.

> Goal Rationale: Open space is a valuable resource for the enjoyment of residents and visitors. The retention of open space helps to maintain the natural beauty and rural character of the County.

Policy LU 22.1: Implementation regulations should be considered which allow for innovative techniques for the provision and retention of open space. Participation in incentive based programs, such as the public benefit rating system, open space tax program, purchase of development rights or conservation easements by public or private entities, and land trusts should also be encouraged.

> Rationale: Innovative site and development designs and incentive programs help to encourage the retention and provision of open space.

Policy LU 22.2: Encourage multiple use of public lands which support open space and recreational use in the County.

> Rationale: Public lands can provide opportunities for open space preservation and recreation opportunities while providing for the management of valuable natural resources by public entities.

Policy LU 22.3: Public access should be encouraged where large blocks of public lands with significant recreation potential are rendered inaccessible because of intervening private holdings.

Rationale: Public agencies should coordinate with private landowners to provide access to these public lands.

Policy LU 22.4: Encourage the preservation of outstanding natural and scenic resources, environmentally sensitive areas, and significant historic and cultural resources.

Rationale: Protection of these resources will help to maintain the high quality of life enjoyed by residents and visitors of Chelan County.

GOAL LU 23: Encourage the development and maintenance of recreational facilities and opportunities to meet the needs of residents and visitors.

Goal Rationale: Recreational opportunities help to promote the area for tourism and provide for a high quality of life.

Policy LU 23.1: Encourage the following criteria to be addressed in the development of park plans by public entities:

A. Determine and demonstrate the need for new park facilities using the Interagency for Outdoor Recreation format;
B. Neighborhood parks should be sited for accessibility and the enhancement of neighborhood spirit;
C. Recognize the need for waterfront access and waterfront-dependent activities activity fields (soccer, etc.) special use facilities (sky park, skate park, etc.) community centers trails funding mechanisms construction, and maintenance and operation.

Rationale: This will help to ensure a comprehensive approach to parks planning.

Policy LU 23.2: Support the maintenance of winter and off-season recreation and cultural events, and encourage the development of additional recreational and cultural opportunities where consistent with the comprehensive plan.

Rationale: Natural amenities and cultural resources exist within the County to support these activities. Winter and off-season recreation and cultural activities add to the quality of life of area residents and help to strengthen and diversify the County's tourist industry. Such activities also make the County more attractive for the recruitment of new industry and business.

Policy LU 23.3: Encourage public access to shoreline areas in the development and maintenance of park and recreation opportunities, where consistent with the protection of critical areas.

Rationale: Access to shorelines is desirable to provide for the recreational needs of residents and visitors.

Policy LU 23.4: Chelan County should coordinate with public and private entities who provide and maintain open space and recreational opportunities in the County, to utilize the pattern of publicly owned land and floodplain areas, and existing park and recreation facilities to provide for the open space and recreation needs of current and future residents and visitors. Private and public park and recreation systems should be

encouraged to provide and maintain a variety of open space, park and recreation facilities, and services to benefit the broadest range of age, social and economic groups and those with special needs and abilities.

Rationale: The maintenance and development of open space and recreation systems, benefits residents and visitors to the County.

Policy LU 23.5: State and publicly owned tourist/recreation destinations should provide adequate sanitary facilities.

Rationale: Adequate sanitary facilities help to maintain the quality of recreation opportunities enjoyed by residents and tourists in the area.

Policy LU 23.6: Encourage the preparation of a comprehensive study of existing underutilized public right of ways and easements. Assess the potential for public benefit through the following steps:

- Identify all undeveloped or underutilized County and City or other public right of ways and easements and determine ownership status.
- Establish criteria to evaluate public benefit including at a minimum, lake access, park siting, trails, view corridors, resale or exchange, open space, critical areas, utility purposes, and property access streets.
- Assess each site's value using criteria established in step "b" to determine value for use or sale.
- Develop and encourage the implementation of a plan for use or sale of each site.

Rationale: Underutilized right of ways and easements offer an opportunity for significant public benefit as open space and recreation.

Policy LU 23.7: Encourage park and recreation facilities to be designed for multiple uses and seasons, where feasible.

Rationale: Multiple use facilities are more cost effective and provide greater park and recreation opportunities than those that are single purpose and limited in function.

Policy LU 23.8: Support the development of recreation districts in the County where local support can be demonstrated.

Rationale: This is an opportunity to meet open space and recreation needs within the County.

GOAL LU 24: Park and recreation planning and development should take into consideration impacts to surrounding land uses, critical areas, and significant natural, scenic, historic, or cultural features.

Goal Rationale: Park and recreation facilities can benefit from and provide protection for the County's abundant critical areas, natural, scenic historic, and cultural features which provide added amenities to park and recreation facilities. The protection of such features and the mitigation of the impacts to surrounding land uses will help to make such facilities more successful.

Policy LU 24.1: Compatibility with adjacent land uses and the adequacy of infrastructure shall be considered in the development or expansion of recreational facilities.

> Rationale: The development of recreational facilities and activities should consider compatibility with surrounding land uses, the mitigation of impacts, and the adequate provision of necessary infrastructure and services.

Policy LU 24.2: Encourage the preservation of areas that are environmentally sensitive or have historic, cultural or scenic value, in the development of park and recreation facilities and opportunities.

> Rationale: Preservation will help maintain the scenic beauty and character of the County.

Policy LU 24.3: Encourage the siting and design of parks and recreation facilities so that they take advantage of significant natural features, environmentally sensitive areas, and historic and cultural resources.

> Rationale: These features of an area give it an individual identity. When possible, parks and recreation facilities should enhance and identify these features.

Policy LU 24.4: Recreational opportunities and facilities should be encouraged to consider aesthetic quality as an important element in their design and development.

> Rationale: Aesthetic design adds to the scenic beauty of the County.

GOAL LU 25: Encourage coordination of federal, state, local and private recreation planning.

> Goal Rationale: Coordination and cooperation of public agencies and private individuals will lead to increased opportunities and eliminate duplication of effort.

Policy LU 25.1: Where consistent with the goals and policies of this plan, support the park and recreation plans from the Manson Parks and Recreation District, cities within Chelan County, Chelan County P.U.D., Washington State, U.S.F.S., National Park Service, the Lake Chelan Valley Public Trails Comprehensive Plan, and other community initiatives.

> Rationale: Park and recreation planning by these entities should be supported when consistent with the comprehensive plan.

Policy LU 25.2: Encourage the early and continued public input in the development of recreational plans.

> Rationale: This helps to inform the citizens and build consensus into the recommendations of park and recreation plans.

Policy LU 25.3: The County should coordinate with private and public park and recreation purveyors to determine the actual recreation demand and scope of needed facilities for the County.

> Rationale: Coordinated park and recreation planning efforts can provide a comprehensive approach to meeting park and recreation needs for area residents and visitors. Public and private entities can benefit from shared resources and information.

MASTER PLANNED RESORTS

The scenic and natural amenities located within Chelan County afford opportunities for varied recreational activities. It is the intent of this comprehensive plan to provide guidance for Master Planned Resorts (MPR) as authorized by the general principles contained in RCW 36.70A master planned resorts, as amended.

MPRs are developments with urban characteristics that may be located outside of urban growth areas. A MPR is a fully integrated, self-contained planned unit development, in a setting of significant natural amenities, with its primary focus on destination resort facilities, consisting of short term visitor accommodations associated with a range of developed on-site indoor and/or outdoor recreational facilities. Capital facilities, utilities, and services, including those related to sewer, water, stormwater, security, fire suppression, and emergency medical provided on-site shall be limited to meet the needs of the master planned resort. Implementation regulations will be established for the approval of MPRs that are consistent with the goals and policies contained in this plan and meeting the future development goals of the county.

GOAL LU 26: To provide opportunities for Master Planned Resorts (MPRs), consistent with the provisions of RCW 36.70A.360.

> Goal Rationale: State law contains criteria that are required to be utilized in the review and formation of development standards for MPRs.

Policy LU 26.1: Development regulations for MPRs shall be consistent with the other elements of this comprehensive plan, particularly the Natural Systems/Critical Areas and Resource Lands sub-elements.

> Rationale: RCW 36.70A.040 requires all land use regulations to be consistent with and implement the adopted comprehensive plan.

Policy LU 26.2: New urban and suburban land uses in the vicinity of a MPR are precluded, except in areas designated for urban growth pursuant to RCW 36.70A.110 or for limited areas at more intense rural development, consistent with RCW 36.70A.070 (5)(d).

> Rationale: MPRs are created to maintain rural character while allowing development to take advantage of natural amenities. Additional urban or suburban land uses around an MPR will diminish the rural character and should be directed to other areas designated for those types of uses, as required by law.

Policy LU 26.3: The primary focus of Master Planned Resorts must be as a destination resort facility consisting of short-term visitor accommodations associated with a range of developed on-site indoor or outdoor recreation facilities.

> Rationale: RCW 36.70A.360 requires MPRs to have a primary focus on destination resort facilities.

Policy LU 26.4: MPRs shall not occur in areas that are designated as agricultural or forest lands of long-term commercial significance under RCW 36.70A.170, unless a finding can be made that the land is better suited, and has more long-term importance, for the MPR than for the commercial harvesting of timber or agricultural production.

> Rationale Chelan County places a prime importance on maintaining the current inventory of commercial forest and commercial agricultural land which is a significant economic contributor to the county. development of mprs in rural areas would reduce the amount of productive land for agricultural or forest uses, as required by rcw 36.70a.360(4)(c).

GOAL LU 27: Development regulations governing the review of master planned resorts shall incorporate appropriate site design standards.

> Goal Rationale: Due to the size and scope of master planned resort developments, emphasis on environmental and design standards is necessary.

Policy LU 27.1: Encourage MPRs that do not conflict with existing adjacent land uses, and in those cases where conflicts may be created, ensure that appropriately planned buffers, open space and/or mitigation measures are provided.

> Rationale: The urban characteristics of an MPR may create conflicts with uses in rural areas. It is important to develop MPRs with appropriate mitigation to minimize those conflicts.

Policy LU 27.2: MPRs shall be separated physically and aesthetically from the nearest existing developed areas.

> Rationale: An MPR must be a fully contained development that does not attract additional development adjacent to it. Additionally, due to the fact that the MPR is dependent on the natural and recreational amenities of the area, it should be located in the area adjacent to those uses it relies upon.

Policy LU 27.3: Design and development of Master Planned Resorts must ensure consistency with development regulations for the protection of critical areas.

> Rationale: RCW 36.70A.360(4)(d) requires all MPRs to be consistent with development regulations for critical areas.

Policy LU 27.4: Development plans will be required 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 etc. The master plan resort shall take all of these features and other considerations, such as cultural heritage and impacts to

the rural character of the surrounding area or natural resource uses, into consideration to keep the facility compatible with the surrounding area.

> Rationale: MPRs are intended to take advantage of the natural amenities, cultural heritage and character of the area. In order to ensure that those amenities continue and are undiminished, the design of the MPR must be compatible with the surrounding area.

Policy LU 27.5: Encourage site planning that emphasizes cluster developments with low impact site design that reflect the natural land characteristics wherever practical, and define these clusters with surrounding open space areas.

> Rationale: The intent of the MPR is to provide for recreational activities which take advantage of and are dependent on natural amenities. An MPR is a intensely developed area with potentially significant adverse impacts. Low impact sight design and clustering are appropriate avenues to protect the natural amenities upon which the MPR depends.

Policy LU 27.6: 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. Commercial activities shall be limited in scale and use to serve and focus primarily on the MPRs resort market.

> Rationale: Providing on-site consumer goods and services will minimize off-site traffic and impacts to the surrounding area; however, these good and services should not be over-scaled which could attract additional traffic which would create additional impacts.

Policy LU 27.7: Other residential uses may be included within the boundaries of a MPR, if the residential uses are integrated into and support the on-site recreational nature of the resort.

> Rationale: The primary focus of the MPR is for destination resort facilities with short-term visitor accommodations associated with a range of developed on-site indoor or outdoor recreation facilities. Given this focus, single-family or multi-family residential development shall not be the primary component of MPRs.

Policy LU 27.8: Encourage MPRs that provide affordable on-site housing for the employees of the MPR and their families.

> Rationale: Since an MPR is located in a removed natural setting, support services such as housing for employees cannot typically be located in close proximity. Providing employee housing on-site will reduce off-site traffic and will increase the attraction for quality employees.

GOAL LU 28: Provide opportunities for Master Planned Resorts that will encourage and enhance a diversity of recreational and economic opportunities in Chelan County.

> Goal Rationale: Economic and recreational diversity may strengthen and enhance the quality of life in Chelan County.

Policy LU 28.1: Provide a process which will encourage MPRs to be high quality developments which will be beneficial to the overall economy of the area as well as being environmentally sound and appropriate for the site.

> Rationale: An MPR depends on the natural environment; therefore, MPRs must be carefully designed to prevent environmental problems, which would degrade those amenities.

GOAL LU 29: Infrastructure and facilities shall be provided concurrent with and focused on accommodating a master planned resort development.

> Goal Rationale: Infrastructure and facilities to serve MPRs shall be consistent with the provisions contained in the RCW's.

Policy LU 29.1: Necessary infrastructure for the resort development shall be provided by the proponent at the time of development, and shall be consistent with the size of the development. Actual improvements may be phased in concurrently with phased development, provided the overall size of the project is planned for.

> Rationale: The costs of extending infrastructure to a proposed MPR can be detrimental to the county capital facilities plan. The infrastructure for a MPR shall be self-contained to prevent the necessity for extension of the infrastructure. Due to the costs of infrastructure, these improvements can be phased in provided the phasing is consistent with development and the total project is taken into account.

Policy LU 29.2: MPRs must be self-contained and fully integrated planned unit developments, located in settings of significant natural amenities.

> Rationale: An MPR is an urban scale development located in a rural setting. To prevent adverse impacts to the county and its facilities, the MPR must be designed to be self-contained and fully integrated.

Policy LU 29.3: Capital facilities, utilities, and services; including those related to sewer, water, stormwater, security, fire suppression, and emergency medical provided on-site, shall be limited to meeting the needs of the MPR, and shall be fully considered and mitigated.

> Rationale: Urban and suburban land uses are to be restricted around a MPR to prevent those forms of development outside of the Urban Growth Areas. Limiting utilities and services to only that necessary to support the MPR will discourage urban and suburban development adjacent to the MPR.

Policy LU 29.4: Necessary capital facilities, utilities and services may be provided to a MPR by outside service providers; including municipalities and special service districts, provided that all costs associated with service extensions and capacity increases directly attributable to the MPR are fully born by the resort, and provided that such facilities and utilities serve only the MPR and/or urban growth areas.

Rationale: Due to the size and remote distance from existing services, significantly larger costs of extending services and capacity result from an MPR than from other forms of development. Limiting the use of those services outside of an UGA will limit unwanted development outside of those areas.

GOAL LU 30: Provide opportunities by which resorts in existence as of July 1, 1990, and developed, in whole or in part; as a significantly self-contained and integrated development that include short-term visitor accommodations associated with a range of indoor and outdoor recreational facilities within the property boundaries in a setting of significant natural amenities, may be included as a Master Planned Resort.

Goal Rationale: Permit the designation of existing resorts when consistent with the provisions of RCW 36.70A.362 and the goals and policies contained in the plan.

Policy LU 30.1: New urban and suburban land uses shall be precluded in the surrounding vicinity, except in areas otherwise designated for urban growth in conformance with RCW 36.70A.110 and 36.70A.360(1).

Rationale: MPRs are created to maintain rural character while allowing development to take advantage to natural amenities. Additional urban or suburban land uses around an MPR will diminish the rural character and should be directed to other areas designated for those types of uses, and as required by RCW 36.70A.362(2).

Policy LU 30.2: The resort shall be consistent with Chelan County development regulations established for critical areas.

Rationale: Chelan County critical area regulations apply to all forms of development within the county.

Policy LU 30.3: On-site and off-site infrastructure impacts of the resort must be fully considered and mitigated.

Rationale: The urban form of development created by an mpr may have significant impacts on the surrounding area. Impacts generated by an mpr must be carefully considered and those impacts mitigated.

Policy LU 30.4: An existing resort may be included as an MPR in the condition or level of development that is currently approved at the time of the change in designation to MPR status. An expansion of the resort shall require a permit process consistent with the provisions for a new MPR.

Rationale: The impacts of the existing resort on the surrounding area have been mitigated in a prior process. The expansion of a resort may create new impacts that must be identified and mitigated with the MPR process prior to approval.

Policy LU 30.5: An existing resort may include other permanent residential uses, conference facilities and commercial activities supporting the resort, but only if these

other uses are integrated into and are consistent with the on-site recreational nature of the resort.

Rationale: The primary focus of the MPR is for destination resort facilities with short-term visitor accommodations associated with a range of developed on-site indoor or outdoor recreation facilities. Given this focus, single-family or multi-family residential development shall not be the primary component of MPRs.

LAND USE DESIGNATION/SITING CRITERIA

I. URBAN GROWTH AREA DESIGNATIONS are determined by each community through their planning processes and adopted by the County as an Appendix to the Comprehensive Plan.

II. RESOURCE LAND DESIGNATIONS

The following designations apply to the implementation of the Comprehensive Plan through the zoning map. The following purpose and locational guidelines provide a basic understanding of the zoning districts intent and how they relate to the Comprehensive Plan designations.

A. COMMERCIAL AGRICULTURAL LANDS (AC):

Purpose: To assure the long-term conservation of commercial agricultural lands; to protect and preserve the farmers ability to farm; encourage existing and future agricultural land uses as a viable land use and a significant economic activity within the community; and, to protect agricultural land of long term commercial significance not already characterized by urban development from encroachment and incompatible uses.

Uses appropriate for these areas include: agriculture; open space; residential; and forestry. Additional uses may be considered with supplemental provisions. These provisions shall address performance standards, impacts to the surrounding area, and be consistent with the goals and policies of the comprehensive plan. Such uses may include: natural resource support facilities and services; mineral resource activities; intensification of existing small scale recreational or tourist uses that rely upon a rural setting but that do not include A new residential component; intensification of development on lots containing existing isolated nonresidential uses; home occupations; bed and breakfasts; and community facilities.

Density: One (1) dwelling unit per 10 acres. Clustering consistent with the underlying densities and the rural character and rural development provisions of the goals and policies of the comprehensive plan may be permitted. Topography, critical areas, other environmental constraints, and compliance with all other applicable development standards shall be considered in the provisions to allow for clustering.

<u>Locational Guidelines:</u>

1. Geographic and Geological Characteristics: The area contains farmland soils classified as prime or unique by the Natural Resource Conservation Service. Soil characteristics, moderate slopes or other physical constraints to development may be present. The area should not be adjacent to intensive urban or incompatible rural development. The predominant land use in the area is agriculture.

2. Natural Resources: The area should contain or have the potential to contain agricultural or agriculture support activities. The area should meet the criteria under WAC 365-190-050, as agricultural lands of long term commercial significance.

3. Public Services: Uses should not require extension or provision of urban level services. These areas may have access to rural governmental services and infrastructure or have the potential to be provided with rural governmental services within the 20 year planning period. Urban services should not be present.

4. Existing Land Uses: The prevailing land use pattern consists of agricultural operations and agricultural support facilities and services. Dispersed single family residences and low intensity rural uses may be present. The predominant parcel size is typically 5 acres or larger.

B. COMMERCIAL FOREST LANDS (FC):

Purpose: To assure the long-term conservation of commercial forest lands; to preserve and encourage existing and future forest land uses as a viable, permanent land use and a significant economic activity within the community; and to protect forest lands of long term commercial significance not already characterized by urban development from encroachment of incompatible uses.

Uses appropriate for these areas include: forestry, open space; residential; and agriculture. Additional uses may be considered with supplemental provisions. These provisions shall address performance standards, impacts to the surrounding area, and be consistent with the goals and policies of the comprehensive plan. Such uses may include: natural resource support facilities and services; mineral resource activities; intensification of existing development or the development of new small scale recreational or tourist uses that rely upon a rural setting but that do not include new residential development; intensification of development on lots containing existing isolated nonresidential uses; home occupations; bed and breakfasts; and community facilities.

Density: One (1) dwelling unit per 20 acres.

Locational Guidelines:

1. Geographic and Geological Characteristics: Soil characteristics, steep slopes or other physical constraints to development may be present. The area should not be adjacent to intensive urban or incompatible rural development. Large tracts of land oriented to forest resource management exist.

2. Natural Resources: The area should contain or have the potential to contain commercial forest resource management operations and commercial forest support facilities and services The area should meet the criteria under WAC 365-190-060, as forest resource lands of long term commercial significance.

3. Public Services: Uses should not require extension or provision of urban level services. These areas may have access to rural governmental services and infrastructure or have the potential to be provided with rural governmental services within the 20 year planning period. Urban services should not be present.

4. Existing Land Uses: The prevailing land use pattern consists of commercial forest resource management operations and commercial forest support facilities and services. Dispersed single family residences and low intensity rural uses may be present. The predominant parcel size is typically 20 acres or larger. Recreational and small scale tourist commercial opportunities may be present.

C. COMMERCIAL MINERAL LANDS (MC):

Purpose: To assure the long-term conservation of mineral resource lands; to recognize the local importance of protecting and preserving mineral lands as necessary to ensure the future supply of aggregate and mineral resource materials; and to conserve these resources with measures designed to prevent incompatible development in or adjacent to mineral resource lands, and to mitigate the impacts of mineral extraction activities on adjacent land uses.

Uses appropriate for these areas include: mineral resource activities, forestry, and agriculture. Additional uses may be considered with supplemental provisions. These provisions shall address performance standards, impacts to the surrounding area, and be consistent with the goals and policies of the comprehensive plan. Such uses may include: natural resource support facilities and services.

Locational Guidelines:

1. Geographic and Geological Characteristics: The area contains sand, gravel or valuable metallic or mineral substances, where the extraction of such materials can be expected. Soil characteristics, steep slopes or other physical constraints to development may be present. The area should not be adjacent to incompatible urban or rural development.

2. Natural Resources: The area should contain or have the potential to contain mineral resource extraction or mineral resource extraction support facilities and services. The area should meet the criteria under WAC 365-190-070, as mineral resource lands of long term commercial significance.

3. Public Services: Uses should not require extension or provision of urban level services. These areas may have access to rural governmental services and infrastructure or have the potential to be provided with rural governmental services within the 20 year planning period. Urban services should not be present.

4. Existing Land Uses: The prevailing land use pattern within and adjacent to the designated area should not contain incompatible land uses or land uses for which negative impacts cannot be mitigated or avoided.

III. RURAL DESIGNATIONS/SITING CRITERIA – Refer to Rural Element

Parks and Recreation Plan

Contents

SETTING **1**

Planning Area 1
History 2
Geography and Climate 2
Demographics and Economy 3
Parks and Recreation Trends 4

PLANNING PROCESS **6**

Guidelines and Requirements 6
Partners 7
Participation 7
August 1, 2007 Workshop *10*
August 27, 2007 Workshop *10*

VISION AND ISSUES **11**

DEMAND AND NEED ASSESSMENT **12**

Inventory of Countywide Parks and Recreation Opportunities 12
Assessment 20

GOALS AND POLICIES **20**

IMPLEMENTATION **23**

Parks and Recreation Projects 24
Prioritizing Criteria 29
Capital Improvement Program 30
Funding Sources 32

Setting

This 20 year Comprehensive Park and Recreation Plan is an element and chapter of Chelan County's Growth Management Act (GMA) Comprehensive Plan and is prepared in accordance with requirements specified in RCW 36.70A.070. The Growth Management Act requires review of Comprehensive Plans at least every seven years, while the Parks Plan must be updated at least every six years to be eligible for Washington State Recreation and Conservation Office (RCO) funding.

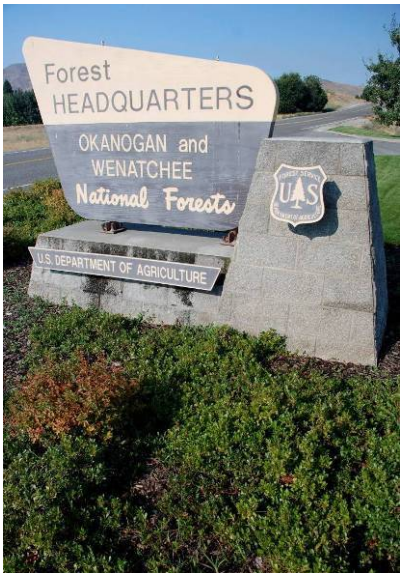


Figure 1 The US Forest Service is a major presence in Chelan County, where 87% of all land is owned by public agencies.

Planning Area

Glacier fed lakes and rivers, snow covered mountains, forest, desert scablands, waterways, dams, and windswept hills are Chelan County's backdrop. The region's many recreation opportunities draw residents and visitors from across the world. Touring, skiing, hiking, biking, camping, and boating are just a few of the many activities defining the county. The scenic Cascade Loop is the northern route through the Cascade Mountain Range and around Lake Chelan providing access to many recreation opportunities. That loop is part of the travel routes to and through the County including US Highway 2 connecting east-west and US Highway 97 connecting north-south.

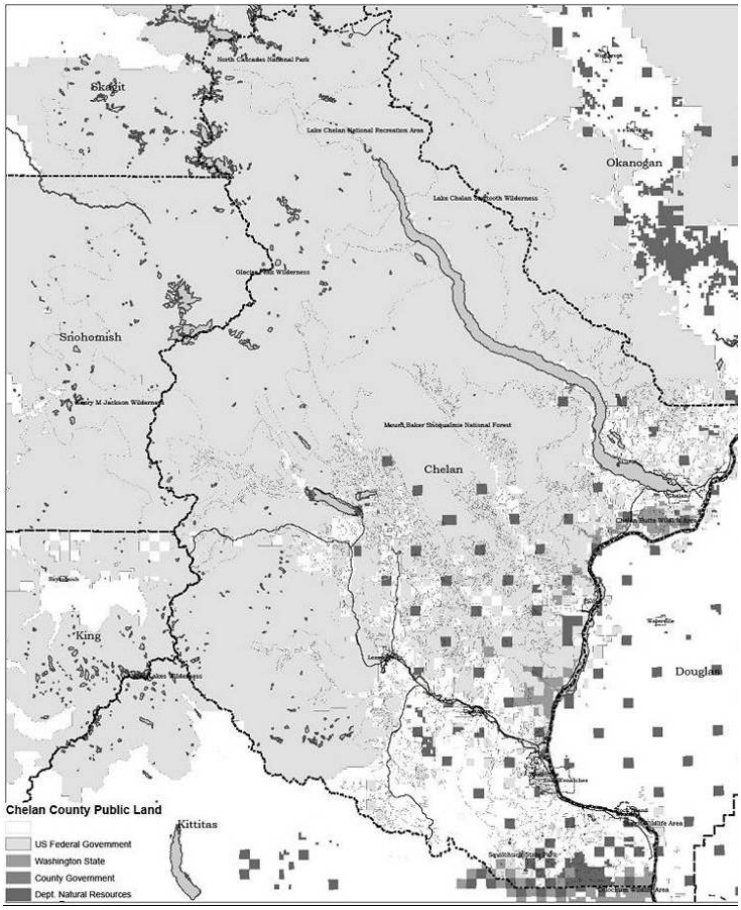


Figure 2 Chelan County has many federal, state, and local recreation opportunities.

Chelan County's diverse area includes the Wenatchee River, the Entiat River, the Chelan River, Lake Chelan (over 50-miles long and 1,541 feet deep), and is defined along part of its eastern boundary by the Columbia River. The County has an area of over 2,920 square miles, and is approximately 87 percent publicly owned. Much of that

public land is National Forest (80 percent).

History

The region was historically inhabited by the Chelan and Wenatchi Native American tribes, who were included in the Consolidated Tribes and Bands of the Yakima Nation when the Yakima Treaty was signed. A few small areas near Lake Chelan were allotted to the tribe. Most Wenatchis and Chelans settled on the Colville Reservation.

European settlers came to the Wenatchee Valley in the 1870s and 1880s. Development arrived with the Great Northern Railway that accessed the Wenatchee Valley with a tunnel through the Cascades near Stevens Pass. Wenatchee incorporated in 1892, soon after the first train passed through the area.

Chelan County was created in 1899 with Wenatchee as the county seat. Railroads played a major role in the growth of the area, bringing both supplies and settlers. This growth needed water, and irrigation canals became the center of agricultural success in Chelan County. The ability to form public utility districts in 1930 allowed residents to own power companies. In the same time period, the United States started building irrigation and flood control dams on the Columbia. In 1937 the Bonneville Power Administration was created to distribute electricity to publicly owned utilities. That same year the Chelan County PUD formed. Since then, the PUD has acquired and operates multiple dams in Chelan County.

Leavenworth, one community in Chelan County, was struggling economically in the 1960's and decided to pursue a Bavarian theme. Leavenworth continued to grow as a tourist destination, while Wenatchee and Lake Chelan continued to focus on apple orchards. Wenatchee became known as the "Apple Capital".

The existing diversity of fruit crops has been enhanced by blueberries and wine grape crops. The wine economy is bringing more tourists to Chelan County, adding to those who already visit the area because of its abundant public open spaces and dramatic geography.

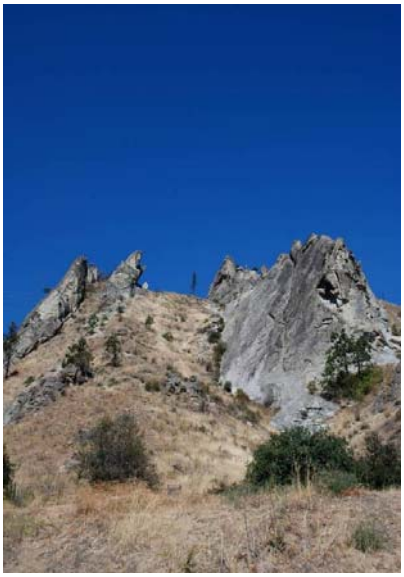


Figure 3 Peshastin Pinnacles was preserved as a climbing destination.

Geography and Climate

Different habitat areas in Chelan County include wetlands along the Columbia River and the Lake Chelan shorelines, the canyon/steppe habitat of the steep drainages, and the forests of the Cascades. Species that can be found in the area include mule deer, elk, black bears, coyotes and cougars, along with numerous small mammals and birds. Native trees include western red cedar; Douglas and grand firs; ponderosa and white pines; big leaf, Douglas and vine maples; dogwoods, alders and cottonwoods, with other vegetation below or beyond the tree level consisting of grasses, sagebrush and shrubs. The National Resource and Conservation Service (NRCS) classified

84% of the Lake Chelan Basin area as forested. The Chelan Butte Wildlife Refuge is a 12,000-acre game refuge that has many varieties of plants and animals.

Elevations range from just over 700 feet above sea level along the Columbia River to 9,249 feet at the summit of Mt. Fernow, Mount Stuart (9,415 feet), and 9,511 feet at the summit of Bonanza Peak, the highest point in the County. This diverse area has a varied climate with characteristics between those of the milder, moister Puget Sound, and the drier central Washington climate with greater temperature swings from hot summers to cold winters. Some areas particularly along Lake Chelan characterized as "marine west coast", with hot, dry summers and mild to severe winters. Temperature and precipitation vary widely depending on the elevation and proximity to the Cascade Crest. Lake Chelan moderates temperatures helping make the area such a successful growing region.

Volcanic pumice and ash have added substantially to the depth and character of the soil in many areas. Mountainous terrain, with steep slopes and high elevations, consist largely of rock outcroppings and shallow soils.

Lake Chelan is defined by the Sawtooth and Chelan Mountains and drains into Columbia River on the southeast. The Basin is dominated by Lake Chelan, a glacially formed lake approximately 55 miles long with an average width of 1.5 miles and a maximum depth of 1,500 feet. Three major tributaries; the Stehekin River, Railroad Creek and Twenty Five Mile Creek, along with numerous lesser streams feed the lake. The outfall is controlled through a hydroelectric dam and a penstock system to the Columbia River. Lake Wenatchee and Fish Lake and dozens of smaller alpine lakes in the Wenatchee National Forest are also found in the County. Rivers include the Entiat River, Wenatchee River, Chumstick Creek, Peshastin Creek, Icicle River, Chiwawa River, Mad River, Nason Creek, Little Wenatchee River, White River, Napeequa River, Phelps Creek, and Whitepine Creek. These bodies of water and their tributaries provide drinking water and are important for irrigation, recreation, and fish and wildlife habitat.

Demographics and Economy

Chelan County is growing. The County had about 40,000 people in 1960 and now (2006) there are about 70,000 people. This growth equates to increased demands for services countywide. Over the next 20 years, the County expects to grow by over 31,000 people to a population of 101,859 in 2025

	1960	**1970**	**1980**	**1990**	**2000**	**2004***	**2005***	**2006***
Population	40,744	41,103	45,061	52,250	66,616	68,400	69,200	70,100
Cities	22,856	23,249	24,270	29,490	37,378	38,560	39,215	39,955
Not Cities	17,888	17,854	20,791	22,760	29,238	29,840	29,985	30,145
All County Percent Change	-	.9	8.8	13.8	21.6	2.6	1.2	1.3
Cities Percent Change	-	1.7	4.2	17.7	21.1	3.1	1.7	1.9
Not Cities Percent Change	-	-0.2	14.1	8.7	22.2	2.0	0.5	0.5

*Sources: United States Census, *OFM, and the Port of Chelan*

According to the 2005 American Community Survey there were 26,000 households in Chelan County with an average household size of 2.6 people. Chelan County's median household income was $38,269. Seventy-eight percent of the households received earnings and 17 percent received retirement income other than Social Security (28 percent received an average of $12,589 from social security) with some households receiving income from more than one source.

There were approximately 32,000 housing units with 26,000 occupied (18 percent vacant) in 2005. Of the occupied housing units 16,000 (62 percent) were owner occupied and 10,000 (38 percent) were renter occupied. Twenty-four percent of the total housing units were built after 1990. The median monthly housing costs for mortgaged owners was $1,135, nonmortgaged owners $291, and renters $578.

Parks and Recreation Trends

Emerging trends within park and recreation planning relates to Chelan County and should be looked at to help identify future demand and needs. The following trends were highlighted by the Recreation and Conservation Office (RCO) and include both state and national surveys and research. Those trends relate to specific opportunities within the County. People are busy and have to weigh the time available for work, live, and play. Key trends to consider include:

Figure 4 Bicyclers and other recreationists come to Chelan County from Seattle.

- Increasing population: The County is growing rapidly with more growth in urban areas than rural areas
- Aging population: Older and retired populations continue to grow within the county with many expected to stay active likely demanding more recreation opportunities
- Ethnic diversity: The growing population in Chelan County is diverse with non-native speaking residents that should be considered in marketing and services
- Changing lifestyles: More generations and changing work patterns are creating off peak demand on facilities and less structure and more options for multi-generational activities
- Physical activity: An increased interest in physical activity has emerged as obesity rises in children and adults throughout the country
- Infill development: Areas that are urban are being filled in and higher density housing development is increasing demand for more urban facilities and connectivity to rural opportunities
- Convenient recreation: People are getting busier and costs for travel are increasing causing an increase and interest in recreating closer to home and work
- Women's participation: Since Title IX there has been greater equality in scholastics sports and interest has continued to increase

- Recreation preference: An increase in trail activity and winter recreation interests have increase including indoor winter activities and an interest in emerging activities like community gardens, mountain biking, and disk golf.

In 2002, the RCO completed an “Assessment of Outdoor Recreation in Washington State Washington” which shows that across the state, people were interested in nearby and affordable activities. Walking, hiking, and bicycling and other linear activities are very popular within Washington State with team and individual sports next in interest. Other activities rating above a 20 percent interest level included nature activities, sightseeing, bicycling, indoors, and picnicking.

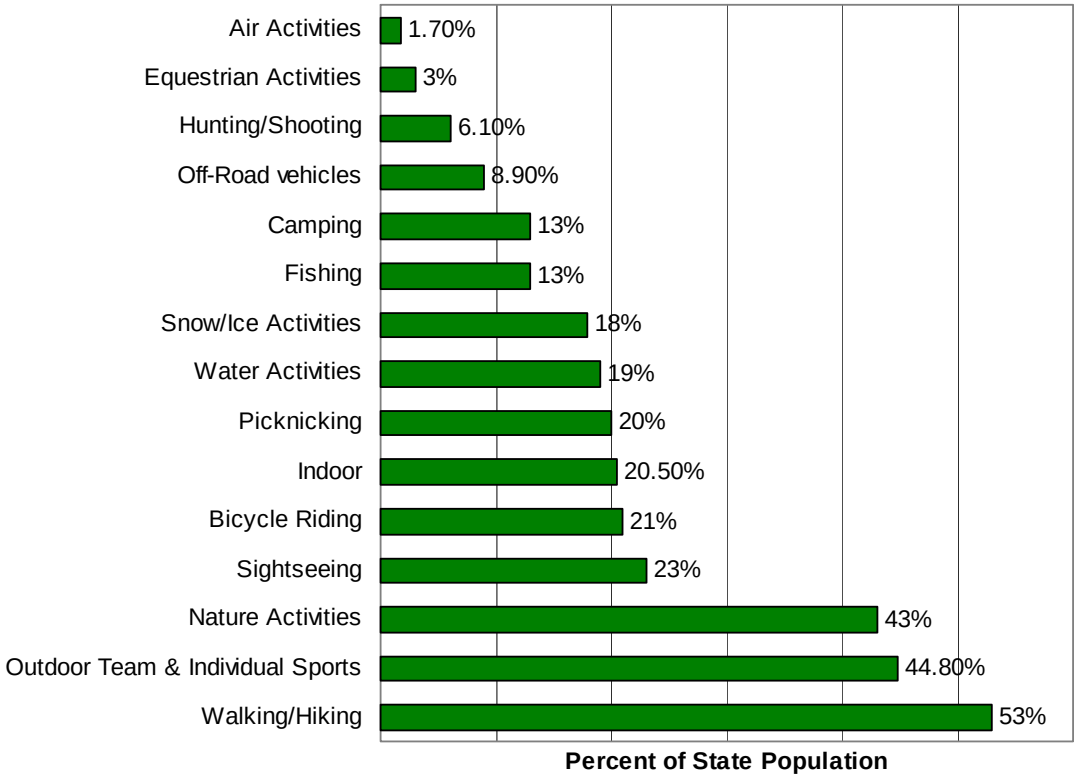


Figure 5 Statewide participation in recreation.

The RCO identified outdoor recreation activities and the projected change in participation levels in the next 10 and 20 years in 2003. The following table highlights those activities and the increase or decrease for each activity.

Future Participation in outdoor activity

Activity	10 Year	20 Year
Walking	+23%	+34%
Hiking	+10%	+20%
Outdoor team and individual sports	+6%	+12%
Nature activities	+23%	+37%
Sightseeing	+10%	+20%
Bicycle riding	+19%	+29%

Activity	10 Year	20 Year
Picnicking	+20%	+31%
Motor boating	+10%	No estimate
Non-pool swimming	+19%	+29%
Visiting a beach	+21%	+33%
Canoeing/kayaking	+21%	+30%
Downhill skiing	+21%	No estimate
Cross-country skiing	+23%	No estimate
Snowmobile riding	+42%	No estimate
Fishing	-5%	-10%
Camping – primitive dispersed	+5%	No estimate
Camping – backpacking	+5%	+8%
Camping – developed (RV style)	+10%	+20%
Off-road vehicle riding	+10%	+20%
Hunting-shooting	-15%	-21%
Equestrian	+5%	+8%
Air activities	No estimate	No estimate

Source: RCO 2003- Statewide data

At the statewide level walking and hiking are the highest interest area. Sport related activities come in at a close second. This future participation at the statewide level reflects trend but to look at the at the local level but a local questionnaire will

Chelan County is a destination for the many recreational opportunities provided in the National, State, and Chelan PUD lands. Most likely, the County will see a larger trend for activities like walking, hiking and other outdoor activities including hunting and fishing (which are declining statewide) than the average across the state or country. Chelan is also growing in population. This population will desire more nearby activities and opportunities to connect to the greater Chelan County recreation offerings.

Planning Process

Guidelines and Requirements

The RCO is a major source of park grant funding and provides specific planning guidelines for eligibility. RCO park planning requirements differ from the GMA but are compatible with it. This document complies with both.

The guidelines as specified by the RCO ask for the inclusion of several elements within a comprehensive parks and recreation plan.

- Community **goals** are broad statements of intent based on an overall vision.
- **Policies** implement goals, directing day-to-day agency behavior in a manner designed to achieve objectives.

Figure 6 The kick-off workshop let people share concerns about the future of parks and recreation.

- An **inventory** of the planning area and community reveals its identity and strengths within the context of the County's geography, along with the current parks and conditions including facilities, lands, programs, and the policy environment impacting parks and recreation activities.
- **Public involvement** provides opportunity for input in plan development and adoption.
- **Demand and need analysis** defines priorities for acquisition, development, preservation, enhancement, management and other park system management strategies based on public input and inventory.
- Projects for acquisition, development and renovation are the basis of the **Capital Improvement Program** including a projected timeline, budget and funding sources for each over at least a six-year period.
- The final step is **adoption**, which creates the final approval of the plan and process required to apply for grants.

This plan's structure reflects RCO's recommendations and is consistent with GMA's requirements.

Partners

The County is only one provider of parks and recreation services in Chelan County. The five incorporated jurisdictions, the Public Utility District, the Port, the US Forest Service, Washington State Parks and many others act in partnership to meet the public's park and recreation needs. Some partnerships have been formalized into permanent or ad hoc relationships to create regionally-oriented parks and recreation plans.

Figure 7 There are many public and private groups that could partner with the County.

Participation

The public had opportunities to participate in the planning process, both by attending meetings and by submitting written comment through the plan's preparation. Public notice was given for two workshops and two public hearings. A website was created for commenting and for posting workshop results and working documents. The August 1, 2007 meeting was announced on KPQ and KOZI radio, and the newspaper (Wenatchee World, Leavenworth Echo) wrote an article and advertised the four meetings. The following calendar of events highlights key meeting opportunities for public involvement:

Date	Topic	Venue
August 1, 2007	Charrette Vision, Issues, and SWOT	CTC- 6:00-9:00 PM

Date	Topic	Venue
August 27, 2007	Partnerships, Goals, and Priorities workshop with the Planning Commission and Board of County Commissioners	Board Chambers-7:00-9:00 PM
September 24, 2007	Draft parks plan public hearing with Planning Commission	Board Chambers-7:00-8:00 PM
October 30, 2007	Final parks plan public hearing with the Board of County Commissioners	Board Chambers

Recreation partners were invited to participate in the plan's preparation. Those participating are noted in the table below and represent diverse stakeholders across the spectrum of parks and recreation activities in Chelan County.

Participating Groups

Applesox Baseball	Greater Wenatchee Bicycle Advisory Board	Trust for Public Land
Cascadia Conservation District	City of Leavenworth	WA State Parks
City of Entiat	Manson Parks District	City of Wenatchee
Chelan County	Malaga Community Council	Wenatchee Row & Paddle Club
Chelan Co Fairgrounds	Port of Chelan Co	Wenatchee Sportsmen's Association
Chelan Public Utility District	Residents	Wenatchee Valley Convention & Visitors Bureau
Chelan Douglas Land Trust	Rocky Mountain Elk Foundation	Wenatchee Valley Sports Council
EcoPlan and Design		

Other parks and recreation providers were identified that should also be involved in future planning exercises and/or the implementation of this plan.

Future Stakeholders, Partners or Participants

US Forest Service	Audubon /bird viewers	City of Chelan
Department of Fish and Wildlife	ATV/ORV	Cashmere
Department of Natural Resources	Backcountry horsemen	Dryden
Health organizations	Equestrians	Monitor
Schools/School Districts	Rafters	Peshastin
Youth organizations (YMCA)	Snowmobile groups	Plain
Residents	Orchardists	Cascade Foothills
Seniors	Farm/Agriculture interests	Trout Unlimited
Hispanic community	Wineries	Lake Chelan Sportsman's Club
Lake Chelan Recreation Association (Public Trails Committee)	Leavenworth Winter Sports Club	
Appleatchee Riders Club	Wilderness Society	

Past planning activities that included public participation contributed to this plan as well. The **Chelan County Comprehensive Plan** (comprehensively updated in 2006) and information produced through that process is refined and supplemented in this plan and element. Participation in that process included a telephone survey of county residents, project newsletters, articles for the Chelan County Conservation District Newsletter, and the formation of multiple citizen advisory committees. Public meetings were held with the advisory committees to present goals and policies developed for the Land Use Element, some of which have been incorporated into this plan.

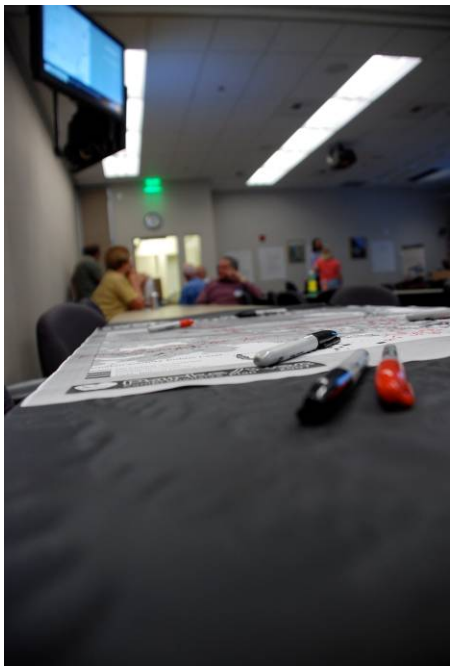


Figure 8 Workshops provided opportunities to draw and write about the parks system

The **Wenatchee Watershed Vision** is a document released in 2007 by the Trust for Public Land (TPL) providing strategies and tools that Chelan County can use to implement parks and recreation planning goals. The document is a resource that includes key issues facing the region, short term and longer-term actions, and a summary of a Conservation Finance Feasibility Study with recommended options for financing parks facilities. The document also includes a documented public process. That process included interviews with more than 19 organizations within Chelan County along with review sessions involving over 30 individuals representing diverse professions.

Some examples of other plans and processes that are considered in the Chelan County parks and recreation planning and implementation include:

- *Ecoregional Assessment for the East Cascades Region*-The Nature Conservancy identifies priorities for conservation of biodiversity
- *Wenatchee Watershed Management Plan*- Chelan County addressed water quantity and instream water flow, water quality, and habitat
- *North Cascade Initiative*- The Wilderness Society is creating a collaborative effort for preserving lands with one area focusing on enhancing recreation
- *Chelan County Lands Dialogue*- The partnership is focusing on three areas, with one looking to landscape level recreation functions within the context of habitat identification and protection
- *Sunnyslope Long-Range Plan*, 2007- The Chelan County and City of Wenatchee document guides decisions over the next 20-years with policy on recreation and connectivity in the Sunnyslope subarea
- *Municipal and District Parks and Recreation Planning*- Ongoing community input informs the local parks and recreation planning efforts and are incorporated in this plan by reference

August 1, 2007 Workshop

The Parks and Recreation kickoff workshop meeting at the Confluence Technology Center in Olds Station included about 20 participants representing a broad spectrum of recreation interests. Key stakeholders and users weighed in on Chelan County park and recreation amenities, the direction for planning, and needed improvements.

The workshop focused first on a vision, producing the vision statement appearing in the next chapter. This vision set the stage for discussion on what a future system might be, and some of the issues facing parks and recreation.

Issues raised in this workshop framed the core focus areas of the plan. One workshop exercise (a SWOT analysis) asked participants to describe current strengths and weaknesses of parks and recreation within Chelan County and future opportunities and threats that the system might face.

Figure 9 Although there is only one park owned by Chelan County, there are many recreation opportunities available provided by others, such as the US Forest Service.

August 27, 2007 Workshop

The second workshop focused on priorities, projects, roles, and responsibility. The draft vision and issues identified from the first workshop were used to evaluate current goals and policies. The idea was to determine if the current goals and policies adopted in the Comprehensive Plan were still on target. Participants noted that all of the comprehensive plan policies were appropriate to use in this document but that many of them needed some modification. (These updated goals and policies are included in the goals and objectives section of this plan.)

Participants later identified actions for inclusion in the parks and recreation plan. Some of these ideas were specific projects, while others were more policy oriented. The implementation section of this element outlines different projects that came from this meeting and prioritizes them based on key criteria.

Vision and Issues

Chelan County has developed a vision that speaks to the history and strong outdoor interests that residents and visitors expect from a place with such diverse terrain.

"Chelan County provides a mix of parks, recreation and open space that complements community character, creates diverse opportunities for residents and visitors, and preserves ecological functions."

Key parks issues derived from community participation include (in no particular order):

- There are not enough passive and active park opportunities for county residents.
- There is one county park, and land prices are increasing, making it difficult to acquire additional land.
- Many entities provide parks and recreation opportunities, but there is no overall guidance on what is needed.
- No mechanism exists within the county to ensure parks are developed or maintained to serve urban populations.
- Lower density residential development has less demand per acre than higher density residential areas.
- Lower density areas do not always have an opportunity for organized sports.
- Critical areas (RCW 36.70A.170) are not identified for parks planning.
- Steep terrain is prevalent in areas of the county, providing habitat but limiting development opportunities.
- The County has many recreation opportunities but there are not enough trails for good connectivity.
- There are no water connections for the RV Park at the fairgrounds.
- Funding is not currently available for maintenance or acquisition of County owned park land
- Ag-tourism has not been promoted enough.
- The region is growing quickly reducing or limiting access and connectivity to traditional routes and connections.
- There is not enough communication among agencies and stakeholders.
- The carrying capacity of certain areas may be exceeded.
- Pollution (air, water, noise, and light) is degrading recreation experiences and the land that supports it.
- There is nowhere to walk dogs off leash.
- Lower density development threatens open space and the ability to provide access to recreational areas.

Demand and Need Assessment

Inventory of Countywide Parks and Recreation Opportunities

The many recreation opportunities within Chelan County include boating and water sports, rafting, kayaking, fishing, mountain biking, backpacking, mountaineering, rock climbing, golf, hiking, hunting, camping, motorized trail sports, horseback riding, sightseeing, bird watching, snowboarding, cross-country skiing, downhill skiing, and fossil, rock and mushroom collecting. Many regional facilities are inventoried within the incorporated city comprehensive plans and are not listed in detail here.

Some parts of the County have few opportunities for traditional community sports activities such as baseball and soccer. Facilities for these types of activities tend to be located in more urbanized locations.

The County operates the Expo Center, manages the Ohme Garden State Park and owns the Wenatchee River County Park, located in the Monitor area. That park includes 17 developed acres adjacent to the Wenatchee River, and includes full service camp-sites for recreational vehicles and a State of Washington temporary farm worker camp and is managed through a contract.

Chelan County PUD has developed 14 parks to provide recreational opportunities along the Columbia River and Lake Chelan as required as part of dam licensing. Five of those parks are in Douglas County (Rock Island, Lincoln Park, Orondo, Daroga, Beebe Bridge).

Figure 10 Chelan PUD has park opportunities in Chelan and Douglas County. Source Chelan PUD

The Manson Park District manages five parks within the planning area: Manson Bay Park, Old Mill Park, Singleton Park, Willow Point Park, and Wapato Lake Campground.

There are many recreation opportunities on Federal lands dispersed throughout the County. The County includes all or portions of the North Cascades National Park, Lake Chelan National Recreation Area, and The Glacier Peak, Henry M Jackson and Alpine Lakes and Sawtooth Wilderness Areas. There are also a multiple recreational opportunities on National Forest Service property including hiking, mountain biking and motorized trails, drive-in and remote campgrounds, and day use and trailhead facilities. There are many developed Forest Service Campgrounds (approximately 70). There are also many opportunities on National Park Service lands including: Purple Point, Weaver Point, Harlequin, High Bridge, Tumwater, Dolly Varden, and Shady developed campgrounds.

Washington State has many recreation options including Fish and Wildlife land, Department of Natural Resource land, and seven park facilities including Chelan County operated Ohme Garden.

The private Appleatchee Riders club offers riding facilities and has also purchased a former mine property that would be part of a trail system. The Leavenworth Winter Sports Club provides many winter recreation opportunities including cross-country trails and managing a downhill ski area with a 90 meter ski jump.

Chelan County Parks			
Management	**Name**	**Acres**	**Amenities**
Chelan County	**Wenatchee River County Park**	17	Adjacent to the Wenatchee River with full service camp sites for RVs
Chelan County	**Chelan County Expo Center**	33	Wenatchee Valley Sports Plex (winter), 150 RV hook-ups with sewer, horse barn with 40 inside stalls and 40 outside stalls, grandstand with 1200 seating, arena, buildings (24,000 sq ft for Pavilion with full commercial kitchen, auditorium with 6500 sq ft) multiple smaller buildings
	Total Acres	**50**	

Chelan County PUD			
Management	**Name**	**Acres**	**Amenities**
Entiat Park and Recreation Department	**Entiat Park**	40	Camping (50 tent sites and 31 RV sites with complete hookups), boat launch, boat trailer parking, swimming, restrooms, showers, RV dump station, playground equipment, picnic shelter, picnic areas
WA State Parks and Recreation Commission	**Wenatchee Confluence St Park**	197	Camping (59 tent/RV sites: 51 with electricity, water and sewer, 8 standard), baseball/soccer field, 2-lane boat launch, boat trailer parking, swimming, restrooms, showers, picnic shelter, volleyball, tennis, playground equipment, Wenatchee River pedestrian bridge, **4.5 miles** of trail, wildlife area, interpretive graphics, RV dump station.
PUD	**Chelan Falls Park**	53	Two-lane boat launch, short-term boat

Chelan County PUD			
Management	**Name**	**Acres**	**Amenities**
			moorage, parking, day-use facilities, picnic shelters, restrooms, showers, shoreline trail, tennis court, playground equipment, sports fields, horseshoe pits, swimming area.
PUD	**Chelan Falls Powerhouse Park**		Day-use facilities, picnic shelter, restrooms, playground equipment, swimming area.
PUD	**Chelan Riverwalk Park**	12	**One-mile** scenic river loop trail, boat launch, short-term moorage, boat trailer parking, grass playfield, restrooms, picnic areas, picnic shelter.
Manson Park and Rec District	**Manson Bay Park**	6	Lake overview, swimming, picnic area, restrooms, 3 boat docks, 30-slip marina, winter-only boat launch, boat sanitary pump-out facility
Manson Park and Rec District	**Old Mill Park**	20	4-lane boat launch, short-term moorage, picnic area, restrooms, marine dump station, boat trailer parking.
PUD	**Rocky Reach Dam Park**	38	Extensive, award-winning landscaping, picnic areas, picnic shelter, playground equipment, horseshoe pits, Visitor Center, fish viewing room, historical galleries, restrooms.
PUD	**Walla Walla Point Park**	70	Fourplex soccer/softball complex, swimming, 1.2 miles of trail, tennis, volleyball, horseshoe pits, playground equipment, restrooms, picnic shelters, special event area, ADA fishing pier platform.
PUD	**Wenatchee Riverfront Park**	31	1.1 miles of shoreline trail, "special event" mini-railroad (click on the link at the right for schedule), ice rink, 2-lane boat launch, short-term moorage, boat trailer parking, restrooms.
	Total Acres	**467**	

Local Parks			
Management	**Name**	**Acres**	**Amenities**
Chelan	**Chelan Ballfield Complex**	12	Kent Hardball/Softball Field, Rainier Softball Field with 2 batting cages, horseshoe pits, food concession, restroom, and a playground.
Chelan	**Centennial Park**	0.5	
Chelan	**Don Morse Park**	40	18 hole natural green grass putting course, toy rentals, snack bar, volleyball courts, skate park, tennis and basketball courts, playground and picnic shelters with electric, water, and BBQ areas, Skate park
Chelan	**Lakeshore Marina/RV**	5	65 slip with or without power, pump out station, launch, 165 full hook up sites for RV's (water, electric, sewer & cable), including 22 sites with 16 x16 tent pads, picnic tables, dump station and ADA accessible restrooms and showers.
Chelan	**Lakeside Park**	10	17,500 sq. ft. of beach front swim area, seasonal boat launch, volleyball & basketball courts, play equipment, picnic tables and ADA accessible restrooms and 2 hour transient boat tie up.

Local Parks			
Management	**Name**	**Acres**	**Amenities**
Cashmere	**Ardeta Park**	0.06	Small park in the city center where the Christmas tree is located
Cashmere	**Cottage Avenue Park**	0.67	Climbing structure, swings, and picnic tables
Cashmere	**Natatorium Park**	N/A	Outdoor heated swimming pool
Cashmere	**Railroad park**	0.02	Picnic tables, trees, grass
Cashmere	**Riverside Park**	13.8	Playground, volleyball court, picnic area, take-out ramp for rafters and kayakers, and an open playing field. Changing rooms and rest rooms are provided at the south side of Riverside Center, and portable toilets are located at the east end of the park and a paved trail for walking, biking and skating runs the full length of the park and along the dike from Aplets Way to N. Douglas Street
Cashmere	**River Street Park**	0.49	Small neighborhood park where the old City Hall was located
Cashmere	**Simpson Park**	4.27	Small playground, and picnic tables
Dryden	**Dryden School Memorial Park**	N/A	
Entiat	**Columbia Breaks Fire Interpretive Center**	17.5	Amphitheater, Forest Service lookouts, and ½ mile trail
Entiat	**Kiwanis Park**	4.5	Kiwanis 2 baseball/softball fields
Entiat	**Rainbow Gardens**	0.5	Beautification area
Leavenworth	**Enchantment Park**	6	Two softball fields, a junior baseball field (one field doubles as a youth soccer field) and playground. Restrooms and changing rooms are adjacent to the fields, along with parking that accommodates a large number of vehicles and up to 3 busses, including ADA parking
Leavenworth	**Front Street Park**	2+	Lawns, shade trees, and alpine gardens downtown
Leavenworth	**Fish Hatchery**	N/A	
Leavenworth	**Lions Club Park**	N/A	Picnic tables, picnic shelter, adjoining City Hall and City pool
Leavenworth	**Skate Park**	N/A	
Leavenworth	**Ski Hill**	N/A	
Leavenworth	**Waterfront Park**	17	Natural area connected to the Wenatchee River with passive recreation areas, trails, picnic areas and children's play areas
Manson Park and Rec District	**Singleton Park**	10	Softball and baseball fields, restrooms, gazebo, soccer field, basketball courts and universally accessible paths and parking, and playground improvements are planned for the near future
Manson Park and Rec District	**Wapato Lake**	6	The site has a forty-site campground for tent camping and small RVs, 2 boat docks, a gazebo, restroom facilities and a boat ramp that has previously been maintained by the State Department of Wildlife.
Manson Park and Rec District	**Willow Point Park**	1.85	Designated swim area, playground, 3 barbecues and 5 picnic tables
Peshastin	**Kiwanis Park**	N/A	
Wenatchee	**Centennial Park**	0.4	Picnic area, bandshell, restrooms
Wenatchee	**Chase Park**	0.5	Picnic area & playground
Wenatchee	**Lincoln Park**	18.8	Ball fields, bandshell, restrooms, picnic shelter, & Rotary playground
Wenatchee	**Locomotive Park**	12	Gateway into the City of Wenatchee

Local Parks			
Management	**Name**	**Acres**	**Amenities**
Wenatchee	**Memorial Park**	2.9	Passive open space, fountain, historical display, rose garden
Wenatchee	**Methow Park**	1.2	Wading pool, play equipment, basketball court
Private (Wenatchee)	**Morris Park**	N/A	Located on Cherry Street in Wenatchee, Morris Little League Park features four fully-functional baseball diamonds complete with scoreboards, outfield fences, dugouts, grandstands and a concession stand.
Wenatchee	**Pennsylvania Park**	1	Play equipment, wading pool, ball field
Wenatchee	**Pioneer**	7.7	City pool, restrooms, picnic area, play equipment and skateboard park
Wenatchee	**Rainbow**	2	Gateway into the City of Wenatchee
Wenatchee	**Rotary Park**	8	Picnic area, restrooms, basketball, disk golf
Wenatchee	**Washington Park**	4.1	Picnic shelter, restrooms, wading pool, play equipment & horseshoes
Wenatchee	**Wenatchi Park**	8.1	Soccer, baseball & softball fields, open space
Wenatchee	**Wenatchee Ice Arena**	1	Replaced in 2008 with Semi-public events center
Wenatchee School District	**Lewis and Clark Park**	11	
Wenatchee School District	**Recreation Park**	9.11	
Wenatchee	**Triangle Park**	0.18	
Wenatchee School District	**Western Hills**	4	Soccer and softball fields, play equipment
	Total Acres	**244**	

State of Washington			
Management	**Name**	**Acres**	**Amenities**
Washington State Parks & Recreation Commission	**25-mile Creek**	235	An inland waters camping park on the forested south shore of Lake Chelan. The park separates the mountains from the lake and is surrounded by spectacular scenery. With its modern marina, the park affords visitors excellent boating access to the upper reaches of Lake Chelan.
WA Fish and Wildlife	**Chelan Butte Wildlife Area**	8,200	Mostly dry grassland with some shrubs and riparian zones where most of the wildlife is. There is small game habitat favorable for upland birds including chukar, quail, grouse, and mourning doves
WA Fish and Wildlife	**Swakane and Entiat Wildlife Areas**	19,200	Mostly valley bottom near the Columbia River with numerous steep drainages that have perennial and intermittent streams. Major habitat types include sage steppe, ponderosa pine and several riparian draws.
Washington State Parks & Recreation Commission	**Lake Chelan State Park**	127	Lake Chelan State Park is a camping park on the forested south shore of Lake Chelan. The park has 6,000 feet of shoreline, lakeside views and expansive lawns for strolling and playing.
Washington State Parks & Recreation Commission	**Lake Wenatchee State Park**	489	A camping park with 12,623 feet of waterfront on glacier-fed Lake Wenatchee and the Wenatchee River. The park is bisected by the Wenatchee River, creating two distinct areas – South Park, with areas for camping, swimming and horseback

State of Washington			
Management	**Name**	**Acres**	**Amenities**
			riding; and North Park, in a less developed, forested section, a quarter-mile walk from the lake. The park is a natural wildlife area, and visitors should be aware of the presence of bears and other natural dangers.
Chelan County	**Ohme Garden State Park**	9	Fee-garden
Washington State Parks & Recreation Commission	**Peshastin Pinnacles State Park**	34	A popular place for rock climbers, one and a half miles of trails and sandstone slabs and spires. Spires are as high as 200 feet.
Washington State Parks & Recreation Commission	**Squilchuck State Park**	288	A camping park covered with forests of fir and ponderosa pine. The park sits at an elevation of 4,000 feet.
	Total Acres	**28,582**	

Federal Land			
Management	**Name**	**Acres**	**Amenities**
National Park Service	**Lake Chelan National Recreation Area**		The North Cascades National Park encompasses the Cascades National Park, Ross Lake and Lake Chelan National Recreation Area. The Lake Chelan National Recreation Area is the only part of the North Cascades National Park inside of Chelan County. The Lake Chelan National Recreation Area is inside the Wenatchee National Forest. Almost 400 miles of trails and vast undeveloped wilderness allow visitors to experience nature with minimal human-caused intrusions. Possible experiences range from accessible trails to world class mountaineering, including scenic drives, hiking, camping, nature-watching, relaxation, boating and fishing.
Forest Service	**Mt. Baker Snoqualmie National Forest**		Includes Alpines Lakes Wilderness Area.
	Wenatchee-Okanogan Nation Forest		3000 miles of recreation trails of varying length and difficulty on the forest. There are low-elevation trails in the sage-covered fringes of the forest, trails in the timbered zones, and high country trails traversing alpine terrain. Almost half of these trails are within classified Wilderness. Several “barrier-free” trails have also been developed adjacent to recreation sites to provide access to those with physical challenges.
	Total Acres	**1,480,681**	*Excludes land covered by water from 1999 IAC Lands Inventory*

The School Districts in Chelan County provide many sport fields and indoor venues but public access is limited by school activities. Facilities often are not available to the general public when needed.

School District	Number of Schools	Students
Cashmere School District 222	3 Schools	1,507
Lake Chelan School District 129	5 Schools	1,336

School District	Number of Schools	Students
Entiat School District 127	2 Schools	377
Cascade School District 228	6 Schools	1,452
Manson School District 19	2 Schools	685
Cascade School District 228	1 School	195
Stehekin School District	1 School	6
Wenatchee School District 246	16 Schools	7,400
Private Schools	8 Schools	866

The county has many park and trail types. The following table outlines the many types of parkland that can be found within the county and gives a general description for each type. The table also shows typical sizes for each type of park.

Park & Trail Types	Description	Typical Size
Parks		
Mini	For limited or isolated needs usually less than ¼ mile of users	2500 sq. ft to 1 acre
Neighborhood	Social and recreational active and passive recreation at neighborhood level ¼ to ½ mile from users without physical barriers for access	5 to 10 acres
School	Used to fulfill school and park needs and can be any type of park but located next to schools	Depends on use
Community	Broader community needs and preserves unique landscapes and open spaces that serves a ½ to 3 mile area	30-50 acres
Large Urban	Larger space that meets recreational need of the entire urban area with similar purposes of community parks	50 acres but 75 or more acres optimal
Natural Resource	For preservation of resources, landscapes, open space, and buffering located where resource is identified	Resource based
Greenways	For making continuous park systems based on resource identification	Resource based
Sports complex	For programmed athletic fields and facilities usually centrally and strategically located with public transportation	Community-wide strategic locations
Special use	For single purpose needs and located based on the use	Variable for use
Private Facility	Private facilities that contribute to the public system and located by use	Specific use
Trails		
Park	Single or Multiple purpose trails within parks	
Connector	Single or Multiple purpose trails that create connections to the parks system and around the region for transportation options	
On-Street Bikeway	On street routes designated or separated from vehicles	
All-Terrain Bike	Off-road routes for mountain bikes that should be looped	
Cross-Country Ski	Usually loop trail system in large parks or resource areas	
Equestrian	Horseback riding trails that are usually loops	

Source: RCO and the National Park and Recreation Association- Parks, Recreation, Open Space, and Greenway Guidelines

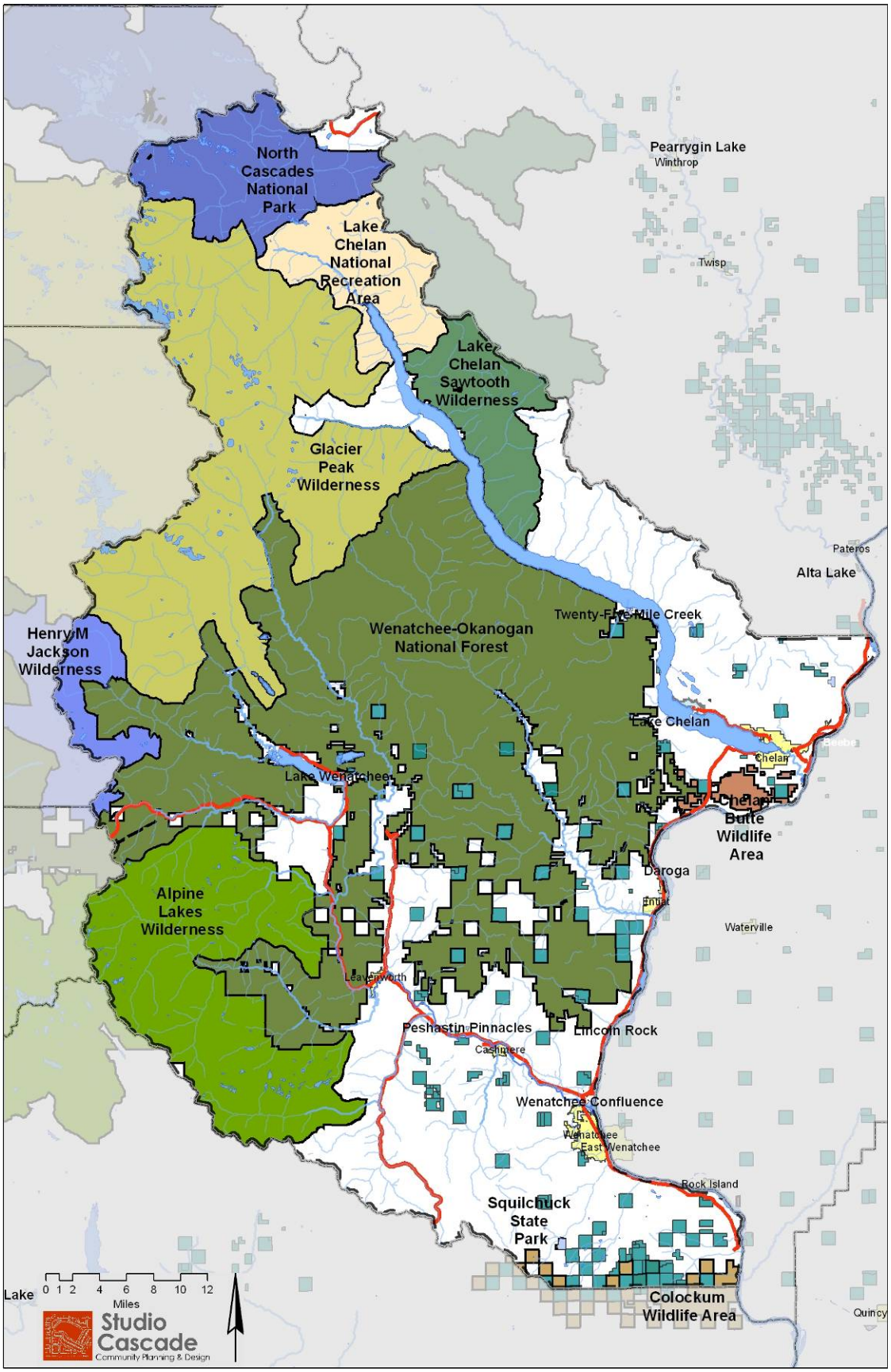


Figure 11 Public lands and recreation opportunities are available throughout the County

Assessment

In order to have level of service standards, it is necessary to measure the amount and quality of parks and recreation within Chelan County. These standards should measure the community's basic recreation needs and expectations. Chelan County does not have adopted standards for parks and recreation at the County level, but there are multiple planning entities that have different facility needs and have adopted levels of service. Cities and service providers have defined what urban levels of service should be within municipal boundaries and adjoining urban growth areas. This has especially been the case for the Wenatchee planning area.

Figure 12 Workshop participants listing potential parks and recreation projects.

There are many opportunities for recreation within the county, but there are no measurement for the quality or location of those parks and recreation opportunities. Based on public participation for this plan and other planning events throughout the region, there are indications that the County should focus it parks and recreation on creating connectivity to existing opportunities, developing partnerships, and coordinating the process at the regional scale for the many planning activities that are cross-jurisdictional. Access and connections to the many federally owned lands are a vital aspect of the overall park and recreation system.

Goals and Policies

Goals and policies are amended from the comprehensive plan to reflect the public's suggestions during the second workshop and to ensure that parks and recreation policies represent the most current thoughts regarding facilities and services.

Figure 13 Goals and policies establish the community direction to measure demands and needs.

Many areas of Chelan County rely heavily on the tourist industry, which is directly reliant on recreational opportunities and the natural beauty of the area. Both residents and tourists benefit from the recreational opportunities and the natural amenities of the County.

Chelan County's Vision:

"Chelan County provides a mix of parks, recreation and open space that complements community character, creates diverse opportunities for residents and visitors, and preserves ecological functions."

Open space is an important component of the natural environment and supports natural systems, aesthetic, recreational and economic resources in the rural landscape. Open space lands in Chelan County is minimally developed

land including critical areas, parks and recreational land, wildlife corridors, historic sites, resource lands and conservation areas. Specific sites could be identified as an important part of the parks, recreation and open space system based on public interest or on the need to ensure the integrity of overall open space corridors. Identification, mapping and additional research will continue over time to identify and support parks, recreation and open space corridors.

PR 1 – ENCOURAGE THE RETENTION OF OPEN SPACE.

	Policy
1	Implementation regulations should be considered which allow for innovative techniques for the provision and retention of open space including incentive based programs such as the public benefit rating system, open space tax program, purchase/transfer of development rights or conservation easements by public or private entities, and land trusts consistent with private ownerships rights.
2	Encourage compatible multiple use activities of public lands which support open space and recreational use in the County.
3	Public access should be encouraged where large blocks of public lands with significant recreation potential are rendered inaccessible because of intervening private holdings possibly using land trades while respecting the rights of private property owners.
4	Preserve outstanding natural and scenic resources, identified environmentally sensitive areas, and significant historic and cultural resources.
5	Identify and map open space corridors (RCW 36.70A.160) including land for recreation, wildlife habitat, trails, and connections of critical areas (RCW 36.70A.030).
6	Consider acquiring land or easements by donation or purchase identified within open space corridors.

PR 2 – ENCOURAGE THE DEVELOPMENT AND MAINTENANCE OF RECREATIONAL FACILITIES AND OPPORTUNITIES TO MEET THE NEEDS OF RESIDENTS AND VISITORS.

	Policy
1	Encourage the following criteria to be addressed in the development of park plans by public entities: A. Evaluate the need for new park facilities using the Recreation and Conservation Funding Board format; B. Neighborhood parks should be sited for accessibility and the enhancement of neighborhood; C. Evaluate need for waterfront access and waterfront-dependent activities, activity fields (soccer, etc.), special purpose facilities (sky park, skate park, etc.), indoor facilities, community centers, trails, funding mechanisms, and construction, and maintenance and operation.
2	Support the maintenance of four-season recreation and cultural events, and encourage the development of additional recreational and cultural opportunities where consistent with the

	comprehensive plan.
3	Encourage public access to shoreline areas in the development and maintenance of park and recreation opportunities, where consistent with the protection of critical areas and private property rights.
4	Chelan County should coordinate with public and private entities to provide and maintain open space and recreational opportunities in the County, to utilize the pattern of publicly owned land and floodplain areas, and existing park and recreation facilities to provide for the open space and recreation needs of current and future residents and visitors.
5	State and publicly owned tourist/recreation destinations should provide adequate sanitary facilities with a plan for maintenance.
6	Private and public park and recreation systems should provide and maintain a variety of open space, park and recreation facilities, and services to benefit the broadest range of age, social and economic groups and those with special needs and abilities.

PR 3 - PARK AND RECREATION PLANNING AND DEVELOPMENT SHOULD CONSIDER IMPACTS TO SURROUNDING LAND USES, CRITICAL AREAS, AND SIGNIFICANT NATURAL, SCENIC, HISTORIC, OR CULTURAL FEATURES.

Policy

1	Compatibility with adjacent land uses and the adequacy of infrastructure shall be considered in the development or expansion of recreational facilities.
2	Preserve areas that are environmentally sensitive or have historic, cultural or scenic value, in the development of park and recreation facilities and opportunities.
3	Site and design parks and recreation facilities so that they take advantage of significant natural features, environmentally sensitive areas, and historic and cultural resources.
4	Recreational opportunities and facilities should consider aesthetic quality as an important element in their design and development.

PR 4 – ENCOURAGE COORDINATION OF FEDERAL, STATE, LOCAL AND PRIVATE RECREATION PLANNING.

Policy

1	Where consistent with the goals and policies of this plan, support the park and recreation plans from the Manson Parks and Recreation District, cities within Chelan County, Chelan County P.U.D., Washington State, U.S.F.S., National Park Service, the Lake Chelan Valley Public Trails Comprehensive Plan, and other community initiatives.
2	Encourage early and continued public input in the development of recreational plans.

3	The County should coordinate with private and public park and recreation purveyors to determine the actual recreation demand and scope of needed facilities for the County.

PR 5 – ENCOURAGE ACTIVE COMMUNITIES THROUGH LAND USE DECISIONS AND DESIGNS THAT SUPPORT BIKEWAYS, PEDESTRIAN, EQUESTRIAN AND OTHER NON-MOTORIZED TRANSPORTATION MODES.

	Policy
1	Encourage physical activity through land use policies, transportation policies, regulations, design and, when feasible, community awareness and education.
2	Support implementation of multi-modal transportation facilities, continued use of public lands, and land uses such as parks, trail systems, sidewalks, road ways and other transportation systems, when reviewing land use designations, development permits and land divisions.

PR 6 - PROVIDE AND MAINTAIN ACCEPTABLE LEVELS OF PUBLIC FACILITIES AND SERVICES.

	Policy
1	Require a maintenance plan for the continued maintenance of parks and recreation facilities.
2	Encourage the expansion of parks and recreation facilities to meet the needs of area residents and visitors.
3	Support the adopted levels of service standards (LOS) in cities, urban growth areas, and established park districts.

Implementation

Parks and recreation play a major role in Chelan County. Implementing this plan will take time, money and dedication, but the results will be a stronger parks and recreation system and continued support and growth of that system. Leadership is a vital aspect of cohesively implementing a parks and recreation plan. Chelan County is the best entity to fill this leadership role. The parks and recreation plan identifies three key areas for leadership including:

- coordinating the process at the regional scale,
- creating connectivity with existing opportunities,
- developing partnerships.

Focusing in on these key areas will facilitate the process for implementing the following projects and processes. An implementation strategy will be developed within the next 6

months (January to June) that will outline the work program, duties, responsible entities, and costs. The following projects are illustrative and are not meant to be all inclusive.

Parks and Recreation Projects

Participants at the public and stakeholder workshops identified more than 40 individual parks and recreation project ideas that they believed helped address community need and demand. In many cases, the projects were targeted to improve or expand existing recreational facilities. The vast majority of the identified projects, however, were for trails.

The focus of this plan is to help the County stitch together Chelan County's parks and recreation fabric. The County's role is more oriented to facilitating recreation by reinforcing the parks and recreation efforts sponsored by cities and other agencies responsible for providing parks and recreation services. The projects included in this plan reflect that, emphasizing the need for trails that link parks and recreation facilities to each other and the provision of additional planning and feasibility services to help ascertain what types of projects should be located where.

The following list of projects includes planning efforts, feasibility studies and construction projects, presenting a range of work that needs to be undertaken to fulfill the promise of this parks and recreation plan. The projects have been categorized by project area, with those project areas prioritized in the following section.

Comprehensive Trails Plan – Of the projects mentioned by participants, over 20 were trails projects. They are in different stages of readiness, however, with only a few actually prepared to receive funding for either land conservation or development. The number and range of trails projects included on the overall project list underscore the importance of having an integrated trails system serving Chelan County. A trails plan is a crucial step in determining the linkages the trails will provide, exploring alignment, design, cost, phasing and relative priority. A comprehensive trails plan prepared by the County would dovetail with the trails and forest access plans prepared by Washington State Parks and the US Forest Service, ensuring that trails outside of state and federal lands connect with the larger recreational systems within them and should also involve Washington Department of Transportation, Chelan Port District, production agriculture interests, and the municipalities. This process would include and reference the Lake Chelan Valley Trails Master Plan.

Trail projects mentioned in this process to date include, in no particular order of priority:

- Wenatchee Foothills Trail – This particular trail is well through the planning stages and is prepared to receive funding for acquisition and development.
- Leavenworth-Wenatchee Valley Non-motorized Trail – This particular trail is in the planning stages and needs funding for acquisition and development. The descriptions of key features are listed in the demand and need assessment section of this plan
- Lakeside Trail – Phases of this Chelan area trail are under construction with additional funding for development needed.

- Upper Columbia River Water Trail
- Entiat Bridge Trail
- Sunnyslope Foothills Trail
- Wenatchee River Water Trail
- Monitor connector trail
- Columbia River Trail
- Dry Gulch Equestrian Trail
- Railway Preservation Trails
- Ski Hill Loop Trail
- East Leavenworth loop trail
- Entiat Bridge Trail
- Snowmobile Trails
- Horse trail system
- Alpine skiing (Mission Ridge)
- Nordic Ski Trails
- Connect Birch Mtn, Sunnyslope & Cashmere via trail
- Countywide Bike Routes
- Hay Canyon Ranch Trails

Figure 14 Projects could include identifying a countywide bicycle network

Other opportunities for trails and trail projects may very well be identified in the comprehensive trails plan. The comprehensive trails plan will document the status of each trail project and determine which projects will be ready for funding as the plan is implemented.

The following list includes important components for inclusion in a comprehensive trails plan. The sites were identified along the Wenatchee River from Leavenworth to Wenatchee by the Chelan Douglas Land Trust and are actively used by the boating community. Some of these areas should be considered for incorporation into the potential Leavenworth to Wenatchee trail while others would be more suited to the development of the water trail system on the Wenatchee River.

- Leavenworth National Fish Hatchery-Nordic trail system but underutilized in summer
- Ski Hill Trails-Existing Forest Service owned and ski club operated but underutilized during summer with a potential for mountain biking and additional hiking trails and community events
- Rattlesnake Hill Park-Potential bike/hike natural area with separate hiking/mountain biking trails and lookout/viewpoint on summit
- Enchantment Park-Existing Park with ball field park in Leavenworth

- Peshastin Mill Site-Potential multi-use facility incorporating residential, commercial, and public recreation/river access within property owned by Port of Chelan County
- Department of Fish and Wildlife (DFW) river access undeveloped and not maintained
- Dryden WA Dept. of Transportation property-potential park, river access and whitewater play feature.
- Dryden Dam- Dangerous Weir built for water diversion and Salmon Collection with proposals to the Chelan Public Utility District for modification for a whitewater play feature and safe passage
- Dept. of Fish and Wildlife Rodeo Hole- Fishing access used by kayakers for wave during peak runoff with potential trail to "Drunkards Drop" area
- Drunkards Drop Natural Area-County Salmon Recovery Backwater with potential for linking trail to DFW rodeo hole
- DFW Turkey Shoot-Underutilized fishing access located near significant river feature
- Cashmere City Park-Small City park used by kayakers when paddling Granny's wave
- City of Cashmere Riverside Park-Existing park includes river access, playground, Soccer field and Community building
- Wenatchee River County Park-County owned and operated park
- Wenatchee Confluence State Park-Multi use park and terminus for potential future valley trail from Leavenworth.

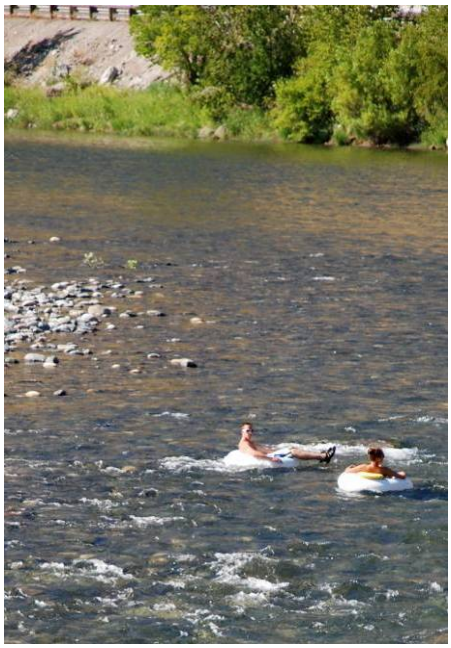


Figure 15 This portion of the Wenatchee River may become part of the Wenatchee Water Trail

Chelan County Expo Center Improvements – The County Expo Center will need improvements to existing facilities and an overall facilities expansion to accommodate increasing demand coming from the urban areas of the County. Part of this would include landscaping (trees). A key component would be to develop two soccer fields on existing property which is centrally located in the County. Fields will cost approximately $150,000 for the first field and restroom facility and the second field will not need a restroom with cost to be determined. Total cost for fields and landscape should be about $300,000. There is currently public transportation to the property with special service available during events. There is also potential for acquisition of adjoining land.

Stemilt Basin Land Exchange and Subarea Plan –The community has a unique opportunity to acquire and manage four checkerboard sections totaling 2,560 acres in the Stemilt Basin. The Stemilt Partnership was created in 2007 as a collaboration of over 15 organizations within the Stemilt Basin. The Partnership is currently working on a vision and inventory in cooperation with Washington Department of Natural Resources (DNR).

Chelan County requested the removal of those four sections from the overall exchange and now must develop a strategy for eventual ownership and management of the

sections. The entire landscape – Stemilt and Squilchuck basins – is being considered to better address ownership and management issues on the four sections. The two basins form a connected landscape that faces ever-increasing challenges of balancing development, conservation, recreational, and agricultural interests.

Wenatchee Row and Paddle Boating Facility Upgrade – Comments received representing the row and paddle club indicated a need for an expansion of the current storage facilities with lighting to accommodate private storage as well as 4 and 8 person rowing shells and outrigger canoes. Partners could include the City of Wenatchee, Chelan PUD, and the Wenatchee Valley College with a cost of about $100,000.

Figure 16 Boating is popular on Lake Chelan but there are few options for refueling

Columbia River Water Access and Boating Plan – Several of the projects on the overall list involved some degree of water access to the Columbia River. Whether it is construction of a marina or development of the Columbia River Water Trail, the interest for increasing public access to the river is high. This plan would address these facilities as an integrated system, incorporating the resources and facilities provided by the Chelan County PUD, the Port of Chelan County, Washington State Parks, the cities of Wenatchee and Entiat, and Chelan County. The plan will identify, cost and prioritize these various projects, creating a systematic strategy to ensure water access is effectively and successfully provided to the public.

Old Mill Manson Campground – There are currently seven acres of publicly owned vacant land located in the Manson area that the Manson Parks and Recreation District identified for overnight camping with 40 sites.

Manson Marina Expansion – Manson Parks Department identified a need for an expanded marina in Manson with an option for refueling.

Multi-Sport Eight-Plex – The Wenatchee parks plan and the Sports Council identified a need for a tournament quality dedicated sports facility that would be cooperatively developed through partnerships with public, schools, and private.

Subarea Parks and Recreation Planning

- **County UGAs –** Areas that are currently being planned for within Chelan county include Malaga, Manson, and Monitor and should have subarea planning that looks at local recreation and parks needs.
- **Malaga Park Plan –** Malaga has land that needs master planning and funding.

- **Cashmere Parks and Recreation Plan –** Participants identified the old sawmill site upriver from Riverfront Park as a potential park trail corridor. It and other recreation facilities should be included in an updated parks and recreation plan for Cashmere and its Urban Growth Area.

- **Entiat Subarea Plan –** Participants noted that a fire interpretive center and a public river access would be important recreational facilities in the Entiat area. A subarea plan for Entiat will identify these and other recreational opportunities in and around Entiat, making them ready to accept funding for acquisition or development.

- **Sunnyslope Master Parks Plan –** Parks planning needs to be master planned and implemented.

Questionnaire/Survey and Feasibility Studies Consideration – Projects were identified during the public workshops that merit more input from residents. A survey of residents will help determine what the current uses are and what might be wanted in the future. The County should determine which of the projects merit a feasibility study through the public questionnaire/survey. The survey can indicate what recreation options people spend time on now and what they would like to be doing with their time. The following are a few of the ideas that merit further investigation:

- **Squilchuck State Park Study –** The State is proposing a series of improvements to the park to increase its public accessibility. Trails, structures and entry features are some of the improvements suggested. While this is a state facility, it is included here to underscore its importance in the County's recreational fabric.

- **Chelan Butte Park Improvements Study** – Chelan Butte is a popular venue for paragliding, hiking, sightseeing, and other outdoor activities. No facilities now exist on the mountain. This study would be prepared in cooperation with the Bureau of Land Management and Washington State Parks to determine the feasibility and design of facilities on Chelan Butte to support its various public recreation activities.

- **Dog Park Feasibility Study** – Participants noted that there is demand for an off-leash dog park, but there is no site yet selected for such a facility. This feasibility study will produce a list of possible sites, determine appropriate design criteria and assess the likely success of an off-leash dog park in Chelan County. There is no requirement that the facility be located in unincorporated county.

- **Golf Course and Driving Range Feasibility Study** – A feasibility study will determine if Chelan County needs an additional executive golf course.

- **ORV Park Feasibility Study** – Demand and support for an off-road vehicle park is high. The feasibility study will find out if a facility can be supported in Chelan County, where the facility should be located and what types of amenities it should provide. The study would be prepared in cooperation with other likely recreation

services providers and landowners to ensure all possible sites are considered and evaluated.

Prioritizing Criteria

The following criteria create the basic framework for measuring specific facility improvements and specific plans (as identified and categorized by project area in the previous section). Each project is scored on a scale of 1 to 5, with 5 being best under each criterion. That raw score is then multiplied by the criterion's weight, resulting in a weighted score for that particular criterion. These weighted scores are then summed in the far right column, representing the total weighted score for each project. This allows the projects to be prioritized according to total score and then programmed over upcoming budget years.

Safety - Projects that improve or create a safe parks and recreation environment for residents and visitors to enjoy (weight-3)

Quality - Improvements to parks and recreation facilities and programming that are of the highest quality, and are well crafted (weight-3)

Access - Projects and initiatives that supply a broad collection of park facilities and recreation programming accessible to all users at a variety of times (weight-2)

Multi-Use – Projects that are designed so that they can serve more than one function at one location (weight-2)

Affordability – Projects that ensure that improvements to the parks and recreation infrastructure are done with a focus on squeezing the most value from each dollar spent (weight-2)

Seasonality - Projects that are undertaken to provide the residents and visitors with facilities and programming throughout the year (weight-2)

Funding – Project funding that comes from a special source such as a state grant or park development bond (weight-1)

Collaboration – Projects that involve various entities seeking partnerships and minimizing redundant facilities and programming (weight-2)

	Safety	Quality	Access	Multi-Use	Affordability	Seasonality	Funding	Collaboration	Raw Score	Weighted Score	Rank
Weight	**3**	**3**	**2**	**2**	**2**	**2**	**1**	**2**			
Project (scored from 1 to 5)											
Comprehensive Trails Plan	5	4	5	4	4	5	4	5	36	**72**	**1**
Chelan County Expo Center Improvements	3	5	5	5	4	5	5	4	36	**71**	**2**
Stemilt Basin Land Exchange and Subarea Plan	2	5	4	4	5	4	5	5	34	**65**	**3**
Wenatchee Row and Paddle Boating Facility Upgrade	4	3	1	1	2	2	2	3	18	**38**	**10**
Columbia River Water Access and Boating Plan	5	4	4	3	3	2	4	4	29	**59**	**6**
Old Mill Manson Campground	1	5	2	2	3	2	2	3	20	**41**	**8**
Manson Marina Expansion	1	4	1	1	3	2	4	3	19	**36**	**9**
Multi-Sport Eight-Plex	3	4	3	4	2	3	3	5	27	**53**	**7**
Subarea Parks and Recreation Planning	5	4	3	4	4	4	3	4	32	**64**	**4**
Questionnaire/Survey and consider Feasibility Studies	4	3	2	5	5	5	4	5	33	**64**	**5**

Capital Improvement Program

The Capital Improvement Program (CIP) outlines projects with the relative priority listed for each project. The projects included in this improvement plan are for at least the next six years. The estimated costs may change as conditions change. The estimated costs are outlined with the year, if known, for financing as required. The following projects are illustrative of projects being considered.

Priority	Project	Funding	Category*	Facility	Cost
	County Parks and Recreation Structure and Staffing	U	DEV	N/A	
1	**Comprehensive Trails Plan**	L, M	Planning	TB, TP, EQ, OS	$150,000
2	**Chelan County Expo Center Improvements**	M, L, B	DEV	FS, PF	$300,000
3	**Stemilt Basin Land Exchange and Subarea Plan**	LWCF, WWRP, M, Federal, State, Local, Non-profit	ACQ	OS, F, Habitat	$10,000,000
4	**Subarea Parks and Recreation Planning** **Examples: Sunnyslope Master Parks Plan, Malaga Park Plan**	L	Plan, DEV	N/A	$15,000 per project
5	**Questionnaire/Survey and consider Feasibility Studies**	L	Plan	N/A	$10,000
6	**Columbia River Water Access and Boating Plan**	M	ACQ, DEV	B, WF	
7	**Multi-Sport Eight-Plex**	U	ACQ	BS, FS	
8	**Manson's Old Mill Campground**	L, M, RCFB, WSPC	DEV	C	$2,500,000
9	**Manson Marina Expansion**	L, M, RCFB, WSPC	DEV	B, WF	$1,500,000
10	**Wenatchee Row and Paddle Boating Facility Upgrade**	M, U	DEV	B	$100,000

*Four project categories are considered by the RCO: Acquisition, Development, Renovation, and Restoration.

The CIP lists the funding options and project as categorized using:

Funding Sources	Project Categories
L – Local Funds	Acquisition
B – General Obligation Bonds	Development
U – Unknown	Renovation
D – Donation	Restoration
R – Revenue Bonds	
M- Matching Grant	
O – Other Bonds	
LWCF- Land and Water Conservation Fund	
WWRP- Washington Wildlife and Recreation Program	
RCFB – Recreation and Conservation Funding Board	
WSPC – WA State Parks Commission	

The CIP also includes all facility types that apply for each project with the primary use listed first. Facility types specify what funding can be considered and include:

Facility Type	Symbol	Facility Type	Symbol
Aquarium	A	Open Space, Greenway	OS
Administration, Maintenance	AM	ORV Facility, Trail	ORV
Boating Facilities	B	Picnic, Day Use	P
Basketball, Other Courts	BB	Play Equipment	PE
Botanical Garden	BG	Open Play Field	PF
Baseball, Softball Fields	BS	Swimming Beach	SB
Camping Facility	C	Swimming, Indoor Pool	SI
Community, Senior Center	CC	Swimming, Outdoor	SO
Equestrian Facility/Trail	EQ	Tennis Court	T
Fishing Area	F	Trail, Bicycle	TB
Football/Soccer Fields	FS	Trail, Pedestrian	TP
Golf Course	G	Winter Sports Facility	W
Interpretive/Nature Study	I	Waterfront/Beach Access	WF
Neighborhood Park	NPK	Zoo	Z

Funding Sources

In order to implement parks and recreation planning for Chelan County, it will be necessary to identify funding sources.

Revenue can be obtained from a combination of taxes, license and permit fees, state and federal grants, user service charges, fines and forfeits, miscellaneous interest earnings and sales, and pass-through federal revenue sharing monies. Major funding sources for park and recreation facilities can include property taxes, general obligation bonds, real estate excise taxes, grants and pass-through monies, and park mitigation fees.

Some of these options could be implemented by the County, while others would involve partnerships. Some sources have specific application and qualification requirements that the County will need to meet prior to receiving available grants or loans.

Capital Improvement Fund - Money allocated from the County's General Fund to finance major capital projects.

Certificates of Participation - A lease-purchase approach in which the County sells Certificates of Participation (COPs) to a lending institution. The County then pays the loan off from revenue produced by the facility or from its general operating budget. The lending institution holds title to the property until the COPs are repaid. This procedure does not require a vote of the public.

Conservation Futures Levy – The County can levy, by resolution, up to $.0625 per $1,000 assessed valuation for the acquisition of open space land, farm and agricultural land, and timber land (RCW 84.34). This money may only be used for acquiring rights and interests (easements) in real property.

Fee in Lieu of Parks and Open Space – A voluntary option for developers (RCW 82.02.020)

General Fund--General funds allocated to the Park and Recreation Budget.

General Obligation Bond - Property tax for the sale of construction bonds.

- Unlimited - The tax assessment can be levied up to 30 years with a bound council hired. Requires a 60% majority approval of 40% of the voters who voted at the last election.
- Limited Tax (Councilmanic) Bonds - Bonds that can be issued by the County Commissioners. Does not require a vote of the people but must be paid out of the annual operating budget.

Park Impact Fees - Development fees imposed on new development based on a set share of the impact.

Park and Recreation Districts and Service Areas - With citizen interest, the County could explore the possibility of creating more Parks and Recreation Districts/Service Areas for park needs. Districts are independently managed and could meet some of the need for urban facilities.

Park Revenue - Revenue from park operations used to pay for capital improvements.

Real Estate Excise Tax (REET) RCW 82.46**--**Levied on all real estate sales measured by the full selling price, including the amount of any liens, mortgages, and other debts given to secure the purchase.

- First 0.25 percent projects identified in the capital facilities element and housing relocation assistance
- Second 0.25 percent REET 2 - An additional excise tax on each sale of real property at a rate not exceeding 0.25 percent of the selling price restricted to projects in a capital

facilities plan.

- 0.50 Percent REET *in lieu* of Optional Sales Tax - the County may use this for any governmental purpose in unincorporated areas.
- 1.0 percent REET-The County may submit a ballot proposition to the voters for an added REET on each sale of real property at a rate not to exceed 1 percent of the selling price for acquisition and maintenance of Conservation Areas.

Revenue Bonds- Revenue from the operation of the facility pays for the capital cost and debt service. Does not require a vote of people unless required by local ordinance.

Special Levy - A property tax for construction and/or operation levied for a set number of years. It is usually short term, 1-3 years. A special levy requires a 60% voter approval.

State Recreation and Conservation Board Administered Funding

Aquatic Land Enhancement Fund (ALEA) - This program, funded by the State Department of Natural Resources, can finance acquisition, restoration, or improvement of aquatic lands for public purposes, and to provide interpretation and access to those lands and waters with 50 percent in matching resources required.

Boating Facilities Program (BFP) – Grants to acquire, develop, and renovate boating facilities like boat ramps, guest moorage, and support facilities

Boating Infrastructure Grant (BIG) - Grants to help with guest boating facilities for 26 feet and larger boats (25 percent match).

Firearm and Archery Range Recreation (FARR) – Aiming at acquiring, developing, and renovating firearm ranges and archery training and practice facilities with a a 33-50 percent match required.

Land and Water Conservation Fund (LWCF) - Grants to buy land and develop outdoor facilities for parks, trails, and wildlife lands. Grants require a 50percent match

National Recreational Trails Program (NRTP) – Federal funding through the RFCB to maintain backcountry trails and facilities with a required 20 percent match. examples of eligible projects include maintenance and rerouting of trails, trailside and trailhead facilities, environmental education, and trail safety programs.

Nonhighway and Off-Road Vehicle Activities (NOVA) – To develop and manage opportunities for backcountry trails and non-highway roads, grants can be used for planning, capital improvements, maintenance, operation, land acquisition, education, and law enforcement.

Washington Wildlife and Recreation Program (WWRP) – Acquisition and development parks, water access, trails. Funding is also available for critical wildlife habitat, natural areas, urban wildlife habitat, farmland preservation and protection of riparian areas with at least a 50 percent match.

Youth Athletic Facilities (YAF) – Grants to acquire, develop, maintain, and improve youth

and community athletic facilities with a 50 percent match required.

State Bicycle Funds - Money from a portion of state gas taxes is distributed to each city for bicycle trail development. The amount is usually small and often used to help finance trails along existing streets.

Non-Monetary Options

Density Bonus and Clustering - Consider density bonuses for open space and critical areas preservation or affordable housing. Clustering could focus on conserving resource lands and promoting larger open space areas consistent with rural character.

Dedication Requirement - A typical requirement of subdivisions.

Development Agreements - SEPA mitigation agreements including deferral of improvements or future dedication of land not subject to the five-year limitation in RCW 82.02.020.

Conservation Easements - a legal agreement between a landowner and a land trust or government agency that permanently limits uses of the land in order to protect its conservation values. Conservation easements can use a purchase or transfer of development rights program or donations.

Current Use Assessment - The Washington Open Space Taxation Act (RCW 84.34) allows property owners to have their open space, farm and agricultural, and timber lands valued at their current use helping to preserve private land in open space, farm and timber use.

Partnerships - Cooperative partnerships with agencies and citizen groups could be pursued by the county. The state and federal governments including the state Department of Natural Resources (DNR). DNR seeks better managed land through consolidation of land holdings using trades or sales. The county should continue to work with DNR and other state and federal agencies to identify opportunities to meet county open space needs.

Purchase of Development Rights -A process where the development rights of a specific parcel of desired open space land is purchased. A funding source, such as a bond, would need to be identified for a purchase of development rights program.

Transfer of Development Rights – A process where development rights of a specified parcel is transferred to a second parcel of land more suitable for development. The second parcel is then permitted a higher level of development. If the two parcels are owned by two different landowners, the increased value of the second parcel is given to the owner of the first parcel.

Volunteer Efforts - Volunteers can be quite effective in terms of contributing cash, materials or labor. Playgrounds, community gardens, and farmers markets have been developed though volunteer efforts. Adopt-A-Trail and Adopt-A-Greenway programs are examples of volunteer programs successfully implemented elsewhere.

RURAL ELEMENT

I. INTRODUCTION

The Growth Management Act (GMA) requires a Rural Element in the County's comprehensive plan. The Rural Element contains goals and policies to guide the development of rural land including the identification of the general types of uses to be permitted. Rural lands are all lands not designated for urban growth, or agriculture, forest or mineral resource lands. The GMA recommends providing for a variety of residential densities at levels that are consistent with the preservation of rural character and the requirements of the Rural Element. The Rural Element provides guidance on appropriate land uses and densities for Chelan County's rural areas. Rural governmental services should be provided at a level necessary to support and sustain the land use pattern planned for rural areas. Rural governmental services should not provide the level of service which promotes growth or sprawl in rural areas. The Growth Management Act provides the following definitions of rural development, rural character and rural governmental services:

A. Rural development refers to development outside the urban growth area and outside agricultural, forest, and mineral resource lands designated pursuant to RCW 36.70A.170. Rural development can consist of a variety of uses and residential densities, including clustered residential development, at levels that are consistent with the preservation of rural character and the requirements of the rural element. Rural development does not refer to agriculture or forestry activities that may be conducted in rural areas.

B. Rural governmental services or rural services include those public services and public facilities historically and typically delivered at an intensity usually found in rural areas, and may include domestic water systems, fire and police protection services, transportation and public transit services, and other public utilities associated with rural development and normally not associated with urban areas. Rural services do not include storm or sanitary sewers, except as otherwise authorized by RCW 36.70A.110(4).

C. Rural character refers to the patterns of land use and development established by a county in the rural element of its comprehensive plan:

1. In which open space, the natural landscape, and vegetation predominate over the built environment;
2. That foster traditional rural lifestyles, rural-based economies, and opportunities to both live and work in rural areas;
3. That provide visual landscapes that are traditionally found in rural areas and communities;
4. That reduce the inappropriate conversion of undeveloped land into sprawling, low-density development;
5. That generally do not require the extension of urban governmental services; and
6. That are consistent with the protection of natural surface water flows and ground water and surface water recharge and discharge areas.

II. INTENT

It is the intent of the Rural Element to preserve the rural character and way of life in the rural area, and to protect private property rights while considering impacts to the environment of Chelan County.

As noted in the Land Use Element, the majority of land within the County is in Federal or State ownership, and is therefore considered unbuildable within the planning horizon of this plan – the next twenty years. The Federal and State lands provide the County with one of the largest rural and natural park lands, these include: Glacier Peek Wilderness, Lake Chelan Sawtooth Wilderness, Wenatchee National Forest, Alpine Lakes Wilderness, Henry M Jackson Wilderness, North Cascades National Park and Lake Chelan national Recreation Area. These very large wilderness and park areas are not expected to develop but rather enhance the character of the County as a recreation and natural resource to locals and visitors.

In addition to Chelan County's rural character being dominated by park lands, Chelan County has a history of agricultural uses - primarily orchards of various sizes, residential rural living, forest practices, rural industrial activities, mining and small town settlements. More recently Chelan County has transitioned, in some areas, to vineyards, wineries, smaller-scale agricultural production and agricultural and recreational tourism. Within the Land Use Element each region of the County has been defined by the unique characteristics and rural character. The following goals and policies apply throughout the County.

The goals and policies in the Rural Element are to guide land use activities in rural lands. Goals and policies have been developed for the preservation of the rural character of rural lands that address: Containing or otherwise controlling rural development; assuring visual compatibility of rural development with the surrounding rural area; reducing the inappropriate conversion of undeveloped land into sprawling, low-density development in the rural area; protection of critical areas, surface water and ground water resources; and protecting against conflicts with the use of agricultural, forest, and mineral resource lands of long-term commercial significance.

III. GOALS AND POLICIES

Goal RE 1: Rural areas should maintain a balance between human uses and the natural environment.

> Goal Rationale: Residents who choose to live in the rural areas need to realize that their lifestyle has an impact on the natural environment and efforts need to be made to find and maintain a balance between human activity and the natural environment.

Policy RE 1.1: Critical Areas existing within rural lands can have a valuable use as wildlife habitat, and open space and recreation. Where appropriate, rural development may also occur within these areas if suitable mitigation can be provided.

> Rationale: Wildlife habitat, and open space and recreation are all land uses which are typically located in rural areas and are an important part of the reason why people choose to live in a rural setting. Therefore, development may occur when suitable mitigation is provided to address impacts to Critical Areas existing in rural lands.

Policy RE 1.2: Uses not specifically addressed or prohibited in the comprehensive plan are not automatically allowed and should be reviewed on their own merits for compatibility with the existing goals and policies.

Rationale: Should there be a new land use or an innovative technique towards the management of growth, they can be reviewed during the annual review process to analyze their compatibility with existing goals and policies of the plan.

Policy RE 1.3: Provide for a variety of rural densities and designations that would accommodate the wide variety of rural land uses which represent the rural character.

Rationale: The rural areas of Chelan County contain a variety of land uses and densities that comprise the rural character of the area. Continuing this pattern, will help to maintain and enhance this rural character.

Policy RE 1.4: Essential public facilities and/or services should be sited and developed in a manner which maintains the rural character of the area. Essential public facilities and/or services are appropriate for location in rural areas when suitable mitigation is provided.

Rationale: Essential public facilities and/or services should not compromise the goal of the Rural Lands.

Goal RE 2: maintain the land and water environments which support and enhance natural resource-based economic activities, wildlife habitats, TRADITIONAL rural lifestyles, outdoor recreation and other open spaces.

Goal Rationale: This recognizes the value that rural lands have in the economic vitality, lifestyles, and environmental health of the County.

Policy RE 2.1: The County shall review development applications to determine the potential for groundwater contamination.

Rationale: Preventing groundwater contamination is necessary to avoid exorbitant costs, hardships, and potential physical harm.

Policy RE 2.2: Agriculture and timber lands that are not designated resource lands should be accommodated in the rural setting. The development of rural lands should not preclude the existing use of land for agriculture or timber production.

Rationale: Productive agriculture and timber lands exist in the rural areas. Potential negative impacts to these lands from more intense land uses should be avoided through the application of appropriate mitigation measures and/or the use of innovative techniques.

Policy RE 2.3: Rural development (residential, commercial and industrial) near designated resource lands shall be developed in a manner which minimizes potential conflicts and reduces the conversion of farm and forest land to non-resource uses. Mitigating measures shall be developed to provide an adequate level of protection against potential conflicts.

Rationale: The close proximity of rural lands to resource lands is unavoidable. The presence of these resource activities such as forests and agricultural production adds to the character of these rural lands. However, many activities which take place on these resource lands are not compatible with other activities, especially residential uses. Since the conservation of these resource lands may be jeopardized by development which is not sensitive to the activities that characterize a resource based land use; it is important to provide mitigating measures that will provide an adequate transition area between potentially conflicting land uses.

Policy RE 2.4: Allow for seasonal housing facilities accommodating agricultural employees and their families, provided that such housing facilities shall be considered accessory to the agricultural use and are not detrimental to the rural character of the area.

Rationale: The ability for agricultural operations to provide seasonal farmworker housing on site can be essential for the viability of many farming operations.

Policy RE 2.5: Chelan County should coordinate with public entities such as the Chelan County Public Utility District and Federal and State agencies to utilize the pattern of publicly owned land and floodplain to provide for the open-space and recreation needs of future residents and visitors. The parks and recreation system should provide and maintain a variety of open space, park and recreation facilities, and services to benefit the broadest range of age, social, and economic groups and those with special needs and disabilities.

Rationale: Rural areas often provide unique settings for recreational opportunities. The development of recreational systems will benefit residents and visitors to the area. However, suitable mitigation should be provided to address potential negative impacts to adjacent rural uses from more intense land uses.

Policy RE 2.6: Protect and encourage the enhancement and restoration of habitat for fish and wildlife.

Rationale: Adequate protection is necessary for the quality of life for residents and for visitors, and for the health of the environment.

Policy RE 2.7: Development and recreational opportunities in rural shoreline areas shall minimize potential adverse impacts to water quality, slope stability, vegetation, wildlife and aquatic life.

Rationale: Shorelines are a natural attribute which enhance the rural character of the area. It is important to protect the quality of the shoreline, water bodies and wildlife habitat.

Policy RE 2.8: Encourage the preservation and protection of unique, rare and fragile natural features, scenic vistas, unstable bluffs, and culturally significant features.

Rationale: These features contribute to the character and attractiveness of the rural area. Their preservation enhances the openness and aesthetic quality of the area. The use of voluntary incentives including the Chelan County Public Benefit Rating System used in evaluating applications for current use taxation of property under the

Open Space Program and clustering provisions will help to encourage the preservation and protection of these areas.

Policy RE 2.9: In the creation of development regulations to implement this plan the County shall consider regulatory options which provide developers the opportunity to use innovative site designs that promote open space preservation.

Rationale: Innovative development regulations can create an incentive approach, which makes it attractive to property owners, and developers to provide open space to enhance the community appearance. With this approach the developer's goal can be achieved while still providing a quality development which enhances the rural character of the area.

Policy RE 2.10: When open space areas are provided in a development, provisions shall be made to identify: who owns the open space, what uses or activities will be permitted on it, how the area will be maintained, and whether public access will be provided. This information shall be contained on the face of the plat.

Rationale: One of the drawbacks of providing open space is determining how it should be managed. It is important to establish this at the design stage so everyone is clear on their responsibilities. When the information is noted on the face of the plat, all subsequent property owners will be aware of the open space provisions.

Policy RE 2.11: In order to achieve a variety of rural densities and uses, the County 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 and that are consistent with rural character.

Rationale: The amount of privately owned developable land in the County is limited. Innovative techniques can provide for rural development while protecting the rural character of the County.

Policy RE 2.12: Recognize local environmental factors and visual impacts in the review and approval of residential development in hillside areas.

Rationale: Hillside residential development offers a number of potential advantages, if properly established. If hillsides are to be both used and enjoyed by present and future residents of the area, development polices must include soundly based standards and performance criteria, yet have sufficient flexibility to fit varied environmental conditions.

Policy RE 2.13: Development in hillside areas should be encouraged to take maximum advantage of benches, terraces, and forested areas as desirable building sites, and to minimize the impacts of development in open, exposed, and visually conspicuous areas.

Rationale: Properly planned development on hillsides will help to mitigate the aesthetic and physical impacts of such development.

Policy RE 2.14: Where appropriate, duplication of road systems in hillside areas shall be discouraged. Adequate provision shall be made for handling storm drainage from hillside development.

Rationale: Road cuts impact on the visual quality of hillsides and are a source of erosion and shall be minimized.

Goal RE 3: Develop at densities such that demands will not be created for urban levels of public services and facilities.

Goal Rationale: Development in rural areas should not be at densities which require urban levels of service. Development at lower densities will also help protect the rural quality of life.

Policy RE 3.1: The provision of rural governmental services should be recognized as non-urban levels of services. The rural community should expect rural governmental services including police, fire, roads, and general utilities.

Rationale: Limited public facilities and services will be provided to persons living and working in rural areas. Urban levels of services should not extend beyond urban growth areas, except where provided for under the Growth Management Act.

Policy RE 3.2: It is the policy of Chelan County to recognize the future inclusion of certain rural lands into urban growth areas. Therefore, the density of rural lands immediately adjacent to an urban growth area should be a density that would allow for further subdivision of land and ensure the opportunity for orderly placement of infrastructure when included in an Urban Growth Area.

Rationale: Land that is immediately adjacent to an urban growth area is unique in that it has a greater potential to eventually develop at higher densities. Therefore, it is appropriate that these lands develop at an appropriate rural density so that when they do obtain the opportunity to develop in an UGA, they will permit the orderly extension of public utilities.

Policy RE 3.3: Rural areas adjacent to urban growth areas can function as reserve areas for future growth and expansion of urban growth areas. Capital facilities and transportation plans should consider the potential for these areas to become urban growth areas. These plans should try to anticipate, where appropriate, where future additional infrastructure and facilities will be sited.

Rationale: Anticipation of future siting needs for facilities and infrastructure will help ensure the orderly expansion of urban growth areas.

Policy RE 3.4: The County should encourage innovative site designs that use alternatives to conventional on-lot disposal systems.

Rationale: Innovative site designs can take advantage of alternative wastewater systems such as community drainfields within open space areas which may be effective in reducing potential failures and contamination of water sources.

Policy RE 3.5: Planning and design of road systems in rural areas should consider and minimize the potential impact on and interference with agricultural operations.

Rationale: It is important to evaluate the potential impact on agricultural lands from road system development, to prevent the loss of agricultural lands.

Policy RE 3.6: Encourage the use of natural engineering design methods such as grassed swales instead of curb and gutter.

Rationale: Since these rural areas do not have stormwater systems, utilization of natural systems to retain and filter runoff from roadways should be encouraged.

Policy RE 3.7: New roads shall keep their physical impact on the natural setting to a minimum.

Rationale: Older roads, in rural areas, tend to be fairly narrow and generally follow alignments developed in response to the topography and geography of the area. New roads should be designed and built with the rural character in mind to add to the variety and appeal of the landscape rather than becoming an intrusion on it.

Policy RE 3.8: New public road systems shall accommodate alternative modes of travel such as public transportation, pedestrian and bicycle routes, where appropriate.

Rationale: Rural areas may provide recreational opportunities not available in an urban setting. Provisions for bicycle and pedestrian traffic are important to provide this recreational opportunity safely and aesthetically. It is also important to make provisions for public transportation to reduce traffic congestion and provide an alternative to automobile commuting.

Policy RE 3.9: If private roads are utilized in rural developments, rural standards shall maintain adequate access for emergency vehicles, utility placement, multiple ingress and egress points, vehicle flow and maneuverability. Maintenance agreements shall be required for all private roads.

Rationale: Private roads have the potential of being taken over by the County and can result in problems when adequate provisions are not made for emergency access, utility corridors, and long-term maintenance.

Policy RE 3.10: Where consistent with State and local requirements, encourage innovative site designs that utilize community water systems.

Rationale: Innovative site designs can provide an affordable option for rural residential development since many of the site improvement costs and restrictions associated with individual wells can be distributed equally between all the home sites.

Policy RE 3.11: The water supply and rights of existing homes in the County should be protected. Existing homes with an adequate supply of well, surface water or spring water should not be required to hook up to a new public system.

Rationale: Many of the rural areas in the County have experienced significant water problems for quite some time. It is essential to the sustainability of agricultural activities and the health and safety of current residents that water be available to these areas. It is the intent of this policy to recognize the rights of homes with existing on-site water to continue using their domestic water source.

Policy RE 3.12: Fire protection standards should be developed and implemented for all commercial, industrial and residential development within rural areas.

Rationale: Rural development depends upon adequate safety standards to protect life and property in rural areas.

Policy RE 3.13: Require the use of fire retardant building materials for structures within forested areas, where appropriate.

Rationale: Increase the buildings tolerance to withstand heat and ash exposure thereby allowing more time for fire suppression.

Policy RE 3.14: The fire districts and the County Fire Marshal should provide input for design standards for adequate ingress and egress to new developments to address fire safety issues.

Rationale: To provide adequate escape routes for residents and emergency vehicles.

Policy RE 3.15: Provision should be made for reasonable access to any on-site water bodies such as lakes, streams, ponds, public fire department cisterns and swimming pools.

Rationale: To provide access to water for pumper trucks.

Policy RE 3.16: Encourage the use of fire prevention measures which may include: perimeter fire breaks; appropriate placement of structures; natural vegetative thinning; road right of way; or other measures. Consideration should be given for the provision of fire prevention measures. Methods should be identified for monitoring and enforcement of fire protection measures.

Rationale: A major threat to developments in rural areas is that fire will start outside and move into the development. A perimeter fire break can be very important in strengthening the defensibility of structures. Other fire prevention measures can be used that reduce the fuel sources for fire and provide individual structures with added protection from fire damage. It is important to identify who would police the maintenance of fire prevention features.

Policy RE 3.17: Densities allowed determine how many people can ultimately reside in the County. Appropriate rural densities and designations should be applied which maintain the rural character, accommodate rural population projections and can be provided with rural services within the constraints of the County Budget and Capital Facility Plan.

Rationale: In order to plan for and fund the proper size and extent of supporting public facilities, utilities and services, the density and extent of future development areas must be specified.

Policy RE 3.18: Where reasonably feasible, require all future Chelan PUD power line extensions to be placed underground in order to maintain the maximum rural feeling and reduce downtime.

Rationale: Visitor appreciation, and reliability and safety of the system, will be improved with utilities moved underground. The rural character of the community will be enhanced.

Policy RE 3.19: Allow for the infill, development, and redevelopment of existing intensely developed rural recreational areas where consistent with the goals and policies of the comprehensive plan.

Rationale: Rural recreational developments provide the opportunity for residential development, multiple uses of a recreational area, and innovative techniques to meet the needs and desires of the public to live and recreate in rural areas, with access or close proximity to natural amenities.

Policy RE 3.20: Allow for the infill, development, and redevelopment of existing intensely developed residential or mixed use areas within rural lands when consistent with the goals and policies of the comprehensive plan.

Rationale: The infill, development, and redevelopment of existing intensely developed residential or mixed use rural areas may provide an opportunity for higher residential densities to meet affordable housing needs for rural residents.

Policy RE 3.21: Allow for the infill, development, and redevelopment of existing intensely developed rural shoreline areas when consistent with the goals and policies of the comprehensive plan.

Rationale: Rural waterfront development provides the opportunity for residential development, multiple uses of the shoreline, and innovative techniques to meet the needs and desires of the public to live and recreate in shoreline areas.

Policy RE 3.22: Necessary public facilities and public services may be provided for the development, infill, and redevelopment of existing intensely developed residential, mixed use, shoreline, commercial and industrial areas outside of urban growth areas. Provision of such services shall not be provided in a manner which permits low density sprawl outside of the boundary of the designation area.

Rationale: This policy recognizes the existence of intensely developed areas in rural lands and provides for the provision of necessary public facilities and services.

Goal RE 4: Encourage rural economic development consistent with the goals and policies of the Chelan County Comprehensive Plan.

Goal Rationale: The comprehensive plan provides for a range of rural economic activities including: rural agriculture, forestry, and mineral resource industries as well as a range of rural development opportunities consistent with the Growth Management Act.

Policy RE 4.1: Recognize that small scale recreational, tourist, and resort development, including commercial facilities to serve those recreational or tourist uses, that rely on a rural location and setting, but that do not include new residential development, may locate in rural areas and should do so consistent with other goals and policies of this plan.

Rationale: These uses are appropriate in rural areas when it can be demonstrated that they are compatible with the goals and policies of the comprehensive plan. Public services and public facilities shall be limited to those necessary to serve the recreational or tourist use and shall be provided in a manner that does not permit low density sprawl.

Policy RE 4.2: Additional commercial centers or activities may be considered in existing rural activity centers, villages, hamlets, or crossroad developments in the rural area during the yearly amendment process for the comprehensive plan when consistent with RCW 36.70A.070(5) and the goals and policies of the comprehensive plan.

Rationale: Limited commercial development may be appropriate in some rural areas to meet the needs of residents and visitors.

Policy RE 4.3: The siting of industrial uses may be allowed in rural areas when it can be demonstrated that adverse impacts to the rural community can be minimized and that the requirements under RCW 36.70A.365 or RCW 36.70A.070(5) can be met.

Rationale: Some industrial uses, because of the nature of their operations, are more appropriately located in rural areas.

Policy RE 4.4: Standards should be developed in the preparation of future zoning codes to allow for isolated cottage industries and small businesses, and home occupations, and should ensure that they are not in conflict with adjacent land uses. Isolated cottage industries and small business shall not be principally designed to serve existing and projected rural population and nonresidential uses, but do provide job opportunities for rural residents.

Rationale: There are many home occupations and cottage type industries that are compatible with the rural character. Self employed businesses, small daycare homes, home assembly type business, for example, should be allowed when they are not intrusive to the area. The community can greatly benefit from supporting home industry as it can assist in diversifying the economy.

Policy RE 4.5, STEHEKIN STUDY AREA: Encourage new visitor facilities and services, as is consistent with the national mandate for recreation and visitors in the Lake Chelan National Recreation Area, in coordination with the 1995 General Management Plan for the Lake Chelan National Recreation Area.

Rationale: Growth of the state and all associated areas indicates increased visitor use for Stehekin. Tastefully constructed and environmentally sensitive installations to support the increased number of visitors are required and desired.

Policy RE 4.6: MPRs may be considered within rural areas when consistent with the provisions of the comprehensive plan and RCW 36.70A.360.

Rationale RCW 36.70A.040 requires all land use regulations to be consistent with and implement the adopted comprehensive plan.

Goal RE 5: Provide regulatory opportunities for remote industrial uses to be located in remote rural areas.

Goal Rationale: Some industrial uses provide a contribution to the diversity of the local economy; however the nature of the use may be incompatible with location close to other uses. Regulatory opportunities for these uses should be created which allow the use while adequately mitigating impacts and protecting the public health, safety and welfare.

Policy RE 5.1: Development regulations provisions for remote industrial uses shall ensure that public health, safety and welfare are protected.

Rationale: The remote location of a use and lack of adjacent uses does not negate the responsibility of protecting the public from potential adverse impacts.

Policy RE 5.2: Remote industrial uses shall address potential impacts to surrounding land uses and designated critical areas.

Rationale: While a use may more appropriately be located in a remote rural location; the importance of mitigating the impacts of the use should not be minimized by that lack of nearby uses.

IV. RURAL DESIGNATIONS/SITING CRITERIA:

The following designations apply to the implementation of the Comprehensive Plan through the zoning map. The following purpose and locational guidelines provide a basic understanding of the zoning districts intent and how they relate to the Comprehensive Plan designations, see the Land Use Element.

A. RR20, RURAL RESIDENTIAL/RESOURCE: 1 DWELLING UNIT PER 20 ACRES

Purpose: To allow for low intensity rural development, agricultural and forestry uses which do not require the extension of services or infrastructure. These areas provide greater opportunities for protecting sensitive environmental areas and creating open space typical of a rural setting.

Uses appropriate for these areas include: open space; residential; agriculture; and forestry. Additional uses may be considered with supplemental provisions. These provisions shall address performance standards, impacts to the surrounding area, and be consistent with the goals and policies of the comprehensive plan. Such uses may include: natural resource support facilities and services; mineral resource activities; intensification of existing small scale recreational or tourist uses that rely on a rural location or setting, but that do not include a new residential component; intensification of development on lots containing existing isolated nonresidential uses; home occupations; bed and breakfasts; and community facilities.

Density: One (1) dwelling unit per twenty (20) acres.

Locational Guidelines:

1. Geographical and Geological Characteristics. These areas tend to be remote or have been historically rural in character. Soil characteristics, steep slopes or other physical constraints to development may be present. Large tracts of undeveloped, open space exist.

2. Natural Resources. The area may have agricultural or forest land practices of both small scale and/or commercial significance. The area may also be adjacent to designated resource lands.

3. Public Services. Uses do not require extension or provision of urban level services. In many cases public roads or infrastructure are not available to serve the area, and may not be available in the 20 year planning period.

4. Existing Land Uses. Dispersed single family residences, farms or forest management activities, and other low intensity rural development may be present. Predominant parcel sizes are 20 acres or greater.

B. RR10, RURAL RESIDENTIAL/RESOURCE: 1 DWELLING UNIT PER 10 ACRES

Purpose: To allow for rural development, forestry and agricultural uses consistent with the rural character and rural development provisions outlined in the goals and policies of the comprehensive plan. These areas can function as areas of transition between resource lands and areas of more intense rural or urban development. These areas also provide opportunities for protecting sensitive environmental areas and creating open space typical of a rural setting.

Uses appropriate for these areas include: open space; residential; agriculture; and forestry. Additional uses may be considered with supplemental provisions. These provisions shall address performance standards, impacts to the surrounding area, and be consistent with the goals and policies of the comprehensive plan. Such uses may include: natural resource support facilities and services; mineral resource activities; intensification of existing development or new development of small scale recreational or tourist uses that rely on a rural location or setting but that do not include a new residential component; intensification of development on lots containing existing isolated nonresidential uses or new development of isolated cottage industries and isolated small-scale businesses that are not principally designed to serve the existing and projected rural population and nonresidential uses, bur do provide for job opportunities for rural residents; home occupations; bed and breakfasts; and community facilities.

Density: One (1) dwelling unit per ten (10) acres. Clustering consistent with the underlying densities and the rural character and rural development provisions of the goals and policies of the comprehensive plan may be permitted. Topography, critical areas, other environmental constraints, and compliance with all other applicable development standards shall be considered in the provisions to allow for clustering.

Locational Guidelines:

1. Geographical and Geological Characteristics. The area is predominantly rural in character. Soil characteristics, steep slopes or other physical constraints to development may be present. Significant areas of undeveloped open space may exist.

2. Natural Resources. The area may have agricultural or forest land practices of both small scale and/or commercial significance. The area may also be adjacent to designated resource lands.

3. Public Services. Uses do not require the extension or provision of urban level services. These areas are rural in character and may have access or limited access to rural governmental services and infrastructure. These areas may have the potential to be provided with rural governmental services within the 20 year planning period.

4. Existing Land Uses. Dispersed single family residences, farms or forest management activities and other rural development may be present. Predominant parcel sizes are 10 acres or larger.

C. RR5, RURAL RESIDENTIAL/RESOURCE: 1 DWELLING UNIT PER 5 ACRES

Purpose: Provides opportunities for small scale agricultural activities, and rural development consistent with the rural character and rural development provisions outlined in goals and policies of the comprehensive plan. These areas may provide opportunities for protecting sensitive environmental areas and open space typical of a rural setting. RR5 designations adjacent to urban growth areas are intended to encourage the preservation of rural areas until such time as they serve as urban growth areas and urban services become available. RR5 designations can also act as buffers between designated resource lands and more intense rural or urban development.

Uses appropriate for these areas include: open space; residential; agriculture; and forestry. Additional uses may be considered with supplemental provisions. These provisions shall address performance standards, impacts to the surrounding area, and be consistent with the goals and policies of the comprehensive plan. Such uses may include: natural resource support facilities and services; mineral resource activities; intensification of existing development or new development of small scale recreational or tourist uses that rely on a rural location or setting but that do not include a new residential component; intensification of development on lots containing existing isolated nonresidential uses or new development of isolated cottage industries and isolated small-scale businesses that are not principally designed to serve the existing and projected rural population and nonresidential uses, but do provide job opportunities for rural residents; home occupations; bed and breakfasts; and community facilities.

Density: One (1) dwelling unit per five (5) acres. Clustering consistent with the underlying densities and the rural character and rural development provisions of the goals and policies of the comprehensive plan may be permitted. Topography, critical areas, other environmental constraints, and compliance with all other applicable development standards shall be considered in the provisions to allow for clustering.

Locational Guidelines:

1. Geographical and Geological Characteristics. The area is predominantly rural in character. Soil characteristics or other physical constraints to development may also be present. Some areas of undeveloped, open space may exist. The area may also be adjacent to designated urban growth areas.

2. Natural Resources. The area may have agricultural or forest land practices of both small scale and/or commercial significance. The area may also be adjacent to designated resource lands.

3. Public Services. Uses do not require extension or provision of urban level services. Rural governmental services are available or may be provided for within the 20 year planning period.

4. Existing Land Uses. Dispersed single family residences, farms or forestry uses, cottage industries and small businesses, and other rural development may be present. Predominant parcel sizes are 5 acres or larger.

D. RR2.5, RURAL RESIDENTIAL: 1 DWELLING UNIT PER 2.5 ACRES

Purpose: To maintain the range of rural development opportunities consistent with the rural character and rural development provisions outlined in the goals and policies of this comprehensive plan. These areas can provide buffering or transitions between existing rural developments and areas of higher or lower densities. This designation should not function as an urban reserve area, although these areas may someday be incorporated into an urban growth area.

Uses appropriate for these areas include: residential; agriculture; and forestry. Additional uses may be considered with supplemental provisions. These provisions shall address performance standards, impacts to the surrounding area, and be consistent with the goals and policies of the comprehensive plan. Such uses may include: intensification of existing development or new development of small scale recreational or tourist uses that rely on a rural location or setting but that do not include a new residential component; intensification of development on lots containing existing isolated nonresidential uses or new development of isolated cottage industries and isolated small-scale businesses that are not principally designed to serve the existing and projected rural population and nonresidential uses, but do provide job opportunities for rural residents; home occupations; bed and breakfasts; and community facilities.

Density: One (1) dwelling unit per 2.5 acres. Clustering consistent with the underlying densities and the rural character and rural development provisions of the goals and policies of the comprehensive plan may be permitted. Topography, critical areas, other environmental constraints, and compliance with all other applicable development standards shall be considered in the provisions to allow for clustering.

Locational Guidelines:

1. Geographical and Geological Characteristics The area may have moderate soil limitations and may have other limited physical constraints to development. The area may be immediately adjacent to existing residential or rural developments. The area may be adjacent to urban growth areas.

2. Natural Resources. The area has limited resource management potential. The area may be adjacent to resource lands.

3. Public Services. Uses do not require extension or provision of urban levels of services. Rural governmental services and infrastructure are typically available, planned and or funded for.

4. Existing Land Uses. Single family residences, agricultural uses, cottage industries and small businesses, and other rural development may be present. Predominant parcel sizes are currently 2.5 acres or greater in size but typically less than 5 acres.

E. RURAL PUBLIC LANDS AND FACILITIES (RP):

Purpose: To provide open space, recreational opportunities, sites for necessary public facilities, utilities and services, and protection of critical areas. Encourage joint public/private ventures, where consistent with the rural development and rural character provisions, and goals and policies of this comprehensive plan.

Uses appropriate for these areas include: public facilities and services, open space and developed open space; agriculture; and forestry. Additional uses may be considered with supplemental provisions. These provisions shall address performance standards, impacts to the surrounding area, and be consistent with the goals and policies of the comprehensive plan. Such uses may include: natural resource support facilities and services; mineral resource activities; intensification of existing or new development of small scale recreational or tourist uses that rely on a rural location or setting but that do not include new residential development; and intensification of development on lots containing isolated nonresidential uses or new development of isolated cottage industries and isolated small-scale businesses that are not principally designed to serve the existing and projected rural population and nonresidential uses.

Locational Guidelines:

1. Geographical and Geological Characteristics: These lands are in public ownership and may contain critical areas. The County has no jurisdiction over federal lands.

2. Natural Resources: Public lands may contain resource lands.

Public Services: Services should be limited to the needs of the public agencies. Extension of public services can be considered for joint public/private ventures if consistent with the provisions of the comprehensive plan. Development in these areas shall not create a need for urban governmental services.

V. LIMITED AREAS OF MORE INTENSIVE RURAL DEVELOPMENT

<u>Introduction</u>

Generally, the rural element is to provide for a variety of rural densities, uses and facilities and services, and to recognize that a variety of developments already exist in rural areas. This includes some development that is more compact than the surrounding rural lands, which are considered to be Limited Areas of More Intensive Rural Developments (LAMIRD).

There are three distinct types of LAMIRDs that may be designated pursuant to RCW 36.70A.070(5)(d). Type 1 can either be commercial, industrial, residential, or mixed-use. Type 2 delineates existing commercial tourist or recreational commercial uses as well as allowing some new commercial tourist uses that rely on a rural location. The Type 3 LAMIRD identifies isolated small-scale businesses. Generally, limited areas of more intensive rural development include necessary public facilities and public services to serve that area.

Intent

LAMIRDs are designated to identify more intense areas of existing development, and to minimize and contain those existing developed areas within the rural lands. LAMIRDs are not intended by the Legislature to be mini-UGAs, suburbs or areas for significant future development. LAMIRDs are rural; they are contained and compact, and, with minor exceptions, were built before July 1, 1990. Though the LAMIRD will recognize existing development, it cannot promote sprawl or low-density growth in the rural area. In designating LAMIRDs, the County has established clear criteria to address each type of LAMIRD. Those criteria generally address the need to contain and control existing development, and the need to preserve the character of the community, its physical boundaries and prevent abnormally irregular boundaries. The criteria will also determine how public facilities and services will be provided in a manner that does not permit low density sprawl.

General LAMIRD Criteria

Lands designated as LAMIRDs will not extend beyond the logical outer boundary of the existing area or use. Existing areas are those that are clearly identifiable and contained and where there is a logical boundary delineated predominately by the built environment, but may also include limited undeveloped lands within the LAMIRD. Generally, future development may occur as infill or redevelopment, although new development can occur in some LAMIRD types. In establishing the logical outer boundary the County will address (A) the need to preserve the character of existing natural neighborhoods and communities, (B) physical boundaries such as bodies of water, streets and highways, and land forms and contours, (C) the prevention of abnormally irregular boundaries, and (D) the ability to provide public facilities and public services in a manner that does not permit low-density sprawl. Upon the initiation or update of a community and/or sub-area plan in the rural areas of the County, future LAMIRDs will be evaluated and existing LAMIRD designations will be updated as necessary to be consistent with the Gromwth Management Act provisions in RCW 36.70A.070(5) for Limited Areas of More Intensive Rural Development (LAMIRDs).

Type 1 LAMIRD- commercial, industrial, residential, or mixed-use.

Type 1 LAMIRDs are described as rural development consisting of existing and potential infill of commercial, industrial, residential, or mixed use, whether characterized as shoreline developments, villages, hamlets, rural activity centers, or crossroads developments. These LAMIRDs must meet the general criteria listed above, and must be principally designed to serve the existing and projected rural population (with the exception of industrial LAMIRDs and/or industrial uses within a mixed use LAMIRD, which are not required to meet this standard). It is also important that these designations are consistent with the character of the existing uses, particularly in terms of building size, scale, use or intensity. Changes in use from vacant land or some previous use may be allowed, provided the new use complies with these above requirements.

Type 2 LAMIRD- existing commercial tourist or recreational commercial uses as well as some new commercial tourist uses in a rural location.

Type 2 LAMIRDs are an intensification of development on lots containing, or new development of, small-scale recreational or tourist uses, including commercial facilities to serve those recreational or tourist uses that rely on a rural location and setting. This type of LAMIRD designation is not required to only serve the existing and projected rural population, but it also may not include new residential development. Public services and public facilities are limited to those necessary to serve the recreation or tourist use and will be provided in a manner that does not permit low-density sprawl.

Type 3 LAMIRD- isolated non-residential, cottage industries and small-scale businesses.

Type 3 LAMIRDs are the intensification of development on lots containing isolated nonresidential uses or new development of isolated cottage industries and isolated small-scale businesses. This type of LAMIRD is not principally designed to serve the existing and projected rural population and nonresidential uses, but does provide job opportunities for rural residents. The County may allow the expansion of small-scale businesses as long as those small-scale businesses conform with the rural character of the area as defined by the County through a process consistent with RCW 36.70A.030(14). The County may also allow new small-scale businesses to utilize a site previously occupied by an existing business as long as the new small-scale business conforms to the rural character of the area as defined by the County. Public services and public facilities are limited to those necessary to serve the isolated nonresidential use and will be provided in a manner that does not permit low-density sprawl.

GOALS AND POLICIES

Where applicable, existing policies identified earlier in this element that are consistent with LAMIRD designations are repeated here for clarity.

GOAL RE 6: Designate limited areas of more intensive rural development for the infill, development or redevelopment of existing commercial, industrial, residential or mixed use areas.

Policy RE 6.1: Any development or redevelopment must be principally designed to serve the existing and projected rural population. This does not include industrial areas or industrial uses within a mixed-use area.

Rationale: Requirements of the Growth Management Act allowing more intense development in rural areas include a provision that these areas serve primarily the existing and projected rural population, generally to ensure rural sprawl does not occur where inappropriate.

Policy RE 6.2: Any development or redevelopment, in terms of building size, scale, use, or intensity, shall be consistent with the character of the existing areas. Development and redevelopment may include changes in use from vacant land or a previously existing use so long as the new use conforms to the intent of this section.

Rationale: Requiring new and/or redevelopment within LAMIRD designations to be consistent with the provisions of this element ensure that the County remains consistent with the requirements of the Growth Management Act with respect to LAMIRD designations.

Policy RE 6.3: Rural development (residential, commercial and industrial) near designated resource lands shall be developed in a manner which minimizes potential conflicts and reduces the conversion of farm and forest land to non-resource uses. Mitigating measures shall be developed to provide an adequate level of protection against potential conflicts. (Copied from above)

Policy RE 6.4: The provision of rural governmental services should be recognized as non-urban levels of services. The rural community should expect rural governmental services including police, fire, roads, and general utilities. (Copied from above)

Policy RE 6.5: Where consistent with State and local requirements, encourage innovative site designs that utilize community water systems. (Copied from above)

Policy RE 6.6: Fire protection standards should be developed and implemented for all commercial, industrial and residential development within rural areas. (Copied from above)

Policy RE 6.7: Densities allowed determine how many people can ultimately reside in the County. Appropriate rural densities and designations should be applied that maintain the rural character, accommodate rural population projections and can be provided with rural services within the constraints of the County Budget and Capital Facility Plan. (Copied from above)

Policy RE 6.8: Where reasonably feasible, require all future Chelan PUD power line extensions to be placed underground in order to maintain the maximum rural feeling and reduce downtime. (Copied from above)

Policy 9: Public facilities and public services may be provided for the development, infill, and redevelopment of existing intensely developed residential, mixed use, shoreline, commercial and industrial areas outside of urban growth areas. Provision of such services shall not be provided in a manner which permits low density sprawl outside of the boundary of the designation area. (Copied from above)

Policy RE 6.10: Additional commercial centers or activities may be considered in existing rural activity centers, villages, hamlets, or crossroad developments in the rural area during the yearly amendment process for the comprehensive plan when consistent with RCW 36.70A.070(5) and the goals and policies of the comprehensive plan. (Copied from above)

GOAL RE 7: Provide regulatory opportunities for remote industrial uses to be located in remote rural areas.

Policy RE 7.1: The siting of industrial uses may be allowed in rural areas when it can be demonstrated that adverse impacts to the rural community can be minimized and that the requirements under RCW 36.70A.365 or RCW 36.70A.070(5) can be met. (Copied from above)

Policy RE 7.2: Development regulations provisions for remote industrial uses shall ensure that public health, safety and welfare are protected. (Copied from above)

Policy RE 7.3: Remote industrial uses shall address potential impacts to surrounding land uses and designated critical areas. (Copied from above)

VI. LAMIRD DESIGNATIONS/SITING CRITERIA:

The following designations apply to the implementation of the Comprehensive Plan through the zoning map. Comprehensive Plan Land Use Designation for the Rural areas are identified and discussed in the Land Use Element. The following purpose and locational guidelines provide a basic understanding of the zoning districts intent and how they relate to the Comprehensive Plan designations, see the Land Use Element.

A. RURAL WATERFRONT (RW):

This designation is considered an implementation of a Type 1 LAMIRD as described above, consistent with the Growth Management Act.

Purpose: This designation will provide the opportunity for the development, redevelopment and infill of existing intensely developed shoreline areas for residential, and water related/water dependant recreational and tourist development consistent with the rural character and rural development provisions outlined in the goals and policies of this comprehensive plan. These areas provide a distinct water related lifestyle. Potential impacts to the surrounding area, critical areas, and water quality shall be addressed. These areas must be clearly identifiable as existing intensely developed rural shorelines; where a logical boundary can be delineated and set by the built environment. Such a boundary shall not permit or encourage a new pattern of sprawling low density or urban type development.

Uses appropriate for these areas include: open space and developed open space; residential; agriculture; and forestry. Additional uses may be considered with supplemental provisions. These provisions shall address performance standards, impacts to the surrounding area, and be consistent with the goals and policies of the comprehensive plan. Such uses may include: intensification of existing development or new development of small scale water related/water dependant recreational or tourist uses, including commercial facilities to serve those recreational or tourist uses, that rely on a rural location or setting but that do not include a new residential component; intensification of development on lots containing existing isolated nonresidential uses; home occupations; bed and breakfasts; and community facilities.

Density: May allow for less than 1 acre per dwelling unit, when consistent with the Health District standards. The provision of necessary public facilities and services shall not permit or encourage low density sprawl or urban type development outside of the designation boundary. Existing urban governmental services in some areas, may allow for higher densities than those with rural governmental services.

Clustering consistent with the underlying densities and the rural character and rural development provisions of the goals and policies of the comprehensive plan may be permitted. Topography, critical areas, other environmental constraints, and compliance with all other applicable development standards shall be considered in the provisions to allow for clustering.

Locational Guidelines:

1. Geographical and Geological Characteristics: Parcels are located on or near shorelines identified by the Chelan County Shoreline Master Program. The area may have moderate soil limitations and may have other limited physical constraints to development.

2. Natural Resources: This designation shall not be applied on resource lands of long term commercial significance.

3. Public Services: Necessary public facilities and public services to serve the development, redevelopment or infill of these areas may be provided. There may be some existing urban governmental services. Rural governmental services are typically available, planned and or funded for.

4. Existing land uses: Seasonal and year-round residences, tourist and recreational activities and other rural development may be present. Predominant parcel sizes are 1 acre or smaller.

B. RURAL RECREATIONAL/RESIDENTIAL (RRR)

This designation is considered an implementation of a Type 1 LAMIRD as described above, consistent with the Growth Management Act.

Purpose: This designation will provide the opportunity for the development, redevelopment and infill of existing intensely developed rural recreational/residential areas for residential, recreational and tourist development consistent with the rural character and rural development provisions outlined in the goals and policies of this comprehensive plan. These areas provide a distinct rural lifestyle closely associated with the many natural amenities found within Chelan County. Potential impacts to the surrounding area, critical areas, and water quality shall be addressed. These areas must be clearly identifiable as existing intensely developed rural recreational development; where a logical boundary can be delineated and set by the built environment. Such a boundary shall not permit or encourage a new pattern of sprawling low density or urban type development.

Uses appropriate for these areas include: open space and developed open space; residential; agriculture; and forestry. Additional uses may be considered with supplemental provisions. These provisions shall address performance standards, impacts to the surrounding area, and be consistent with the goals and policies of the comprehensive plan. Such uses may include: intensification of existing development or new development of small scale recreational or tourist uses, including commercial facilities to serve those recreational or tourist uses, that rely on a rural location or setting but that do not include a new residential component; intensification of development on lots containing existing isolated nonresidential uses; home occupations; bed and breakfasts; and community facilities.

Density: May allow for less than 1 acre per dwelling unit, when consistent with Health District standards. The provision of necessary public facilities and services shall not permit or encourage low-density sprawl or urban type development outside of the designation boundary.

Clustering consistent with the underlying densities and the rural character and rural development provisions of the goals and policies of the comprehensive plan may be permitted. Topography, critical areas, other environmental constraints, and compliance with

all other applicable development standards shall be considered in the provisions to allow for clustering.

Locational Guidelines:

1. Geographical and Geological Characteristics: Developments are closely associated with natural amenities found within Chelan County. The area may have moderate soil limitations and may have other limited physical constraints to development.

2. Natural Resources: This designation shall not be applied on resource lands of long term commercial significance.

3. Public Services: Necessary public facilities and public services to serve the development, redevelopment or infill of these areas may be provided. Rural governmental services are typically available, planned and/or funded for.

4. Existing land uses: Seasonal and year-round residences, tourist and recreational activities and other rural development may be present. Predominant parcel sizes are 1 acre or smaller.

C. RURAL VILLAGE (RV):

This designation is considered an implementation of a Type 1 LAMIRD as described above, consistent with the Growth Management Act.

Purpose: This designation recognizes the existence of intensely developed rural residential developments and communities, with densities less than 2.5 acres per dwelling unit, which typically will not have sewer service. This designation will provide the opportunity for the development, redevelopment and infill of existing intensely developed rural residential areas for residential and other rural development consistent with the rural character and rural development provisions outlined in the goals and policies of this comprehensive plan. Potential impacts to the surrounding area, critical areas, and water quality shall be addressed. These areas must be clearly identifiable as existing intensely developed rural residential development; where a logical boundary can be delineated and set by the built environment. Such a boundary shall not permit or encourage a new pattern of sprawling low density or urban type development.

Uses appropriate for these areas include: developed open space; residential; agriculture; and forestry. Additional uses may be considered with supplemental provisions. These provisions shall address performance standards, impacts to the surrounding area, and be consistent with the goals and policies of the comprehensive plan. Such uses may include: intensification of existing small scale recreational or tourist uses that rely on a rural location or setting but that do not include a new residential component; intensification of development on lots containing existing isolated nonresidential uses; home occupations; bed and breakfasts; and community facilities.

Density: May allow for less than 2.5 acres per dwelling unit. The establishment of densities shall consider pre-existing development patterns, Health District standards, proximity to resource lands, existence of critical areas and the availability of necessary public facilities and services. The provision of necessary public facilities and services shall not permit or encourage low density sprawl or urban type development outside of the designation boundary.

Clustering consistent with the underlying densities and the rural character and rural development provisions of the goals and policies of the comprehensive plan may be permitted. Topography, critical areas, other environmental constraints, and compliance with all other applicable development standards shall be considered in the provisions to allow for clustering.

Locational Guidelines:

1. Geographical and Geological Characteristics: The area may have moderate soil limitations and may have other limited physical constraints to development. The area may be adjacent to a variety of rural development, and areas with varying residential densities. The area may be adjacent to urban growth areas.

2. Natural Resources. The area has low resource management potential. The area may be adjacent to resource lands.

3. Public Services: Sewer service is typically not available. Rural governmental services and infrastructure are typically available, planned and/or funded for. Necessary public facilities and public services to serve the development, redevelopment, or infill of these areas may be provided.

4. Existing Land Uses. Single family residences and other rural development may be present. Predominant parcel sizes are less than 2.5 acres.

E. RURAL COMMERCIAL (RC):

This designation is considered an implementation of a Type 1 LAMIRD as described above, consistent with the Growth Management Act where it is applied to existing mixed use areas. Additionally, this designation is considered an implementation of Type 2 and Type 3 LAMIRDs as described above, consistent with the Growth Management Act where the existing uses consist of only commercial activities, whether general retail or tourist recreational in nature.

Purpose: To provide for a range of commercial uses to meet the needs of local residents, and small scale tourist or recreational uses including commercial facilities to serve those recreational or tourist uses within the rural areas to meet the needs of local residents and visitors. This designation will provide the opportunity for the development, redevelopment and infill of commercial uses in existing rural commercial developments, mixed use areas or intensely developed residential areas consistent with the rural character and rural development provisions outlined in the goals and policies of this comprehensive plan. Potential impacts to the surrounding area, critical areas, and water quality shall be addressed. These areas must be clearly identifiable as existing rural commercial developments, mixed use areas or intensely developed residential developments; where a logical boundary can be delineated and set by the built environment. Such a boundary shall not permit or encourage new rural commercial development outside of these boundaries.

Uses appropriate for these areas include: commercial facilities and services; developed open space; above ground floor residential housing; agriculture; forestry; natural resource support facilities and services, tourist or recreational uses; home occupations; bed and breakfasts; and community facilities.

Locational Guidelines:

1. Geographical and Geological Characteristics: The area may have moderate soil limitations and may have other limited physical constraints to development. The area may be adjacent to a variety of rural development.

2. Natural Resources. These areas have low resource management potential. The area may be adjacent to resource lands.

3. Public Services: Rural governmental services and infrastructure are typically available, planned and/or funded for. Necessary public facilities and public services to serve the development, redevelopment or infill of these areas may be provided.

4. Existing Land Uses. Commercial, or higher intensity residential uses may be present, in addition to other rural development.

F. RURAL INDUSTRIAL (RI):

This designation is considered an implementation of a Type 1 LAMIRD as described above, consistent with the Growth Management Act.

Purpose: To recognize the need for rural industrial and resource based industrial activities within the rural areas. This designation will provide the opportunity for the development, redevelopment and infill of existing rural industrial developments or former industrial sites consistent with the rural character and rural development provisions outlined in the goals and policies of this comprehensive plan. Potential impacts to the surrounding area, critical areas, and water quality shall be addressed. These areas must be clearly identifiable as existing rural industrial developments or former industrial sites; where a logical boundary can be delineated and set by the built environment. Such a boundary shall not permit or encourage new industrial development outside of these boundaries.

Uses appropriate for these areas include: industrial facilities and services; intensification of development on lots containing isolated nonresidential uses; agriculture; forestry; caretaker residence for industrial facilities; and natural resource support facilities and services. Additional uses may be considered with supplemental provisions. These provisions shall address performance standards, impacts to the surrounding area, and be consistent with the goals and policies of the comprehensive plan. Such uses may include: mineral resource activities.

New industrial sites may be designated during yearly comprehensive plan amendments if consistent with criteria and requirements outlined in RCW 36.70A.365 and the goals and policies of this comprehensive plan. Such a new industrial area would be designated as an urban growth area and have the potential to receive urban services.

Locational Guidelines:

1. Geographical and Geological Characteristics: The area may have moderate soil limitations and may have other limited physical constraints to development. The area may be adjacent to a variety of rural development.

2. Natural Resources. Existing rural industrial sites have low resource management potential. The area may be adjacent to resource lands. Future industrial sites may be

located in areas with agricultural or forestry uses if consistent with the criteria outlined in RCW36.70A.365.

3. Public Services: Rural governmental services and infrastructure are typically available, planned and/or funded for. Necessary public facilities and public services to serve the development, redevelopment, or infill of these areas may be provided. Some industrial sites may currently have sewer service. Industrial sites designated pursuant to RCW 36.70A.365, as urban growth areas, would have access to urban services.

4. Existing Land Uses. Industrial developments currently exist or the area may have been utilized in the past for an industrial use. Areas identified as having potential for infill for industrial uses may be currently utilized for a variety of rural development and resource activities. Future industrial sites designated pursuant to RCW 36.70A.365, may presently have a variety of rural development and resource activities.

Housing Element

I. INTRODUCTION

It is becoming more and more difficult for residents of this County to pay for housing. Housing prices in Chelan County have risen dramatically over the last twenty years. In 1988 the average sale price of a home in the Multiple Listing Service area (includes Chelan and Douglas County) was $63,100. In 1993 the average sale price was $109,100. This is an increase of 73% over that 5 year period or an average of 14.5% per year. The average sale price in 1998 was $127,100, an increase of 16.5% over a 5 year period and an increase of 3.3% a year. In 2008, fourth quarter, the average sale price was $240,000 a 84% increase.

Chelan County Multiple Listing Service		
Year	Median Home Prices	Percent Increase
1988	63,100	
1993	109,100	73%
1998	127,100	16%
2003	130,600	3%
2008	240,000	84%

Incomes in Chelan County have not kept pace with rising housing costs. The 1989 median household income for Chelan County was $29,631 and increased to $30,148 in 1992; this is an increase of 2%. The minimum annual income needed to purchase a home with a mortgage of $60,000 is $25,701, compared to $41,052 for a mortgage of $100,000[2]. The median household income for the County in 1997 was $37,162, an increase of 23%. During the next five year increment income increased 12%. This average continued between 2002 and 2007 with an increase of 14%. Median Home Income in 2007 was $47,567.

Chelan County*		
Year	Median Home Income	Percent Increase
1989**	29,631	
1992	30,148	2%
1997	37,162	23%
2002	41,565	12%
2007	47,567	14%

*Data from Community Indicators (www.chelandouglastrends.com); **US Census P107A Median Family Income

In 1993 the County conducted a survey of residents to identify their specific concerns and needs for housing and a variety of other topics. The respondents indicated that they felt there was a great need for more single-family homes (both renter and owner occupied) and more low-income housing.

This Housing Element considers the condition of the existing housing stock in the County and identifies specific housing needs. This plan represents Chelan County's housing policy plan for the next 20 years.

The Washington State Growth Management Act (GMA) requires each county and city participating in the Act to include a Housing Element in their comprehensive land use plan. The Housing Element is described in the Act as follows:

> *A housing element recognizing the vitality and character of established residential neighborhoods that: (a) Includes an inventory and analysis of existing and projected housing needs; (b) includes a statement of goals, policies, and objectives for the preservation, improvement, and development of housing; (c) identifies sufficient land for housing, including, but not limited to, government-assisted housing, housing for low-income families, manufactured housing, multifamily housing, and group homes and foster care facilities; and (d) makes adequate provisions for existing and projected needs of all economic segments of the community. (Chapter 36.70A.070(2) RCW)*

Housing is the fourth goal in the GMA's thirteen goals:

> *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. (Chapter 36.70A.020(4) RCW)*

In addition to the GMA guidelines, Chelan County, in their County-Wide Planning Policies, adopted a number of housing policies that have been incorporated into this element.

II. INTENT

The private sector, which includes developers, builders and lenders, are responsible for the majority of housing development and financing. The GMA as stated above requires that local jurisdictions make "adequate provisions for existing and projected needs of all economic segments of the community". Local jurisdictions must analyze the impact of policies and subsequent development regulations on the cost of developing additional housing. This element gives the County the opportunity to identify and prioritize local housing issues and trends and to develop goals and policies that will be used in the creation of new development regulations.

The goals and policies contained in this Element represent the County's recommendation for the provision and development of housing in the County. The Housing Element establishes the conditions under which the public and private housing industry will operate and establishes policies to meet the County's housing needs and achieve the stated goals. Providing housing for all sectors of the population is essential in order to have a viable community. The statistical information demonstrates the financial difficulty in meeting the housing goals for the County. In response, the Housing Element of the plan has identified a specific goal and policies to guide the County toward solutions for the housing problems. While these goals and policies focus on housing, the comprehensive plan has a variety of other goals that will indirectly affect housing including:

- Managing land use to ensure an adequate supply of land to construct housing, an under-supply will raise prices.
- Strengthening the economy to provide the incomes necessary to pay for rent or qualify for a home loan.
- Streamlining the regulations and procedures to control development costs, where appropriate.
- Encouraging alternative private enterprise solutions to housing such as co-housing, dormitories, hostels, boarding houses, accessory dwelling units and common lot line housing.

Using government intervention to provide subsidized housing alternatives as a last resort when private enterprise cannot or will not provide solutions for a sector of the housing market.

The requirements of the GMA have the potential to significantly impact the housing market by restricting the supply and location of land suitable for development. Therefore, it is essential to plan for creativity in housing types and flexible development regulations to allow

the private sector to address the housing needs to avoid reliance on government intervention to provide housing solutions.

III. Definition of "affordable housing"

The GMA stresses the importance of considering the availability and affordability of housing. Affordability is not specifically defined in the Act. It is the responsibility of the local government to establish the definition of "affordable".

The following statement is the State Department of Trade and Economic Development's (DCTD) interpretation of the Act's concept of "affordable housing" as contained in the document Growth Management Act - Procedural Criteria for Adopting Comprehensive Plans and Development Regulations" (Procedural Criteria) (Chapter 365-195 WAC):

> *Affordable housing. This is the term which applies to the adequacy of housing stocks to fulfill the housing needs of all economic segments of the population. The underlying assumption is that the market place will guarantee adequate housing for those in the upper economic brackets but that some combination of appropriately zoned land, regulatory incentives, financial subsidies, and innovative planning techniques will be necessary to make adequate provisions for the needs of middle and lower income persons. Each jurisdiction should incorporate a regional perspective into the identification of its housing planning area, with the understanding that the population to be planned for is county-wide. All jurisdictions should share in the responsibility for achieving a reasonable and equitable distribution of affordable housing to meet the needs of middle and lower income persons. While government policies and programs alone cannot ensure that everyone is adequately housed, attention should be given to removing regulatory barriers to affordable housing where such action is otherwise consistent with the Act. In the overall implementation of the Act an effort should be made to avoid an escalation of costs which will defeat the achievement of the Act's housing aims.*

The definition of "affordable housing" adopted by the Chelan County Coordinating Committee for use in the Comprehensive Plans is:

> Housing where the occupant pays no more than 30% of their adjusted monthly income for total shelter costs, including rent or mortgage payment, taxes and insurance, and utilities (i.e. water, sewer, garbage and electricity). The adjusted monthly income levels shall be those prepared annually by the US. Department of Housing and Urban Development. The households targeted will be those with incomes at or below 120% of the Chelan County median household income.

Along with the question of "affordability" comes the issue of the availability of housing to "all economic segments" of the population. As mentioned above, the GMA assumes that the market will provide housing for the upper economic brackets. The GMA stresses that communities should be planning to provide housing that is affordable to persons with incomes at or below 120% of the county median. Table 1 below shows the income groupings that are commonly used in discussing housing affordability and the income limits based on the estimated 1998 median household income for Chelan County.

TABLE 1: Economic Groupings by Percentage of County Median Income

Economic Grouping Titles	Percentage of County Median Income	1998 Income Limits Based Upon Median County Income* of $36,900	2008 Income Limits Based on Median County Income* of $57,000
Extremely low income	below 30%	11,070	Less than 17,100

Very low income	31% to 50%	11,071-18,450	17,101-28,500
Low income	51% to 80%	18,451-29,520	28,501-45,600
Moderate income	81% to 95%	29,521-35,055	45,601-54,150
Middle income	96% to 120%	35,056-44,280	54,151-68,400

*HUD estimate

The Procedural Criteria requires that for the purpose of planning for affordable housing jurisdictions should use the income levels prepared annually by the US Department of Housing and Urban Development (HUD). HUD annually prepares these income levels and adjusts them by household size. HUD estimates the 1998 median household income for Chelan County to be $36,900. The HUD table only breaks down very-low income and low-income. In addition to the HUD income limit information, Rural Housing Services (RHS), a part of the Federal Department of Agriculture prepares a similar table where they include moderate income limits also. The moderate income limits are important since the GMA requires that the County plan for housing for households with incomes at or below 120% of the median which includes RHS's "moderate income" grouping. Table 2 below shows the annual income by family size for Chelan County by combining the HUD information and the RHS information.

TABLE 2: HUD Adjusted Income Limits Persons in Household

	Number of Persons in Household 1998							
Income Grouping	1	2	3	4	5	6	7	8
Very Low Income (50%)	13050	14900	16800	18650	20150	21600	23150	24600
Low Income (80%)	20900	23850	26850	29850	32250	34600	37000	39400
	Number of Persons in Household 2007							
Extremely Low (30%)	1140	13000	14650	16250	17550	18850	20150	21450
Very Low (50%)	18950	21650	24350	27050	29200	31400	33550	35700
Low (80%)	30300	34650	38950	43300	46750	50250	53700	57150

Source: HUD Income Limits for Washington State, 10-98; and FmHA Instruction 1944-A-Exhibit C, 4-15-99

IV. Inventory and Analysis

With regards to Chelan County, the percent change in housing units from 1990 to 2000 was 214% (see table 3). The Cashmere CCD had the lowest increase in housing units of 10.3% and the Entiat CCD had the highest increase of 37.6%.

TABLE 3: Change in Housing Units, 1990-2007

Census County Division	1990	2000	2007	Change 1990 -2000
Cashmere CCD	3,730	4,114		10.3%
Chelan CCD	3,069	4,134		34.7%
Entiat CCD	750	1,032		37.6%
Leavenworth/Lake Wenatchee CCD	3,332	4,072		22.2%
Malaga CCD	981	1,323		34.9%
Manson CCD	1,380	1,568		13.6%

Census County Division	1990	2000	2007	Change 1990 -2000
Stehekin CCD	132	166		25.8%
Wenatchee CCD	11,674	1,3994		19.9%
Total: Chelan County	25,048	3,0403	32,386	21.4%

Source: U.S. Census, Chelan County Planning Dept.

A. Housing Unit Type

The profile of housing unit type has changed substantially in most areas of the County. However, in 1980 the detail of information was collected on "year-round" housing units only and in 1990 all housing units (seasonal and year-round) were included.

Types and location of housing units will affect the cost of housing. For this reason, Chelan County provides a summary of manufactured housing. Within the County manufactured homes, including mobile homes, are classified and regulated the same as site built homes (stick built). However, throughout the County cities may have chosen to regulation these housing types differently.

The decade from 1980 to 1990, county-wide, mobile homes increased from 6% of the total housing units to 14%. Mobile homes are increasing in their share of the total housing market. For the Chelan, Manson and Stehekin Census Districts combined, mobile homes make up 18.45% of the total housing units and increased by 26.6%, from 1980 to 1990. The Malaga CCD had the greatest percentage increase of 31%, from 118 to 304 mobile homes. The Stehekin CCD had the lowest percentage increase of mobile homes at 7.6%

In regards to the County from 1990 to 2000, mobile homes accounted for 12.4% of the total housing units. The general distribution of mobile homes from 1990 to 2000 indicates an overall decrease in the number of units throughout the county.

TABLE 4: Mobile Homes

Location	Total HU 2000	1980 (MH)	1990 (MH)	2000 (MH)	% of Total within CCD 2000	% Change 1990-2000
Cashmere CCD	4114	279	723	778	18.9	7.6
Chelan CCD	4134	178	523	680	16.4	30.0
Entiat CCD	1028	72	175	254	24.7	45.1
Leavenworth/Lake Wenatchee CCD	4076	94	471	369	9.1	-21.7
Malaga CCD	1323	118	304	368	27.8	21.1
Manson CCD	1568	103	312	281	17.9	-9.9
Stehekin CCD	170	1	10	5	2.9	-50.0
Wenatchee CCD	13994	n/a	955	1041	7.4	9.0
Total County	30407	n/a	3473	3776		8.7

Source: U.S. Census

TABLE: Rural and Urban Housing

Chelan County	1990 Census	2000 Census
Total	25048	30407
Urban		17174

Chelan County	1990 Census	2000 Census
Inside urbanized areas	0	13260
Inside urban clusters	12213	3914
Rural		13233
Farm	1098	713
Nonfarm	11737	12520

US Census; 1990 table P006; 2000 table H5

B. Tenure

From 1980 to 1990, the percentage of the number of owner-occupied homes versus renter-occupied homes has decreased throughout the County. Overall, in all census divisions, there was a decrease in owner occupied tenure of 5.1%, with an increase of renter occupied housing units of 9.6%. From 1990 to 2000 the number of renter occupied units decreased dramatically. This may correlate to the increased values of homes which may have encouraged property owners to sell homes previously rented.

TABLE 5: Tenure

Region	1980 (%)	1990 (units)	2000 (units)	% Change 1990-2000
Cashmere CCD				
Owner Occupied	69.7	2245	2584	15.1
Renter Occupied	30.3	1120	1240	10.7
Chelan CCD				
Owner Occupied	63.9	1162	1565	34.7
Renter Occupied	36.1	820	898	9.5
Entiat CCD				
Owner Occupied	64.9	366	517	41.3
Renter Occupied	35.1	205	267	30.2
Leavenworth / Lake Wenatchee CCD				
Owner Occupied	75.3	1268	1791	41.2
Renter Occupied	24.7	556	650	16.9
Malaga CCD				
Owner Occupied	77.7	678	931	37.3
Renter Occupied	22.3	230	307	33.5
Manson CCD				
Owner Occupied	63.3	521	744	42.8
Renter Occupied	36.7	327	370	13.1
Stehekin CCD				
Owner Occupied	48.5	13	17	30.8
Renter Occupied	51.5	17	22	29.4
Wenatchee CCD				
Owner Occupied		6531	8029	22.9
Renter Occupied		4586	5089	11.0

Source: U.S. Census

C. Occupancy & Structural Characteristics

The overall rental vacancy rate in 1990 was 8.5% for the County. According to the Real Estate Snapshot prepared by Pacific Appraisal Associates, P.L.L.C. for Chelan and Douglas Counties for June of 1998, there was a vacancy rate for single family dwellings of 9%, multifamily had a 11% vacancy rate and the Wenatchee Valley had an overall vacancy rate of 10%. A 5-10% vacancy rate is considered to be a normal market condition.

Recent data is maintained and available through Community Indicators (www.chelandoughlastrends.org) using Washington Center for Real Estate Research. This data clearly shows a steep decline in the vacancy rate throughout the Chelan Douglas Metropolitan Study Area. This data is consistent with the US Census data above and shows a growing demand on housing.

Chelan-Douglas MSA				
Year	Average Rent-One Bedroom	Average Rent-Two Bedroom	Vacancy Rate-One Bedroom	Vacancy Rate-Two Bedroom
2000	445	546	4.4%	5.0%
2001	456	547	6.7%	6.5%
2002	441	531	5.2%	7.2%
2003	441	537	6.3%	4.5%
2004	475	580	2.7%	6.3%
2005	480	591	3.8%	4.5%
2006	522	643	1.1%	1.8%
2007	559	660	0.6%	1.2%
2008	589	686	1.2%	1.7%

The Census Bureau tracks the age of structures through the year they were built. According to the 1990 Census, in the Chelan CCD 21.2% of the homes were built in 1939 or earlier, in the Manson CCD 10.9%, and in the Stehekin CCD 15%. The percentage of homes constructed in 1939 or earlier in the Entiat CCD were 25.6%, 17% in the Malaga CCD, 37% in the Cashmere CCD, 16% for the Sunnyslope CDP, and 13.8% in the Leavenworth/Lake Wenatchee division.

Seasonal housing units in the County make up 11.1% of the total housing units (1990). In the Chelan CCD 23.7% of the housing units are seasonal, 28.8% in the Manson CCD, and 65.2% in the Stehekin CCD. The percentage of seasonal housing units in both the Entiat and Malaga CCD was 11.1%. The Sunnyslope CDP and Cashmere CCD had much lower rates of seasonal housing at 1% and 2.4% respectively. The Leavenworth/Lake Wenatchee Division had a rate of 40.4%. A high percentage of seasonal housing units makes for a less stable housing base available for year-round residents.

D. Condition of Housing

The 1990 Census provides limited information that can be used to determine the condition of the housing stock in the County. The Census identifies a total percentage of housing that lacks complete plumbing facilities or kitchen facilities. Complete plumbing facilities include hot and cold piped water; a flush toilet; and a bathtub or shower. Complete kitchen facilities include a piped sink, a range, cook top and convection or microwave oven or cook stove, and a refrigerator.

TABLE 6: Condition of Housing Units (in percentages)

Region	1990		2000	
	Lacking Complete Plumbing	Lacking Complete Kitchen Facilities	Lacking Complete Plumbing	Lacking Complete Kitchen Facilities
Cashmere CCD	4.0	2.5	0.9	0.6
Chelan CCD	5.2	1.5	5.0	3.5
Entiat CCD	11.5	9.7	7.4	9.6
Leavenworth/ Lake Wenatchee CCD	10.7	5.3	4.1	2.7
Malaga CCD	1.2	0.9	0.0	0.0
Manson CCD	1.9	0.5	3.4	3.4
Stehekin CCD	10.7	3.4	40.6	26.5
Wenatchee CCD		0.01	1.2	1.6

US Census: 1990 HO42 Kitchen Facilities; 1990 HO64 Plumbing Facilities; 2000 QT-H4 Physical Housing Characteristics

E. Housing Affordability

The Census Bureau tracks housing costs in the form of median monthly amount of rent or mortgage payment plus utility costs (total cost of shelter). This is listed as monthly owner cost and median gross rent. As mentioned above, housing is considered to be "affordable" if less than 30% of the household income is needed to pay shelter costs. Another factor to examine when looking at housing affordability is the median home value and gross rent. The median home value is taken from the owner's estimate of the value of their home. Gross rent is the contract rental amount plus the estimated average monthly cost of utilities.

As noted in the Introduction, the cost of housing has increased substantially between 1988 and 2007. Increases in income have not corresponded, putting an increased demand on affordable housing. In order to address affordability Chelan County Planning Commission has requested the formation of an Affordable Housing Committee. This committee will be formed in 2009 with committee goals and planning taking place in 2010 and beyond.

The County-wide median home value in 1990 was $71,500 and the median gross rent was $343. In 2000 the home value increased to $148,000. A near doubling of median home values throughout the County was the norm, as indicated in the following table. In 1990 the Manson CCD had the highest median home value of $82,900; however, in 2000 Malaga CCD had the highest home value at $177, 700. Home values and rents in the In 1990 and 2000 Entiat CCD had the lowest home value in the County with a median home value of $55,800 and $128,900, respectively.

	1990 Median Household Income	1990 Median Home Value	1990 Median Gross Rent	2000 Median Household Income	2000 Median Home Value	2000 Median Gross Rent
Countywide	24,312	71,500	343	37,316	148,400	535
Cashmere CCD	24,806	69,400	302	40,010	156,000	490
Chelan CCD	21,554	75,400	284	33,550	166,000	489
Entiat CCD	23,031	55,800	226	34,375	128,900	430
Leavenworth	24,741	82,300	378	41,119	167,800	572

	1990 Median Household Income	1990 Median Home Value	1990 Median Gross Rent	2000 Median Household Income	2000 Median Home Value	2000 Median Gross Rent
CCD						
Malaga CCD	31,120	77,800	390	52,049	177,700	710
Manson CCD	24,426	82,900	260	33,517	165,900	511
Stehekin CCD	38,750	71,300	150	36,023	112,500	408
Wenatchee CCD	31,273	70,000	316	36,362	140,200	548

US Census 1990 H023B, H032B and DP-4; US Census 2000 P53, H63, QT-A14

V. Housing needs

A. Priorities

Regulatory policies and programs cannot ensure that everyone has access to affordable, adequate housing. It is the purpose of this section of the Housing Element to indicate community priorities based upon existing distribution patterns, special needs and expressed priorities.

According to the 2000 U.S. Census, the overwhelming majority of housing units in all of the study areas are single family housing units (see Table 7). However, the percentage of single family housing units compared to the combined multi-family and mobile home housing unit percentages vary considerably in each Census County Division (CCD). Aside from the Stehekin CCD, which has 97.1% of its 170 housing units identified as single units, the Leavenworth/Lake Wenatchee CCD has the highest % of single units at 79%. The Entiat and Malaga CCDs have the highest percentage of mobile homes at 27.7% and 27.8%, respectively. Wenatchee CCD has the highest % of 2-9 units at 15%, while the Chelan CCD has the largest percentage of structures with 10+ units at 11.2%.

TABLE 7: Housing Units by Housing Type

Location	1 Unit	Percent	2-9 Units	Percent	10 + Units	Percent	Mobile Homes	Percent	Total Housing Units by Area
Cashmere CCD	2821	68.6%	285	6.9%	186	4.5%	822	20.0%	4114
Chelan CCD	2657	64.3%	476	11.5%	463	11.2%	724	17.5%	4134
Entiat CCD	651	63.3%	28	2.7%	64	6.2%	285	27.7%	1028
Leavenworth/Lake Wenatchee CCD	3219	79.0%	311	7.6%	153	3.8%	393	9.6%	4076
Malaga CCD	918	69.4%	27	2.0%	10	0.8%	368	27.8%	1323
Manson CCD	1137	72.5%	132	8.4%	8	0.5%	291	18.6%	1568
Stehekin CCD	165	97.1%	0	0.0%	0	0.0%	5	2.9%	170
Wenatchee CCD	9466	67.6%	2100	15.0%	1338	9.6%	1090	7.8%	13994
Chelan County Overall	21034	69.2%	3359	11.0%	2036	6.7%	3978	13.1%	30407

Source: 2000 US Census: QT-H4. Physical Housing Characteristics - All Housing Units: Summary File 3 (SF 3) –

The 2000 Census shows the following breakdown of the percentage of total households meeting the criteria for "very low income" to "middle income" groupings (the remaining households have incomes higher than the “middle income” category).

TABLE 8
Percentage of Households by Income Level: “Very Low Income” to “Middle Income”

	Income Levels				
CCD	Percent Very Low Income	Percent Low Income	Percent Moderate Income	Percent Middle Income	Total Percent Low - Middle Groupings
Cashmere CCD	22.4	14.9	7.7	12.1	57.1
Chelan CCD	28.2	16.8	7.8	10.2	63.0
Entiat CCD	27.2	14.0	10.0	9.7	60.9
Leavenworth/Lake Wenatchee CCD	23.3	18.3	5.4	11.1	58.1
Malaga CCD	12.7	11.1	8.2	9.2	41.2
Manson CCD	14.6	19.0	6.4	14.0	54.0
Stehekin CCD	18.0	12.2	7.9	34.1	72.2
Wenatchee CCD	24.7	16.5	6.9	11.1	59.2

Source: QT-P32. Income Distribution in 1999 of Households and Families: 2000 SF 3

The Chelan County median household income in 2000 was $37,316. The “Very Low Income” bracket includes those with incomes at 50% of this County median, the “Low Income” includes those at 51-80% of the median, the “Moderate Income” includes those at 81-120% of the median, and “Middle Income” includes those with incomes at 120%+ of the median. The Chelan CCD had the highest percentage of households considered “Very Low Income” at 28.2%. The Manson CCD had the highest percentage in the low income category at 19%. The Entiat Division had the highest percentage of households in the “Moderate Income” category at 10.0%.

TABLE 9

Additional Need		Greatest Need	
Housing Type	Percent Responding	Housing Type	Percent Responding
Rented Single Family	91%	Low Income	33%
Elderly	90%	Single Family	20%
Low Income	90%	Rented Single Family	12%
Special Needs	83%	Elderly	11%
Single Family	79%	Apartments	9%
Migrant Worker	72%	Migrant Worker	7%

Additional Need		Greatest Need	
Housing Type	Percent Responding	Housing Type	Percent Responding
Duplexes	68%	Special Needs	4%
Apartments	67%	Mobile Homes	2%
Mobile Homes	57%	Duplexes	2%
Condominiums	30%	Condominiums	0%

B. Projected Housing Units

There are 8 CCD's within Chelan County. Table 10 illustrates the number of housing units projected within each CCD. The projection is derived by dividing the projected new population for each CCD by the average persons per household in that CCD. This housing unit projection would be accurate if these census divisions were to continue to grow at rates similar to the mean growth rates from 1970 to 2000.

TABLE 10 Census County Division Housing Unit Projection

Location	2000 Total Population Count	2030 Total Population Projection	Projected New Residents	2000 Avg Persons Per Household	Projected New Housing Units
Cashmere CCD	10,824	17,092	6,806	2.79	2,439
Chelan CCD	6,222	9,579	3,814	2.48	1,538
Entiat CCD	2,130	3,117	1,241	2.71	458
Leavenworth/Lake Wenatchee CCD	5,902	8,453	3,366	2.41	1,397
Malaga CCD	3,506	4,760	1,896	2.83	670
Manson CCD	3,248	4,578	1,823	2.87	635
Stehekin CCD	106	218	87	2.51	35
Wenatchee CCD	34,678	54,061	21,527	2.59	8,312
Chelan County TOTALS	66,616	101,859	40,561*	n/a	13,476

Source: Chelan County Comprehensive Plan Land Use Element; *totals are consistent with the Land Use Element but reflect the US Census starting date of 2000 rather than the estimated OFM date of 2008. Both, the Land Use and Housing elements are based on the 2008 OFM High Series Population Project of 107,177 by the year 2030.

Under the provisions of the Growth Management Act, the County and cities have reviewed population projections by the Washington State Office of Financial Management and in 2002 agreed to allocate the following splits between rural and urban areas within the County, see Table 5 of the Land Use Element.

With the adoption of urban growth areas, and the designation of rural and resource lands, historic growth rates within the CCDs are intended to shift, with the majority of growth being accommodated by those areas which have adequate facilities and services to accommodate the projected growth. In reviewing the population projection allocation agreed to by the County and cities, a rough estimate of projected housing needs can be determined for each UGA by dividing the projected new population for that UGA by the average persons per household, as shown for the CCD, as illustrated in Table 11. For the Rural and Resource areas, the average persons per household number used is the overall Chelan County number, which is 2.62 persons per household.

TABLE 11
Projected Housing Units Needed to the Year 2025 – Urban Growth Areas

Urban Growth Area	Projected New Residents	2000 Avg. Persons Per Household	Projected New Housing Units Needed
Cashmere Urban Growth Area	3666	2.79	1314
Chelan Urban Growth Area	2675	2.48	1079
Entiat Urban Growth Area	1009	2.71	372
Leavenworth Urban Growth Area	2639	2.41	1095
Malaga LAMIRD		2.62	
Manson Urban Growth Area	1621	2.87	565
Monitor LAMIRD		2.62	
Peshastin Urban Growth Area		2.62	
Stehekin		2.62	
Wenatchee Urban Growth Area	16945	2.59	6542

Source: Chelan County Land Use Element and Comprehensive Plan

VI. CONCLUSIONS

Chelan County is faced with the challenge of rising housing costs and incomes that have not kept up with those costs. In response to these factors, there has been an increase in the percentage share of manufactured housing units as a component of total housing units; a decrease in the number of owner occupied homes; and a significant increase in renter occupied housing units. Given these trends and the present and future needs for housing to accommodate population growth, an adequate land supply and strategies to meet present and future needs must be identified.

In response to the current and future housing needs in the County, the County has coordinated with the cities to ensure that urban growth areas are adequately sized to accommodate the majority of population growth and housing demands in the County. Urban designations have been established which accommodate a variety of urban densities and housing types. In addition, rural and resource land use designations accommodate a variety of residential densities and housing types consistent with the Growth Management Act.

The land use designations within urban growth areas and rural and resource land designations have been designed to accommodate a variety of housing types and densities to meet the projected needs of all economic segments of the County. The goals and policies of the Housing Element and the Residential Sub-Element of the Land Use Element, provide a strategy for the County to follow to provide for the existing and projected housing needs of the County. Effective implementation regulations, monitoring, and coordination with affordable housing efforts are necessary to ensure that affordable housing can be achieved for Chelan County.

VII. GOALS AND POLICIES

Goal H 1: Encourage the availability of affordable housing to all economic segments of the population of the county, promote a variety of residential densities, and housing types, and encourage the appropriate preservation of existing housing stock.

Rationale: Affordable housing opportunities should be accessible to all residents.

Policy H 1.1: Encourage where appropriate, regeneration of existing housing inventories with methods such as:

a. Permitting accessory housing or the division of existing structures in single family neighborhoods.
b. Consider implementing methods of protecting the inventory of manufactured home parks and a provision of siting manufactured homes on single family lots.
c. Participating in or sponsoring housing rehabilitation programs offered by the state and federal government.

Rationale: Incentives to renovate existing housing are needed to help provide a variety of residential housing types that are available to all segments of the population.

Policy H 1.2: Provide an adequate supply of appropriately zoned land in the County to accommodate a variety of future housing needs.

Rationale: An adequate supply of appropriately zoned land will ensure that the GMA plan does not artificially create inflation in housing prices by restricting competition in the land market.

Policy H 1.3: Encourage the supply of housing that meets the needs of the elderly, physically challenged, mentally impaired, and special needs segments of the population, i.e., congregate care facilities.

Rationale: The county-wide survey indicated that there was a need for these types of housing.

Policy H 1.4: Consider exemption from impact fees for projects which enhance or provide lower cost or specialty housing types such as congregate care facilities.

Rationale: The development and requirement of impact fees for development are an effective way to acquire the capital needed for mitigating impacts to schools, water systems, streets and other public facilities and services. Permitting specific exemptions from impact fees to encourage housing for low income households is an effective incentive tool which can be used to help provide affordable housing.

Policy H 1.5: Where appropriate provide innovative regulatory strategies which can create incentives for developers to provide housing affordable to low and moderate income households.

Rationale: This can be accomplished through the use of innovative techniques including but not limited to: density bonuses, performance zoning, zero lot line development, and cluster subdivisions. Incentives may help convince developers that construction of low and moderate income housing should be considered.

Policy H 1.6: Communities within the County should provide a fair share of affordable housing to low and moderate income households by promoting a balanced mix of diverse housing types.

Rationale: All communities have a need to provide for their share of low and moderate income housing for residents of the County.

Policy H 1.7: Where appropriate, provide for higher density residential housing developments within existing residential communities and urban growth areas where adequate infrastructure and services can be provided.

Rationale: Higher density residential housing developments should be encouraged within existing residential communities and urban growth areas to reduce the costs of housing.

Policy H 1.8: Encourage the construction of year-round and seasonal agricultural worker housing units. Consider the reduction of site development and fire protection standards for temporary housing units for migrant workers, where permitted by State agencies.

Rationale: This will assist the agricultural industry to remain economically viable, reduces transportation needs, and provides adequate housing for agricultural workers.

Policy H 1.9: Chelan County should support the existing public housing agency and/or the development of a county-wide public housing authority with a broad base of public financial support from local jurisdictions.

Rationale: A county-wide housing authority could provide a coordinated county-wide effort for development of low and moderate income housing.

Policy H 1.10: Public entities own undeveloped land in various quantities. The County should encourage the assembling of publicly owned parcels suitable for affordable housing development. Such parcels could then be sold to a public housing agency, at less than market rates, for the development of low income housing.

Rationale: Some parcels that are owned by public entities may no longer be considered adequate for development of capital facilities. These parcels should be considered for sale or exchange.

Policy H 1.11: Chelan County should consider actively targeting potential areas for housing redevelopment, rehabilitation and revitalization.

Rationale: Twenty-three percent of the housing units in Chelan County were built in 1939 or earlier. The preservation of these older units is important for providing affordable housing. The County may wish to participate in federally funded rehabilitation programs.

Policy H 1.12: Chelan County and local jurisdictions should consider transportation systems (existing and projected) in the location and redevelopment of housing.

Rationale: One of the major costs to development is the provision of access. Costs may be reduced if standards are set up which match the developments needs to public and emergency access needs.

Policy H 1.12: Chelan County and local jurisdictions should consider transportation systems (existing and projected) in the location and redevelopment of housing.

Rationale: One of the major costs to development is the provision of access. Costs may be reduced if standards are set up which match the developments needs to public and emergency access needs.

CAPITAL FACILITIES ELEMENT

I. INTRODUCTION

Local governments planning under the Growth Management Act (GMA) must include a Capital Facilities Plan Element in the comprehensive plan. Each comprehensive plan shall include: (a) an inventory of existing capital facilities owned by public entities, showing the locations and capacities of the capital facilities; (b) a forecast of the future needs for such capital facilities; (c) the proposed locations and capacities of expanded or new capital facilities; (d) at least a six year plan that will finance such capital facilities within projected funding capacities and clearly identifies sources of public money for such purposes; and (e) a requirement to reassess the land use element if probable funding falls short of meeting needs and to ensure that the land use element, capital facilities plan element, and financing plan within the capital facilities plan element are coordinated and consistent.

Capital facilities are services and facilities that may include water systems, sanitary sewer systems, storm-water facilities, schools, parks and recreational facilities, law enforcement and fire protection facilities. Capital facilities play a vital role in how the County grows, the quality of life, and the stability of the local economy. The primary driver for planning and development of public facilities is the growth projected for the County. Public facilities should be planned to support the projected growth and distribution of land uses. Public facilities in the County's urban growth areas should be provided at a level that can support urban densities and encourage urban in-fill. Public facilities in rural areas should be provided at levels reflecting the reduced demands and higher costs of serving these lower density, more dispersed patterns of development.

The Capital Facilities Plan Element reflects requirements and direction from the Growth Management Act, the Procedural Criteria as established by the Washington Administrative Code and the County-Wide Planning Policies. This element estimates capital facility needs for the next 20 years based on the County's selected levels of service standards, and the growth, densities and distribution of land uses anticipated in the Land Use and Rural elements of this plan. Financing approaches to fund these capital facilities must also be identified. The Capital Facilities Plan Element will guide decision making to achieve the County goals for capital facilities planning.

The Capital Facilities Plan Element promotes efficiency by requiring the prioritization of capital improvements for a longer period of time than the single budget year. In addition, the identification of adequate funding sources results in the prioritization of needs.

II. LEVEL OF SERVICE STANDARDS

During the preparation of this element of the comprehensive plan many agencies were contacted to provide information relative to capital facilities planning. The GMA requires that levels of service be established for capital facilities. Levels of service (LOS) are quantifiable measures of the capacity or other service thresholds that are to be provided in the County.

The GMA indicates that public facilities needed to support a development should be available concurrent (at the same time as) with the impacts of the development. The intent of this concurrency requirement is that no development or permit should be approved if it would result in a reduction in the LOS below the standards adopted by the County. This concurrency test must be met for transportation facilities in order for development to proceed. This test is encouraged but not expressly required for other types of public facilities. Minimum standards for levels of service for capital facilities provided by public entities are as follows:

RECOMMENDED LEVELS OF SERVICE STANDARDS

Water
Proof of water availability in conformance with standards provided by The Washington State Department of Health and Chelan-Douglas Health District.

Sanitary Sewer Systems
Treatment capacity shall conform to standards set by the Washington State Department of Health. Treatment capacity must be adequate to treat peak flows.
Collection systems must be adequate to accommodate 2.5 times the peak flow volume.

In the rural areas on-site sewage disposal will be utilized in conformance with the standards provided by The Washington State Department of Health and the Chelan-Douglas Health District. Limited sewer service to mitigate an existing health problem or protect surface water quality in areas of existing development may be allowed. Providing limited sewer service for the infill, development or redevelopment of existing intensive areas of rural development may also be allowed in conformance to the provisions outlined in the Growth Management Act.

Stormwater Systems
Stormwater from new development must be controlled so as not to contribute additional off site flows that exceed predevelopment flow rates.

Schools
The standard for schools is the current State standard for funding as determined by the State Superintendent for Public Instruction.

Parks and Recreation Facilities
There currently is no minimum level of service standard established for parks in Chelan County.

Fire Protection
The standard for fire protection is to be in conformance with the current Uniform Fire Code standards or alternatives as approved by the Chelan County Fire Marshal.

Law Enforcement
The standard for law enforcement is to answer calls for assistance within a reasonable time consistent with the nature of the call.

Roads
For road level of service standards see the transportation element of this plan.

III. INVENTORY AND PLANNED IMPROVEMENTS

The following discussion generally describes capital facilities that are used in providing for public services within Chelan County. During the preparation of this element of the plan, many agencies were contacted to provide information relative to capital facilities planning. Many of the agencies providing services or facilities have prepared comprehensive plans that will be adopted by reference and will be available for review at the specific agency or facility and at the Chelan County Department of Building/Fire Safety and Planning office. In some cases, plans are being prepared by the service agency and are not yet available.

Water systems
Domestic water in Chelan County is provided through several hundred private and public sources. A “public water system” means any system, excluding a system serving only one single-family residence and a system with four or fewer connections all of which serve residences on the same farm, providing piped water for human consumption, including collection, treatment, storage, or distribution facilities used primarily in connection with such system (WAC 246-291-010). The Chelan-Douglas Health District classifies a “Group A” system as serving 15 or more connections, regardless of the number of people, or a transient business with 25 or more customers per day. A “Group B” system serves less than 15 connections. A 2 party system is a public system but is exempt from the requirements for a “Group B” water system. The larger public water systems operated by public entities include the following:

Chelan County Public Utility District (PUD)
In 2001 the Chelan County PUD completed a Comprehensive Water Utility Plan. The Wastewater Comprehensive Utility Plan was completed in 1994. Locations, capacities, deficiencies and proposed improvements of water/wastewater system components are identified. For inventory purposes this plan is referenced for this comprehensive plan.

Chelan County PUD has developed a satellite management (SMA) program to assist utilities with their technical and administrative tasks, minimize extended water outages and other issues associated with water and wastewater systems. The SMA provides water and wastewater utilities with an avenue to receive assistance for their utility regulations, operation and maintenance needs and provide a variety of other functions. The PUD has signed a Memorandum of Understanding with Chelan County to provide satellite system management services. PUD water systems are included in the following:

Wenatchee Regional Water System
The primary source for the Wenatchee area is a high yield groundwater aquifer. In 1979 the Chelan County PUD entered into a contract with the City of Wenatchee for joint development of a Regional Water Supply System utilizing the groundwater aquifer adjacent to Rocky Reach Dam as a source of water. This new system was completed and placed into operation in 1983. East Wenatchee Water District was added as a partner to Regional Water Supply System in 2001. The City of Wenatchee operates and maintains the regional wells and water mains.

The system includes four wells capable of producing up to 20 million gallons per day (MGD) and approximately 10 miles of 30-inch diameter pipe delivering water from the

Rocky Reach aquifer. Water is introduced into the District's system at three metering points: Lincoln Rock State Park, Olds Station and Hawley Street. The District's five wells, previously used as the primary source of water, are now used as a standby supply system for emergency backup:

The regional water system services commercial, industrial and residential land uses. There are currently approximately 4200 connections on the system. Approximately 6000 connections are projected through the year 2020. The District, in conjunction with the City of Wenatchee and Easy Wenatchee Water District, are entitled to receive delivery of up to 36 (MGD) from the Regional System. Peak demand for the Wenatchee area through the 2020 Water Plan horizon is 6.2 MGD.

The PUD's portion of the water system serves Sunnyslope, Olds Station, and the outer western and southern boundaries of the greater Wenatchee area. The system was extended to the Wenatchee Heights area in the 1970's and is available along Squilchuck Road up to the Forest Ridge development. On the north end of Wenatchee, service was extended to the Sleepy Hollow area in 1997. Several reservoirs, booster pumps, and water mains are currently being installed to upgrade the Sunnyslope area.

Chelan County PUD - Chelan Falls Water System

The Chelan Falls water system is located along the Columbia River, southeast of the City of Chelan in the southwest portion of Township 27 N. and Range 23 E. The system is located primarily along the Columbia River. In 1987, the PUD assumed maintenance and operation of the system, which is owned by the Chelan Falls Water District. Two wells, a pump station, a storage tank, and approximately 15,000 lineal feet of 6-inch diameter distribution mains serve approximately 120 connections. The two wells, named No. 1 and No. 2 serve the Chelan Falls water system. Located north of the distribution system, the wells are connected in series to the reservoir by a 6-inch PVC line.

Water rights for the Chelan Falls water system are covered by Certificate G4-27862. The PUD is authorized to withdraw 1,350 gallons per minute at any given time, not to exceed a total yearly withdrawal of 300-acre feet (97.8 million gallons per year). Current pumping records indicate that approximately 36.2 million gallons of water per year are being pumped at Wells No. 1 and No. 2. This amount is only about 37 percent of the total water right for the system. Clearly, adequate water rights exist to meet the needs of the Chelan Falls system through 2020.

Chelan County PUD - Chelan Ridge Water System

The Chelan Ridge Water System is located on the south shore of Lake Chelan near the intersection of Navarre Coulee Road and South Lakeshore Road. The system consists of a water treatment plant, a 100,000 gallon reservoir and distribution system. There are approximately 20 service connections plus the State Park.

The system has a capacity of 90 E.R.U.s (equivalent residential units) with 30 of these allocated to the Lake Chelan State Park. The estimated future demand for the system is 90 E.R.U connections.

Chelan County PUD - Olalla Canyon Water System

The Olalla Canyon water system is located in Olalla Canyon just west of the City of Cashmere and North of U.S. Highway 2. The system consists of a well, 100,000-gallon reservoir and distribution system.

The system currently has 30 connections and is limited to this number due to water right restrictions. There are no plans for additional users on this system. Any future expansion of this system to accommodate additional users would require acquisition of additional water rights.

Chelan County PUD - Dryden Water System
The Dryden water system is located along the Wenatchee River in Dryden. The topography of the system does not exhibit tremendous changes in elevation over short runs. The system is supplied by two submersible pumps installed in wells that are about 150 feet from the Wenatchee River, near the State highway bridge. The system is currently, operating well below the established water right of seventy four-acre feet water per year. A single 100,000-gallon capacity reservoir serves the water system.

The distribution system at Dryden consists of approximately 7,200 lineal feet of 6 inch and 8 inch mains. The service area map and detailed system description are located in the Chelan County PUD No. 1 Water and Wastewater Utility Plan, Volume No. 2. Currently, there are 61 connections on the system. It is projected that there will be 82 connections by the year 2020.

Lake Chelan Reclamation District Water System
The domestic water system for the community of Manson was purchased by the Lake Chelan Reclamation District (LCRD) in February of 1922. The system has two intakes in Lake Chelan, one raw water reservoir, a Water Treatment Plant, two finished water reservoirs and over 47 miles of distribution system. The system serves approximately 1350 connections and a peak tourist population of 5,500 in the summer months. Connections are projected at 2,549 in the year 2025 with an estimated peak tourist population served of approximately 8,500.

The area served by the LCRD domestic water system is a mixture of commercial agriculture, rural residential and urban residential and commercial land uses. Agricultural and rural residential usage is the dominant land use while the remaining uses are located within the Manson urban growth area.

The LCRD has an approved Domestic Comprehensive Plan for the system, dated January 2000, that includes a description, analysis and proposed improvements to the system, and is adopted by reference as part of this comprehensive plan. This LCRD Plan was designed to be in concurrence with the Chelan County Comprehensive Plan.

Malaga Water District
The Malaga Water District service includes the Malaga and Stemilt area. There are several small water systems within its boundaries, the largest being the Three lakes Water District and Stemilt and the Stemilt Irrigation District Domestic system.

The system consists of 2 wells, 3 booster stations,,6 reservoirs and approximately 16 miles of distribution line located along the Malaga-Alcoa Highway, West Malaga Rd., Joe Miller Rd., Hamlin Rd. and Crown Ln. with a spur to the Stemilt Hill Rd. at the Stemilt Growers warehouse.

There are currently 310 connections on the system. The system capacity is 700 to 1,000 connections. The future projected demand for the system is 1200 connections

through the year 2014. Up to thirteen miles of additional water lines are needed for future projected demand.

The District is working on updating the Malaga Water District 1994 Comprehensive Plan, prepared by Forsgren and Associates. The Malaga Water District Plan is adopted by reference as part of this comprehensive plan. The draft 2002 plan is currently being reviewed by the Department of Health.

Three Lakes Water District
The Three Lakes Water District wells are located on Tract B of the Three Lakes Subdivision with a nearby reservoir. The system includes two wells with a looped distribution system and a 100,000-gallon concrete reservoir.
There are currently 240 connections on this system, including potable water to the Three Lakes Golf Course and one additional connection outside of the subdivision. The system capacity is 280 connections. Eventual possible build-out for the Three Lakes Subdivision would include a total of 333 connections. To serve this demand, more reservoir storage capacity and additional water permitting would be required through the Washington State Department of Ecology. Permits were applied for in 1991 and 1992 and are still pending.

City of Chelan Water System
The City of Chelan operates a water filtration plant, and a water distribution system serving customers inside and outside of the city limits. The water filtration plant became operational in 1999 and brought the City's water supply into compliance with state and federal requirements. In general , the water system supplies potable water to the customers within or abutting the city limits. The water system also supplies potable water to the Chelan River Irrigation District and to the Isenhart Irrigation District. Per the City's August 2001 Water System Plan, Average Daily Demand (ADD), and Maximum Daily Demand (MDD) were forecast as follows, including the Chelan River Irrigation District and Isenhart Irrigation District:

	ERU	ADD(gpd)	MDD
Present	2895	1339k	3883k
2021 Est.	5664	2622k	7640k

Present capacity of the Supply source and WTP is 6,700,000 gpd. Planned enhancements to the system within the 20 year Planning period will raise this capacity to 10,000,000 gpd.

City of Leavenworth Water System
The City of Leavenworth addressed the City Water System in its comprehensive plan amended and adopted August 13th, 2002 and is adopted by reference for this comprehensive plan. Action Item #8 within the Capital Facilities Element of the Leavenworth Comprehensive Plan disallows, with some exceptions, additional connections to the City of Leavenworth Water System outside of the urban growth area or the incorporated city limits. Currently there are 339 water connections to this system outside of the urban growth area. These connections are along the Icicle Road and in the East Leavenworth area.

The City of Leavenworth water system consists of City owned and operated water supply, storage, treatment, transmission and distribution facilities. The water supply is from both surface and ground water sources. The present system serves 1223 customers with seventy-five per cent inside of the City limits, evenly divided between residential and commercial demand. The total water service population is 3055. The City of Leavenworth has updated the Comprehensive Water Plan, produced by Verela and Associates, scheduled for adoption late in 2002. Locations, capacities, deficiencies and proposed improvements of system components are identified in this plan.

The following summary inventory describes the present Leavenworth water system.

Description	Size, Capacity or Length
Supply: Icicle Creek WTP	2.9 MGD
Well No. 1	1.8 MGD
Well No. 2	1.0 MGD
Storage: Concrete Lined Reservoir	700,000 Gallons
Transmission:	
Icicle Creek 16” & 12”	4.5 Miles
East Leavenworth Rd. 10”	3.0 Miles
Distribution:	
4” - 10” DI, STL	8.8 Miles
Services	1,100

Currently the City of Leavenworth has surface water rights to 3.02 cubic feet per second (CFS) from Icicle and Wenatchee Rivers (1.96 mgd), and groundwater rights to 1,000 GPM (gallons per minute) or 1.44 MGD. Total Municipal Water Rights allow for 2.359 gpm (3.4 mgd). Interruptible Water Rights allow for 2 mgd. Present maximum total system water demand is approximately 1.84 MGD (1.278 GPM on a 24-hour average basis).

Future Needs: The Leavenworth Urban Growth Area share of the Office of Financial Management (OFM) projected population growth is approximately 2,900 people through 2025. The City has adequate water rights to serve this population, however, there is a deficiency in flow due to substandard pipe size. The 4-inch water lines need upgraded to 8-inch water lines to increase flow. The Icicle Road/SR2 water main needs to be upgraded from a 12-inch to a 16-inch ductile iron (DI) pipe. The East Leavenworth water main needs to be upgraded from a 10-inch to a 12-inch line. A 12-inch water transmission line, a 12-inch main, and a reservoir in the Ski Hill area will need to be developed to serve projected urban growth. Details of water system improvements are located in Appendix C of the Leavenworth Comprehensive Plan.

Peshastin Water District

The Peshastin Water District owns and operates the water system that serves the community of Peshastin, located along the north side of the Wenatchee River three miles east of Leavenworth.

The water source for the system includes four wells. The system includes two, 250,000-gallon reservoirs storage tanks located on the District's property northeast of Peshastin. The water system is operated by gravity feed. The system includes four miles of pipe of various sizes, from 1 to 12 inches.

There are 221 service connections. The system is approved for 430 connections, which is sufficient to serve the projected future demand of 241 connections through the year 2018.

The District is currently in the process of an extensive water system replacement project. The project includes replacement of all pipes, well house improvements, meter installation on all connections, cistern replacement, rebuilding one well house, and construction of a new well/reservoir control system. This project will be funded by Rural Development, Community Investment Funds, Public Works Trust Fund, and local matching funds. The district has approved the preliminary engineering report and the project is expected to go to bid during the winter months with construction to begin in spring of 2003 with completion by late summer of 2003.

There is possible service extension in the "old mill" property. Water rights have been settled and the District owns water rights to that property. The property is in the process of being sold to the Port of Chelan County for possible development of an Industrial Park. Possible connections are estimated at 75.

The Water System Plan for Peshastin Water District was prepared by Chelan Count PUD and has been approved by the State Department of Health. This plan is adopted by reference for this comprehensive plan.

Alpine Water District

The Alpine Water District was formed in late 1999. The customers purchased the water system which was built by the Chelan County Public Utility District (PUD). Rh2 did a feasibility study for the PUD to address an expanded system that would serve all of the populated area around Lake Wenatchee.

The system includes a source well and pump near the east end of Lake Wenatchee. Six inch mains extend 13,800 feet from the source along Chiwawa Loop Road to the 100,000 gallon storage tank located near Alpine Tracts, and 5,800 feet fro the entrance to the State park along the Lake Wenatchee Highway and the North Shore Road.

The system serves Alpine Tracts, the YMCA camp, Midway Village residential, and Lake Wenatchee State Park. There are currently 58 customers connected to the system. The District is pursuing additional connections. The reservoir is capable of handling 50 more customers.

Other major public water systems in the Plain/Lake Wenatchee area are currently owned and operated by private user associations or individuals. Public water systems actually owned and operated by public agencies include forest service facilities and state campgrounds, and WSDOT facilities.
The following table shows other larger existing public water systems in the Plain/Lake Wenatchee Study Area..

Water System	TYPE	CONNECTIONS	SOURCE
Chiwawa Comm. Assn.	A COMM	320	4 Wells
Ponderosa Comm. Club Inc.	A COMM	385	Well
Thousand Trails Water System	A TNC	271	Surface Water

Little Butte Water System
The Little Butte Water System is owned and operated by the Little Butte property Owner's Association. With water rights to pump from Lake Chelan and serving 46 lots on approximately 906 acres located approximately one mile up Chelan Butte Lookout Rd. the system is composed of a lakeside pump house, filtration plant, a 96,000 gallon reservoir and distribution lines.

There are currently 30 authorized hookups. Future demand is anticipated to total 60 hookups, accomplished in two phases with 16 more hookups when authority is granted from the state to the original platted lots (phase I) and 14 additional hookups (phase II) by the year 2017. This is anticipated to include a new reservoir to serve properties at higher elevations.

There are currently 30 authorized hookups. Future demand is anticipated to total 60 hookups, accomplished in two phases with 16 more hookups when authority is granted from the state to the original platted lots (phase I) and 14 additional hookups (phase II) by the year 2017. This is anticipated to include a new reservoir to serve properties at higher elevations.

Lake Wenatchee Water District
The Lake Wenatchee Water District was created by Chelan County Commissioners in May 2006, by Resolution 2006-65, as a result of a public referendum in favor of forming a public water district. The district was established to integrate five private community associations and individual systems. While all five systems are meeting minimum Department of Health standards for either Group A or Group B systems, individual components within each of the water systems are reaching the end of their useful life and will need to be replaced in the near future. Chelan County adopts by this reference the Lake Wenatchee Water District Plan, dated February 2011.

IRRIGATION SYSTEMS
In addition to some irrigation usage of domestic water, irrigation water in Chelan County is provided through several sources. Irrigation purveyors in Chelan County are included below.

Pioneer Water Users Association
The Pioneer irrigation system supplies water for irrigation use only to agricultural and residential customers. The system serves an area between monitor and the City of Wenatchee including some area inside the Wenatchee City Limits. The system's capacity is 15 cubic feet per second (CFS). The system serves 96 customers with no future expansions anticipated for the system. Planned Improvements include ongoing maintenance.

Icicle Irrigation District
The Icicle Irrigation District provides irrigation water only. The intake for the system is located on Icicle Creek five miles up Icicle Canyon Road from Highway 2 and serves from there to Monitor along both sides of Highway 97. The system serves approximately 425 customers with approximately 800 parcels of land. The capacity of the system is 117.71 CFS set by available water rights. No expansion of the system is anticipated; however habitat improvements and ongoing maintenance are planned for the system.

Lake Chelan Reclamation District
The Lake Chelan Reclamation District (LCRD) was organized on May 8, 1920 under Title 87 RCW and provides irrigation water to 6,600 acres of land along the north shore of Lake Chelan from Green's Landing down-lake to just east of the City of Chelan.

The LCRD system provides pressurized water to 660 connections along 73 miles of distribution system with an instantaneous capacity of 106.7 cfs and an annual right of withdrawal of 22,388 acre-feet during the months of March to October each year. System expansions are limited by contract within the LCRD boundary and the system is presently at its acreage capacity. Planned improvements are operations and maintenance oriented.

Peshastin Irrigation District
The Peshastin Irrigation District system serves irrigation use only. The intake for the system is located three miles up Peshastin Creek from the junction of Highway 97 and Highway 2, serving from that point to Pioneer Dr. at Cashmere.

There are approximately 400 customers on the Peshastin Irrigation District system with approximately 800 parcels of land. The capacity of the system is set by water rights at 42 CFS. No expansion to the system in anticipated. Planned improvements to the system include ongoing maintenance.

Spring Hill Irrigation Company
The Springhill Irrigation Co. is operated and managed by the Wenatchee Heights Recreation District. The capacity of the system is 300-acre feet (AF) annually set by existing water rights, plus 500 miner's inches of 5th water right from the Stemilt Creek watershed

Recent improvements to the system included 100-year flood condition standard improvements and ongoing maintenance work. During dry years there is a need for additional water in this area.

Wenatchee Heights Water Company
The Wenatchee Heights Water Company is operated and managed by the Wenatchee Heights Reclamation District. It serves approximate 15 customers. The capacity of the system is 600 acre feet (AF) annually. Currently there are no plans for expansion of the system.

Wenatchee Heights Reclamation District
The Wenatchee Heights Reclamation District lies approximately three air miles south of Wenatchee, on a plateau about two thousand feet above Wenatchee, in Sections 34,35,25,and 26, Township 22 N., Range 20 E. The system serves 52 customers within

the district and approximately 15 customers outside of the district boundaries. Approximately 750 acres of land are served by the District.

The capacity of the Wenatchee Heights Reclamation District system is 1500 acre feet annually. In 1994 a request to expand the system was forwarded to the Washington State Department of Ecology. This request is still pending.

Wenatchee Reclamation District
The Wenatchee Reclamation District provides irrigation water diverted from the Wenatchee River at the Dryden Dam. The Distribution system includes a system of canals, flumes and tunnels going from the dam site through Sunnyslope and to the Columbia Lateral, and through the City of Wenatchee in the Highline Canal. The system crosses the Columbia River at the footbridge and proceeds on to East Wenatchee to the top of Ninth Street, with distribution north to 38th street and distribution south to Rock Island.

The Dryden Dam diversion area includes the first 11,500 feet of the distribution system that is operated and maintained by the Chelan County Public Utility District. The Wenatchee Reclamation District's operations begin near Williams Canyon. With a capacity set by water rights limits of 200 CFS the system serves over 9,000 customers and approximately 12,500 acres in Chelan and Douglas Counties.

In 1988 Kyle Rumble completed a report outlining improvements to the system, which have since been completed. There are no anticipated expansions to the system or customer base. Planned Improvements include normal ongoing maintenance.

Greater Wenatchee Irrigation District
The Greater Wenatchee Irrigation District serves 54 Chelan County customers in the Howard Flats area near the Chelan Municipal Airport. The capacity of the system is 5,000 AF annually. There are no plans for expansion of the system. A system plan that was completed in 1986, by CH2M Hill, outlined needed system improvements. Improvements were completed in 1989. Ongoing improvements include maintenance and improvements in telemetry.

Cascade Orchard Irrigation Company, Inc.
The Cascade Orchard Irrigation Company serves approximately200 customers and 500 acres along the Icicle Valley up to the Fish Hatchery Canal at the intersection with the Wenatchee River. Any expansion to the system would be internal, limited by the boundaries of the plat. An engineering study was begun in 1999 by the firm Geomax, located in Spokane WA. The report recommended continuing upgrading the main canal and to keep it open. It serves as a water barrier for flood control, controlling seepage from uphill). It also provides water for firefighting, recharges wells, and provides a barrier for rattle snakes. Conservation methods have reduced demand and will enable the system to meet foreseeable demand from growth.

Entiat Irrigation District
The Entiat Irrigation District has 850 shares serving approximately 800 acres in and around the City of Entiat, extending approximately 1 mile up the Entiat River from the city. The system delivers water with a minimum of 40 pounds of pressure, and the board feels that the system is pumping at capacity.

The system delivers only irrigation water. Some conversion from orchard to housing is anticipated. Planned Improvements include piping replacement and updating of the pump house. Computers and valve assemblies are also gradually being replaced.

Isenhart Irrigation District
The Isenhart Irrigation district serves 26 equivalent residential users with irrigation water east of the City of Chelan and east of Highway 150, on both sides of Highway 97 Alt. The capacity of the system is 4 CFS, including domestic and irrigation usage.

Lower Squilchuck Irrigation District
The Lower Squilchuck Irrigation District serves irrigation 9 customers along Methow Street south of the City of Wenatchee out to the Lovitt Mining Company Orchards, including the Heath Development. The capacity of the system is 1,100 CFS. No expansion of the system is anticipated, as the system is limited to existing water rights. Recent improvements have included major piping replacement.

Sunnyslope Irrigation Company
The Sunnyslope Irrigation Company serves 48 users in the vicinity of American Fruit, Crestview and Lovell and Knowles Roads in the Sunnyslope area. The capacity of the system is 2, 400 GPM and could be expanded to 3200 GPM if service area were expanded. About one third of the area is currently in orchards, with the remaining likely to be developed into residential use. Future demand will be met with the capacity of the system. Another pump will be added to attain full capacity within 5 to 7 years.

Sleepy Hollow Water System (aka Warm Springs Irrigation)
The sleepy hollow serves irrigation water to Short subdivision # 1755 and 1754, Sleepy Hollow Estates, Phases I and II and one other adjacent property. The system also provides a secondary source of water for fire protection to SS # 1754 and Sleepy Hollow Estates Phase I and II. The water permit is for 2 CFS, 512 AF per year between April 15, and October 15 of each year. There are presently 26 users of the system, representing 70% of the shares. When fully utilized, there will be 48 users, which is the designed capacity of the system.

Lower Stemilt Irrigation District
The Lower Stemilt Irrigation District serves 11 customers in the Stemilt Creek Basin. The capacity of the system is 5,730 GPM with no expansion to the system planned. System improvements include ongoing upgrading of system and normal maintenance.

Chelan Falls Irrigation District
The Chelan Falls Irrigation District serves 30 customers at the south end of Chelan Falls, and along the Columbia River south to the end of the Dovex Property. The system was upgraded in 1995-96 with new piping and was pressurized, operating now at 120 PSI. The system capacity is 15 CFS by agreement with Chelan County PUD. There are no plans for expansion of the system. Ongoing improvements include normal maintenance.

Wenatchee-Chiwawa Irrigation District
The Wenatchee-Chiwawa Irrigation District serves approximately 1300 acres near the town of Plain in the Plain Valley. The system serves approximately 300 customers and has a capacity of 33.3 CFS withdrawn from the Chiwawa River. There are no plans for expanding the system. Planned improvements to the system include ongoing maintenance

Beehive Irrigation District
The Beehive Irrigation District is located on both sides of Squilchuck road, Northeast of Squilchuck State Park. The district serves 63 irrigation customers owning 223 shares. There are no plans for expansion to the system. Planned improvements to the system include general maintenance.

SANITARY SEWER SYSTEMS
On site sewage disposal is the anticipated method for treatment of wastewater in the rural portions of Chelan County due to lower population densities and the prohibitive associated costs of providing treatment plant capabilities.

In 1994 the Chelan County PUD completed a Wastewater Utility Plan. Locations, capacities, deficiencies and proposed improvements of water/wastewater system components are identified. For inventory purposes this plan is referenced for this comprehensive plan.

Chelan County PUD has developed a satellite system program to assist utilities with their technical and administrative tasks, minimize extended water outages and other inconveniences associated with emergency conditions. This is to ensure that customers are receiving safe and satisfactory water and wastewater service, and provide a variety of other functions. The PUD has signed a Memorandum of Understanding with Chelan County to provide satellite system management services. PUD wastewater systems along with other wastewater treatment systems outside of incorporated areas and their associated urban growth areas are included in the following:

Chelan County Public Utility District - Olds Station
The Olds Station wastewater system serves 46 primarily commercial and industrial customers in the Sunnyslope/Olds Station area. The wastewater system consists of a gravity collection system containing approximately 16,000 lineal feet (3.03 miles) of 6 to 15-inch diameter sewers; a duplex pump station; and 11,300 feet (2.14 miles) of 12-inch diameter force main. The force main discharges to the City of Wenatchee collection system. The PUD is charged by the City based on the quantity and strength of the discharged wastewater.

The system is a collection system that conveys wastewater from Olds Station to the City of Wenatchee for treatment. Therefore, system deficiencies for Olds Station are related to the system's ability to collect and transport wastewater. Additional capacity will need to be negotiated with the City of Wenatchee or a new treatment facility is required to provide additional wastewater service beyond the current agreement between the PUD and the City of Wenatchee. According to the PUD Water and Wastewater Utility Plan, the Olds Station sewage pumps or pump station may require an overhaul or upgrade to larger pumps if sewer service is extended into Sunnyslope, or if industrial growth exceeds the present pumping capacity of the system.

The existing wastewater flow capacity that Olds Station can transport to the City of Wenatchee sewage treatment plan, as specified under their service agreement, is 810,000 gallons per day (gpd). The present average wastewater flow through the Olds Station system is approximately 430,000 gpd. Peak daily flows have been significantly higher than the 430,000-gpd average; however, the PUD believes a significant portion of the system capacity is not presently being used. The Water and Wastewater Utility Plan

contains an inventory of the locations, capacities, deficiencies and planned improvements of the Olds Station Wastewater System.

Additional system capacity may be needed for the Olds Station system if wastewater service is extended into Sunnyslope to serve the Urban Growth Area. A joint effort by Chelan County, Chelan County PUD and the City of Wenatchee is being considered to study expanded wastewater collection and treatment for the Sunnyslope Area.

City of Chelan Sanitary Sewer System
The City of Chelan operates a sewer collection system and two waste water treatment plants (WWTP). The sewer system receives sewage from city customers as well as the Lake Chelan Reclamation District (LCRD) on the north shore of Lake Chelan and from the Lake Chelan Sewer District on the South Shore.

The demarcation line between The City sewer service and LCRD sewer service is approximately the down-lake tip of Rocky Point on SR 150. Customers up-lake from this point are served by LCRD and customers down-lake are served by the City of Chelan. It is approximately one mile down-lake from Rocky Point to the City Limits.

The LCSD is administered by the City of Chelan. All of the LCSD customers are in the County. With the recently completed extension, this system collects sewage from approximately on mile up-lake of Minneapolis Beach back to Chelan along SR 971 and SR 97A.. The Chelan County PUD no longer has an interest in this system.

Per the City's Wastewater Facility Plan, published in Feb. 2000 and adopted herein by reference, the Phase I upgrades to the wastewater treatment plant (completed in 2002) will result in a plant capacity of 1.77 million Gallons per day (mgd). Phase II improvements scheduled to commence in year 2008 or as required by growth would result in a capacity of 2.66 mgd. The City's average and maximum sewer flows at present and in 2021 were calculated as follows.

	LCSD	LCRD	CITY	TOTAL
Present average:				
ERU	235	1265	3076	
Avg. total GPD	51k	171k	652k	874K
Estimated 2021 Avg:				
ERU	369	215	7498	
Avg. total GDP	80k	291k	1590k	1961K
Estimated 2021 Max:	215k	421k	2020k	2,656K

Lake Chelan Reclamation District Sewer System
Sanitary sewers were first installed in the Manson area in the late 1940's. The Lake Chelan Reclamation District (LCRD) became the successor in interest of facilities from several sewer entities between 1979 and 1994 and presently provides sewage collection and transmission services from Willow Point down-lake to Rocky Point including the urban growth area of the community of Manson. The system is comprised of several major lift stations and over 15 miles of collection and transmission pipelines. Sewage

treatment is provided at the City of Chelan Wastewater Treatment Plant. The LCRD pays for a pro-rata share of operations and maintenance costs for treatment as well as capital improvement costs to the City of Chelan for the wastewater treatment facility.

The LCRD system serves approximately 1,360 connections with a peak tourist population of 3,500 in the summer months. The existing capacity is 1,585 connections with construction planned in 2003 - 2004 to increase the capacity to the demand forecast for the planning period. Connections are projected at 2,266 in the year 2025 with an estimated peak tourist population served of approximately 5,700.

The area served by the LCRD sewer system is a mixture of commercial agriculture, rural residential and urban residential and commercial land uses. Rural residential usage is the dominant land use with a small amount of commercial agriculture while the remaining uses are located within the Manson urban growth area.

The LCRD has a draft General Sewer Plan and Northshore Wastewater System Improvements Facility Plan, dated October 2002, that includes a description, analysis and proposed improvements to the system, and is adopted by reference as part of this comprehensive plan. This LCRD Plan was designed to be in concurrence with the Chelan County Comprehensive Plan.

Chelan County Public Utility District Wastewater System – Dryden
The Dryden wastewater system consists of a collection system and community septic tank and drainfield. The collection system consists of approximately 4,000 lineal feet of concrete and some PVC pipe. The treatment facility consists of two septic tanks each having a capacity of 23,000 gallons and three separate drainfields, each having approximately 3,400 feet of drainpipe. The system serves approximately fifty-five customers and receives an average daily flow of 24,000 gallons per day. The system service area map and details of the system components are located in the Chelan County PUD No. 1 Water and Wastewater Utility Plan, Volume 3, hereby referenced for inventory purposes.

The Dryden wastewater system has not experienced water quality problems to date. However, a possibility exists of future water quality problems as a result of the system's proximity to the Wenatchee River. Needed system improvements include replacing all old substandard pipes. There is no identified capacity expansion needs at this time. The Capital Improvement Plan for the Dryden Wastewater Treatment System is located in Volume 3 listed above.

Chelan County Public Utility District Wastewater System - Peshastin
The Peshastin wastewater system serves the community of Peshastin, located along the north side of the Wenatchee River three miles east of Leavenworth. The system is a step tank, force main collection system with a secondary treatment plant with discharge to the Wenatchee River.

The current demand on the system is 73,000 GPD. Currently there are 125 residential connections, 4 commercial connections, 2 industrial connections and 6 institutional connections. The projected demand is 110,000 GPD, through the year 2020, which is the design capacity of the system. A projection for the mix of types of future uses has not been made.

Chelan County Public Utility District Wastewater System - Lake Wenatchee
The Lake Wenatchee area wastewater system, composed of collection and treatment facilities, is managed and operated by the Chelan County PUD in the District's role as a Satellite System Management Agency for Chelan County.

The Lake Wenatchee Wastewater collection system currently serves the Lake Wenatchee area including properties on the north shore along North Shore Drive west to the former location of the Cougar Inn, on south shore of the lake along South Shore Drive (Cedar Brae Road) west near Camp Zanika Lache, and around the outlet of the lake.

The collection system processes the wastewater from the customers using septic tank effluent pumping (STEP) systems with each tank serving approximately 1 to 3 lots. Effluent is pumped from each septic tank to collection lines and the solids are detained in septic tanks. Periodically, the tanks are pumped out and the solids are hauled to a licensed disposal site (currently in Douglas County) where they are spread and disked into the ground. Disposal sites have been readily available according to a licensed septic tank pumping contractor. Operation and maintenance of the STEP systems are the responsibility of the PUD. Not all residences with sewer availability or adjacent to the collection system are connected. This is their individual choice. New residents and properties with failing systems must hook up to the system.

The treatment facility is a lagoon/sand filtration system located near the intersection of Hwy 207 and the Chumstick Hwy., which is an upgrade of the old primary treatment system that was operated by the Forest Service. The system was designed to add incremental capacity as needed when additional users connect to the system.

The Lake Wenatchee/Fish Lake sector is the only portion of the Plain/Lk. Wenatchee study area that has the density, and water bodies to protect that indicates the need for a public wastewater system. Collection lines could be extended to serve other properties within this sector such as the Fish Lake area via the existing transportation corridors. Similarly, wastewater service can be extended to properties such as the State Park and Kahler Glen. Treatment facility improvements are in the process to increase plant capacity and will be completed in 2003.

The Plain area has a number of urban density subdivisions served by septic systems that may have the potential to impact the quality of the local ground water and the Wenatchee and Chiwawa Rivers. The extension of pipe and pump stations to the existing facility at Lake Wenatchee is cost prohibitive at this time.

Development of a public wastewater system serving the remainder of the study area is unlikely due to low population growth and insignificant new development predictions for the next 20 years. Any new development in rural areas, outside of the Lake Wenatchee/Fish Lake sector, could be served by adequately designed and constructed on-site disposal systems.

Stehekin Wastewater Treatment - National Park Service
The National Park service maintains a sewage treatment plant serving only the Stehekin landing area used for National Park Service businesses and residents at Stehekin Landing. Any increases to capacity will be the responsibility of the National Park Service.

The system includes gravity flow collection to a lift station that pumps to the treatment plant. The lift station was rebuilt in 1998. The plant's service capacity is 25,000 GPD and currently handles 15,000 to 18,000 GPD. The service area includes approximately 76 ERU (equivalent residential units).

There are no additional plans for expansion of the system as there are no projected increased demands for the system. Future improvements to the system involve maintenance of the system.

STORMWATER

The storm drain system for Chelan County's roads consists primarily of roadside ditches, with culvert pipes used to carry drainage under roads and driveway approaches. Drainage is typically carried in the roadside ditch to a point where it is directed to a natural drainage course.

In more urbanized areas, a limited number of piped drain systems are in place. These areas include Olds Station, Sunnyslope, Peshastin, Leavenworth, and Manson. The piped systems are located where it was necessary to construct a roadway with curb and gutter with catch basins.

In January 2008, Chelan County adopted a surface stormwater utility boundary and program to fund and manage the stormwater needs within the unincorporated areas around the City of Wenatchee. Since then, the County has been collecting and analyzing data to determine stormwater flows, water quality and identify deficiencies. This data and the prioritized capital facility projects has been compiled into the Chelan County 2012 Comprehensive Stormwater Plan, dated July 2012, that is adopted by this reference.

To address potential problems associated with water runoff it is important to address stormwater with development standards at the time that development proposals are considered for approval.

SCHOOLS

Public schools in the County are administered through seven school districts. Not include in this inventory is a small portion of the Azwell School District lies with Chelan County. None of this District's facilities are located within the County. School facilities within the seven districts include the following:

Chelan School District 129 Facilities

- Lake Chelan High School/Middle School, 215 Webster St., Chelan
  105,000 sq. ft.
  Enrollment: HS – 450 (includes MAC)
  Enrollment: MS – 299
- Morgan Owens Elementary School, 407 E Woodin Ave., Chelan
  60,464 sq. ft.
  Enrollment: 555
- Lake Chelan School District Office, 303 E. Johnson, Chelan
  4,107 sq. ft.
- Community Gym, 1063 E. Woodin St., Chelan
  24,995 sq. ft.

- Bus garage/Locker rooms at football field, 1063 E Woodin St., Chelan
  13,670 sq. ft.
- Glacier Valley Alternative School/Nite Preparatory School, 324 E. Johnson Ave.
  9,600 sq. ft.

At the present time there are no plans to provide additional facilities.

Manson School District 19 Facilities

- Administration Office, 312 Quetilquasoon, Manson
  3,000 sq. ft.
- Manson Elementary, 950 Totem Pole Road, Manson
  41,600 sq. ft.
  Enrolment: 312
- Manson Junior/Senior High School, 1000 Totem Pole Road, Manson
  76,612 sq. ft.
  Enrolment: 296
  Football field

Future needs for the district include updating of the transportation facility as well as the football field. Manson's enrollment is projected to remain stable.

Cascade School District 228 Facilities

- Cascade School District office, located at 330 Evans Street, Leavenworth, WA 98826
- Beaver Valley School, 19265 Beaver Valley Road, Leavenworth, WA 98826
- Peshastin-Dryden Elementary School, 10001 School Rd., Peshastin, WA 98847
  Grades K-4 Enrollment: 178
- John Osborn Elementary School, 225 Central Ave., Leavenworth, WA 98826
  Grades K-4, Enrollment: 268
- Icicle River Middle School, 10195 Titus Road, Leavenworth, WA 98826
  Grades 5-8, Enrollment: 450
- Cascade High School, 10190 Chumstick Hwy, Leavenworth, WA 98826
  Grades 9-12, Enrollment: 518

The Cascade School District does not project any significant enrollment increase within the next five to ten years. Winton School was closed and replaced by Beaver Valley School in 2000 to accommodate grades kindergarten through 4th.

Entiat School District 127 Facilities

- Paul Rumberg Elementary School, 2650 Entiat Way
  23,163 sq. ft. plus 2,400 sq. ft. in portable classrooms
  Enrollment: 211
- Entiat Junior/Senior High School, 2650 Entiat Way
  23,855 sq. ft. including District office space
  3,120 sq. ft.: Elementary and High school offices
  9,263 sq. ft.: Multi-purpose room
  8,000 sq. ft. Helen Kinzel Gymnasium
  484 sq. ft: Concession stand
  Enrollment: 173
- Bus Garage - 13580 Davis St., Entiat

4,285 sq. ft.

The Entiat School District projects enrollment to be 450 in the year 2006/7. In 3 to 5 years the District anticipates building one new school on the existing 25-acre school site to accommodate this demand.

Cashmere School District 228 Facilities

- Vale Elementary School, 101 Pioneer Ave., Cashmere
- Cashmere Middle School, 300 Tiger Road, Cashmere
- Cashmere High School, 329 Tiger Road, Cashmere
- Bus Garage, 103 Paton Street, Cashmere
- Superintendent's Office, 210 S. Division, Cashmere
- Maintenance Office, 103 Paton St., Cashmere

The District is currently near capacity with 1,479 students for the 2002-2003 school years. The district anticipates that it may need additional facilities in the future but has no current plans for expansion.

Wenatchee School District #246 Facilities

Wenatchee Public Schools located and serving primarily outside of the Wenatchee Urban growth area include:

- Sunnyslope Elementary School, 3109 School St., Wenatchee
  Enrollment: 284

  Students living in the Sunnyslope area in grades K-6 attend Sunnyslope Elementary School of the Wenatchee School District. This facility is scheduled to be modernized during the spring and summer of 2004. When completed the capacity of the school will be at 315 students with a total of twelve classrooms. The district has acquired 4 acres east of the existing school for new facilities as needed.

- Malaga-Stemilt-Squilchuck Area
  No public schools are located within the Malaga-Stemilt-Squilchuck Area. The Malaga area school closed in 1969 when the Wenatchee School District extended it boundaries to include that part of the county. Students from the Malaga-Stemilt-Squilchuck Study Area attend Wenatchee School District facilities.

  According to the 2000 Census there were 372 elementary school age children living in the Malaga/Stemilt/Squilchuck Area. High and low projections of elementary school age children have been prepared. It is projected that by the year 2012 there could be 590 (low projection) to 689 (high projection). If either of these projections is realized, it is likely that a new elementary school will be needed to serve the study area.

- Wenatchee School District
  The Wenatchee School District indicated that they use a threshold of 500 children for establishing the need for new elementary schools. As the population of the study area increases it is anticipated that a new elementary school will be

needed to serve the area. Currently the nearest elementary school, Mission View, is located in the south end of Wenatchee on Terminal Avenue. It is important to note that the Malaga-Stemilt-Squilchuck Study Area includes the Squilchuck Road corridor which, due to the restricted transportation network, would most likely remain within the service area of Mission View School. Approximately 25 acres of land has been acquired for future expansion in the Malaga area.

Stehekin School District #69

- Stehekin Public School, Stehekin WA 98852
  Enrollment: 9 Students K-8

The Stehekin School serves the area surrounding the North end of Lake Chelan. The present school was built in 1988 and can serve up to 30 students. There is no anticipated need for a new school.. Future enrollment is anticipated to remain constant, from 5 to 15 pupils.

PARKS AND RECREATION FACILITIES

The Wenatchee River County Park, located in the Monitor area, is the only County-owned park. This park includes 17 developed acres adjacent to the Wenatchee River, and includes full service camp- sites for recreational vehicles. Chelan County is well known as an area of outstanding and diverse recreational opportunities. Many of these opportunities are dispersed and occur on State and Federal lands. The County includes all or portions of the North Cascades National Park, Lake Chelan National Recreation Area, and The Glacier Peak, Henry M Jackson and Alpine Lakes and Sawtooth Wilderness Areas.

Included among the many recreation opportunities are snowboarding, cross-country and downhill skiing at Mission Ridge, Stevens Pass Nordic Center, and other ski locations, boating and water sports, golf, hiking, hunting, fishing, camping, motorized trail sports, horseback riding, sightseeing, bird watching, fossil, rock and mushroom collecting, etc.

Many regional facilities are inventoried within the incorporated Cities comprehensive plans and will not be listed in an effort to avoid duplication. Other public developed recreation sites within the County are included below.

Manson Park and Recreation District

The Manson Park District manages 5 parks within the planning area: Manson Bay Park, Old Mill Park, Singleton Park, Willow Point Park, and Wapato Lake Campground.

The 2 acre Manson Bay Park is located in downtown Manson and consists of a lake overview, swimming area, picnic area, restrooms, 3 boat docks, and winter only boat launch. Future improvements include the 30 -slip Manson Bay Moorage, marine dump station, and parking.

The 23-acre Old Mill Park is located 2 miles east of Manson on Highway 150. The facilities at the park consist of a 4-lane boat launch, short-term moorage, a picnic area, restrooms, marine dump station, and boat trailer parking. Fifteen acres are currently developed. The Manson Recreation District hopes to eventually provide camping facilities on the remainder of the property.

The 10-acre Singleton Park is located on the corner of Madeline and Hyacinth off of Highway 150. This park contains baseball fields and a soccer field, as well as picnic gazebo and restroom facilities. Future developments include a basketball court, and universally accessible paths and parking, and playground improvements.

The 2 acre Willow Point Park, located on Lake Chelan on Willow Point Drive in Manson, provides opportunities for swimming and day use with 3 barbecues and 5 picnic tables.

The Wapato Lake Campground is located at the East End of Wapato Lake. The campground facilities include a boat launch, 24 recreational vehicle hookups, 11 campsites, 2 boat docks, 1 gazebo and restroom facilities. Future improvements include an electric upgrade.

Manson Park Office, is located on Pedoi Street in downtown Manson. Remodels planned for 2003 and 2004 will expand the facility from 750 sq. ft. on the first level and an unimproved basement to add 595 sq. ft. on each of two levels, and add public shower facilities near the Manson Bay Moorage.

Chelan County Public Utility District
The Chelan County Public Utility District has developed a number of parks within the County. Parks beyond the City jurisdictional planning areas include:

Chelan Falls Park is a 53-acre park constructed along the banks of the Columbia River in the small community of Chelan Falls. Facilities at the park contain a 2-lane boat launch, short-term boat moorage, parking, extensive day use facilities, picnic shelters, restrooms, showers, shoreline trail, a tennis court, playground equipment and a swimming area.

State Recreation Facilities
Lake Chelan State Park is located at 7544 S. Lakeshore Drive. The park includes 127 acres with 6400 feet of shoreline on Lake Chelan.

Twenty Five Mile Creek State Park is located at 2530 S. Lakeshore Drive. The park includes 235 acres with 1500 feet of shoreline on Lake Chelan.

Lake Wenatchee State Park (including Nason Creek) is located at 21588 A Highway 207, Leavenworth. The park includes 488 acres with 12,623 feet of shoreline on Lake Wenatchee.

Wenatchee Confluence Park, owned by Chelan County Public Utility District #1, and operated by the State, is located at 333 Olds Station Road, Wenatchee, at the confluence of the Wenatchee and Columbia Rivers. The park is 197 acres with 8,625 feet of shoreline on the Columbia River.

Ohme Garden State Park is located at 3327 Ohme Road, Wenatchee. The park includes nine acres and is operated by Chelan County.

Squilchuck State Park is located near the junction of Squilchuck road and Wenatchee, Mountain Road south of Wenatchee. Long term plans for the park have not been determined.

Pinnacles State Park is located on Dryden Rd. 2 miles west of Cashmere. The park is 135 acres and is popular for hiking and rock climbing.

United States Forest Service Facilities
There are a number of recreational opportunities available to residents and visitors alike on lands owned and managed by the U. S. Forest service located within Chelan County. Besides a variety of hiking, mountain biking and motorized trails there are dozens of drive to and remote campgrounds, day use and trailhead facilities. Included in the developed Forest Service Campgrounds are the following:

Antilon Lake
Junior Point
Windy Camp
Domke Lake
Hatchery
Bygone Byways
Deer Point
Silver Falls
Three Creek,
Graham Harbor Creek
Refrigerator Harbor
Bridge Creek
Chatter Creek
Tumwater
Meadow Creek
Grouse Creek
Chiwawa Horse Camp
Alpine Meadows
Glacier View
Theseus Creek
White River Falls
Atkinson Flats
Holden
White Pine
Grouse Mtn. Springs
Cascade Creek
Fields Point Landing
Domke Falls
Moore Point
Big Creek
Fox Creek
North Fork
Cottonwood
Lucerne
Safety Harbor
Johnny Creek
Rock Island
Alder Creek
Deep Creek
Finner Creek
Schafer Creek
Phelps Creek
Soda Springs
Napeequa Crossing
Fish Pond
Graham Harbor
Ramona Park
Handy Springs
South Navarre
Fish Lake
Stuart
Prince Creek
Corral Creek
Lake Creek
Spruce Grove
Pine Flat
Mitchell Creek
Eight Mile
Ida Creek
Black Pine Creek
Goose Creek
Deer Camp
Riverbend
Nineteen Mile
Nason Creek
Little Wenatchee Ford
Grasshopper Meadows
Rock Creek
Grouse Mountain
Swiftwater

National Park Service Developed Campgrounds
There are a number of recreational opportunities available to residents and visitors alike on lands owned and managed by the National Park Service located within Chelan County. Included in the developed National Park Service Campgrounds are the following:

Purple Point, Weaver Point, Harlequin, High Bridge, Tumwater, Dolly Varden, and Shady campground.

Although the County is rich in recreational opportunities some parts of the County have few opportunities for traditional community sports activities such as baseball, soccer, etc. Facilities for these types of activities tend to be located in more urbanized locations. Opportunities for expanding these types of facilities should be considered as sites and resources are identified.

Law Enforcement
The Chelan County Sheriff's Office provides 24-hour Law Enforcement services to the unincorporated areas of the County as well as the incorporated contract cities of Cashmere, Leavenworth, and Entiat.

The Chelan County Sheriff's Office provides for police protection to the unincorporated Chelan-Manson Study Area utilizing an unmanned office at the Trout Blue Chelan Building on State Rt. 150 east of Chelan.

Chelan County also provides law enforcement services to the Entiat Valley Study Area including the City of Entiat under contract. The City of Entiat provides a branch office for deputies to complete reports and interviews, located in the Entiat City Hall.

Chelan County also provides law enforcement services to the Lower Wenatchee River Valley Study area, including the City of Cashmere under contract. Five deputies, including a sergeant, work out of the Cashmere detachment office located at the Cashmere City Hall.

Chelan County provides law enforcement services to the Upper Wenatchee River Valley Study Area, including the City of Leavenworth under contract. Five deputies, including a sergeant, work out of the Leavenworth detachment office located at the Leavenworth City Hall. An additional two deputies are assigned to provide law enforcement services to the Lake Wenatchee area with a detachment office established in the District 9 Fire Hall.

The Regional Law and Justice Building in Wenatchee houses the headquarters of the Sheriff's Office, the 911 emergency dispatch center, the Regional Jail, and the County Prosecuting Attorney's Office, and Superior Court offices. The facility opened in 1984. Principal partners in the Regional Jail are Chelan County, Douglas County and the City of Wenatchee. Expansion of the existing adult detention facility was completed in 2000, which increased the capacity to 269 beds. The facility is considered to be chronically overcrowded. Plans are being prepared to expand the facility to adjacent County-owned buildings to provide a 400-bed facility, which is projected to be sufficient for the planning horizon.

In 1998 the County completed a new 50-bed juvenile detention facility located at 300 Washington Street, Wenatchee.

FIRE PROTECTION

Chelan-Manson Area
Two Chelan County fire districts provide fire protection for the Chelan Study Area and one fire district provides protection of the Entiat Study Area. Fire District 5, which covers the Manson area, has their main station located in Manson. Fire District 7 provides fire protection for the City of Chelan and the unincorporated areas around the City including Chelan Falls. District 7 stations are located in Chelan, in Chelan Falls, at the Chelan Airport and at Kelly's Resort.

Chelan County Fire District #7
a. Station #1 Location: 232 E Wapato Way, Chelan

Equipment: 2 Fire Engine/Pumpers; 1 Rescue/Medical Assist; 1 Water Tender/Tanker; 1 Brush Truck, 1 Ladder Truck
Number of Personnel: 1 full-time, 2 seasonal, 40 Volunteer (personnel for all 4 stations in District)

b. Station #2 Location: Chelan Falls
Equipment: 1 Fire Engine/Pumper, 1 Water Tender/Tanker, and 1 Brush Truck

c. Station #3 Location: Kelly's Resort (South Shore of Lake Chelan)
Equipment: 1 Fire Engine/Pumper, 1 Water Tender/Tanker, and 1 Brush Truck

d. Station #4 Location: 565 Apple Acres Road. Chelan Airport
Equipment: 1 Fire Engine/Pumper, 1 Brush Truck

There are no planned capital improvements or expansions for Fire District #7.

Chelan County Fire District #5
a. Station Location: 250 W. Manson Blvd. Way, Manson
Equipment: 2 Fire Engines/Pampers; 1 Brush Truck, 1 Ambulance/Aid car
Number of Personnel: 27 volunteers

b. Station Location: 2010 Wapato Lk. Road. Manson
Equipment: 1 Pumper, 1 Tender/Tanker, and 2 Brush Trucks

There are no planned capital improvements or expansions for Fire District #5.

Entiat Valley Area
Chelan County Fire District #8 provides fire protection for the study area. Five stations serve the City of Entiat, the Entiat River Valley and property north and south of the City of Entiat adjacent to the Columbia River, from Tenas George Canyon to Staymen Flats. The residents of Navarre Coulee are also served by Fire District #8.

Chelan County Fire District #8
a. Station #1 Location: 4674 Entiat River Road, Entiat
Equipment: 2 Water Tender/Tankers, 1 Fire Engine/Brush Truck
Number of Personnel: 40 Volunteer (for the entire district)

b. Station #2 Location: Entiat River Road. and Entiat Way
Equipment: 1 Fire Engine/Brush Truck, 2 Ambulances

c. Station #3 Location: City Of Entiat Station in conjunction with City Hall
Equipment: 1 Pumper Truck, 1 Brush Truck

d. Station #4 Location: Ardenvoir
Equipment: 1 Fire Engine, 1 Brush Truck, and 1Water Tender

e. Station #5 Location: 20 Miles up the Entiat River Road from Hwy. 97, in the Riverwood Subdivision.
Equipment:

f. Future Station Location: Stayman Flats

No additional improvements are currently planned by Fire District 8.

Malaga-Stemilt-Squilchuck Area
Chelan County Fire District #1 provides fire protection to approximately one-third of the study area. The rest of the area is not within a public fire district boundary. On federal lands outside of the district boundary fire protection services are coordinated between the District and the U.S. Forest Service pursuant to an Emergency Fire Suppression Agreement.

Chelan County Fire District #1
a. Station #4 Location: 4852 Squilchuck Road, 1836 S. Mission, Wenatchee

b. Station #5 Location: 320 Bohart Road, Wenatchee

c. Station #7 Location: 3760 West Malaga Road, Wenatchee.
Station #7 is a training center that has been designed as a multi-purpose facility, which will be available as a public meeting place. Also, the heliport here will replace the existing facility at the District's Easy Street headquarters.

Being a rural area the study area has some unique fire protection needs. Most of the area is not served with public water. During the summer months the threat of fire in the outlying areas usually results in road closures which restrict access and activities in certain areas. The roads and areas most often affected include: Pitcher Canyon Road, Forest Ridge Road, Wenatchee Heights Road, Stemilt Loop Road, Dago Grade and Halvorson Loop Road.

The Citizen Advisory Committee identified the Stemilt Hill area as an area of specific concern due to the lack of fire stations located in that area.

Lower Wenatchee River Valley Area:
Chelan County Fire Districts #1, #6 and #8 and the Cashmere Fire Department provide fire protection for the study area.

Chelan County Fire District #1
Chelan County Fire District #1, which covers Sunnyslope and unincorporated areas west and south of Wenatchee, has their main station located on Easy Street in the Sunnyslope area.

Station Location: 206 Easy Street (Sunnyslope)
Equipment: 1 Fire Engine/Pumper; 1 Aerial/Ladder Truck; 1 Water Tender/Tanker, 2 Brush Trucks
Number of Personnel: 17 paid, 35 Volunteer (personnel for all 9 stations in District)

The District believes an additional fire station will not be needed in the Sunnyslope area over the next 20 years.

Chelan County Fire District #6
Fire District #6 provides fire protection for Monitor north to Peshastin and has a station in Monitor, and shares space at the City of Cashmere station.

Station Location: Main Street, Monitor
Equipment: 1 Pumper, 1 Brush Truck

Station Location: City of Cashmere
Equipment: 1 Water tender, 1 Brush Truck, 1 Pumper

No planned improvements by Fire District 6 are known.

Cashmere Fire Department
Station Location: 200 Cottage Avenue, Cashmere
Equipment: 2 Fire Engines/Pumpers; 2 Brush Trucks; 1 Water Tender/Tanker; 1 Aerial/ladder Truck; 1 Ambulance/Aid Car, 1 Command Vehicle, 1 Utility Truck
Number of Personnel: 25 Volunteer

Upper Wenatchee River Valley Study Area:

Chelan County Fire Districts #3 and #6 provide fire protection for the study area.

Chelan County Fire District #3
Main Station Location: 228 Chumstick Rd., Leavenworth
Equipment: 1 1500 GPM/750 Gallon and 1 1250 GPM Fire Engine Pumper, 80" Platform Truck, 1 500 GPM/2000 Gallon Tanker, 1 4x4 Crewcab Wildland/Rescue, 1 4x4 wildland, 1 4x4 Crewcab Command Pickup, 1 Utility Truck/Wildland.

Mile 7.5 Chumstick Rd.
Equipment: 1 1250 GPM/750 Pumper, 1 250 GPM/2500 Gallon Tanker

Number of Personnel: three (3) Career and twenty five (25) Volunteer personnel.

Fire District 3 provides fire protection for the Icicle and Chumstick Valleys, the City of Leavenworth and surrounding area.

Chelan County Fire District #6
Station Location: Main Street Peshastin.
Equipment: 2 Pumpers, 1 Brush Truck
Personnel: 17 volunteers.

Station Location: 6817 Dryden Avenue, Dryden.
Equipment: 2 Pumpers, 1 Brush Truck
Personnel: 23 volunteers

Station Location: Blewett Pass
Equipment: 1 Brush Truck, 1 Pumper
Personnel: 14 volunteers.
Future Needs: None identified by the Fire District.

Fire District #6 provides fire protection for the Peshastin, Dryden and Blewett Pass areas. Outside of the fire district boundaries, fire protection services are coordinated between the districts and the U.S. Forest Service pursuant to an Emergency Fire Suppression Agreement. The Chelan County Department of Emergency Management (DEM) acts as coordinating agency for that agreement. The DEM is currently working

on an interlocal agreement to include the State Department of Natural Resources in the Emergency Fire Suppression Agreement process.

Plain/Lake Wenatchee Area:

Chelan County Fire District #4
Fire District #4 has a service area that which includes the Ponderosa Subdivision and the southeast portion of Wenatchee Park #1. The District is 23 years old and one of the smallest fire districts in the state. District #4 also provides emergency medical service to Ponderosa and outlying areas. Equipment: The District has one station and 4 fire vehicles. The District participates in statewide mobilization efforts.

Chelan County Fire District #9
Fire District #9 serves most all of the rest of the populated areas in the Study Area, including Plain, Lake Wenatchee and the US Hwy 2 corridor from Chiwaukum to Cascade Meadows Church Camp up to White Pine Creek.

Station Locations: Station #1 located at 216 Lake Wenatchee Hwy.; 1 Engine/Pumper, 1 Brush Truck, 1 Water Tender, 1 Rescue/Air Vehicle. Station #2 located at Chiwawa Pines; 1 Engine/Pumper, 1 Brush Truck. Station #3 located at Plain; 1 Engine/Pumper, 1 Water Tender, 1 Brush Truck. Station #4/Shop located at Plain; 1 Water Tender 1 Command Vehicle.

Twenty-two volunteers staff all stations.

Stehekin Area
The National Park Service provides wildland and structure fire protection for federal lands and federally owned structures in Stehekin. Through a memorandum of agreement the Park Service provides initial attack response for wildland fire on non-federal land. The Park Service is not equipped or staffed to provide fire protection services for privately owned structures in Stehekin.

CHELAN COUNTY PROPERTIES

Sunnyslope Shop, 210 Easy Street, Wenatchee, 8.77 acres
Equipment Maintenance Shop
Wenatchee Road Crew Shop
Sign Crew Shop
Sander Storage Shed
Emergency Services Buildings
Fuel Storage
Materials Stockpile

Cashmere Shop, 5815 Wescott Drive, Cashmere, 4.36 acres
Cashmere District Shop
Sander Storage Shed
Materials Stockpile
Fuel Storage
Metal Building

Leavenworth Shop, 10210 County Shop Road, Leavenworth, 6.87 acres
Leavenworth District Shop
Sander Storage Shed
Materials Stockpile
Fuel Storage

Ardenvoir Shop, 9486 Entiat River Road, Entiat, 1.7 acres
Special Permit from Forest Service
Entiat District Shop
Materials Stockpile
Fuel Storage

Chelan Shop, 23290 Highway 97A, Chelan, 5.0 acres
Chelan District Shop
Sander Storage Shed
Materials Stockpile
Fuel Storage

Squilchuck Sand Storage
Metal Building
Materials Stockpile

Transfer Stations:
Dryden, 18.53 acres
Chelan, 1.79 acre

Miscellaneous:
Sludge Site, Leased to City of Wenatchee, 43.93 acres
Manson Landfill (Closed), 12.52 acres

Pit Sites

- Shaw Pit K-116, Stemilt Hill Road, 2.4 acres
- Shugart Flats Gravel, 12.25 acres
- Colockum Pit, 2.02 acres
- Boyd Road, 5.12 acres
- Malaga Pit K-129, 7.58 acres, Metal Building, Materials Stockpile
- Arne Sorlie Property, 120’ x 500’
- West Malaga Pit K-104, 26.12 acres, Materials Stockpile
- Lepley Pit - Chapman Road, 0.8 acres
- Icicle Road and SR 2 Pit K—36, 3.24 acres
- Washington Creek , 1.9 acres
- Leavenworth Day Pit K-155, 13 acres
- State Pit PS K 190, Lot 2, Block 2, River Glen Orchards
- Stanley Borrow and Gravel, 63 acres, Materials Stockpile
- Property next to Leavenworth shop.

County Buildings

- Annex Building, 411 & 415 Washington Street, Wenatchee, 17,250 sq. ft.
- Auditorium, 400 Douglas Street, Wenatchee, 10, 000 sq. ft.

- Chaplain's Building, 428 A. Orondo Avenue, Wenatchee, 1,500 sq. ft.
- Courthouse, 350 Orondo Avenue, Wenatchee, 41,000 sq. ft.
- Detoxification Center, 327 Okanogan Street, Wenatchee, 11,934 sq. ft.
- East Annex, 311 & 315 Palouse, Wenatchee, 2,800 sq. ft.
- Juvenile Administration, 316 Washington Street, Wenatchee, 18,000 sq. ft.
- Juvenile Detention, 300 Washington Street, Wenatchee, 39,000 sq. ft., 50 bed facility.
- Law & Justice Building, 401 Washington, Wenatchee, 98,560 sq. ft.
- The Law & Justice Building includes the 197 bed regional jail facility.
- Maintenance Garage, 428 B Orondo Avenue, Wenatchee, 16,000 sq. ft.

Improvements to these facilities, that have been identified as needed to maintain and improve the services supported by these facilities, are itemized in the Capital Financing Plan included in this Element.

IV. SIX YEAR CAPITAL FINANCING PLAN

The following table displays the Capital Financing Plan as required by the Growth Management Act RCW 36.70A.070(3)(d).

2016-2021 CHELAN COUNTY CAPITAL IMRPOVEMENT PLAN						
YEAR	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
PUBLIC WORKS						
Uses of Funds						
Construct Hazardous Waste Facility	160,000	200,000	100,000			
Vegecide Truck Wash Facility	15,000		50,000			
Wenatchee District Shop Replacement		125,000	2,500,000			
Road District Sheds: Accessibility, Shop Lighting & Electrical Efficiency Upgrades	150,000	150,000				
Total Uses of Funds	325,000	475,000	2,650,000	0	0	0
Sources of Funds						
County Road Fund	150,000	150,000	1,000,000			
Solid Waste Fund		50,000	30,000			
Distressed County Rural Tax Fund		125,000	1,500,000			
Total Sources of Funds	150,000	325,000	2,530,000	0	0	0
Variance	0	0	0	0	0	0
COMMISSIONER'S OFFICE						
Uses of Funds						
Tech Bond Debt Service	121,191	121,192	122,013	122,013	71,826	70,555
Master Plan Debt Service	255,107	255,108	251,665	251,665	253,573	249,860
Total Uses of Funds	376,298	376,300	373,678	373,678	325,399	320,415

2016-2021 CHELAN COUNTY CAPITAL IMRPOVEMENT PLAN						
YEAR	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Sources of Funds						
Distressed County Rural Tax Fund	121,191	121,192	122,013	122,013	71,826	70,555
Distressed County Rural Tax Fund	255,107	255,108	251,665	251,665	253,573	249,860
Total Sources of Funds	376,298	376,300	373,678	373,678	325,399	320,415
Variance	0	0	0	0	0	0
Local Option Tax Fund	-	-	-	-	-	-
Uses of Funds						
County Wide Public Projects	242,828	242,829	244,477	244,477	143,918	141,371
Total Uses of Funds	242,828	242,829	244,477	244,477	143,918	141,371
Sources of Funds						
Local Option Tax	242,828	242,829	244,477	244,477	143,918	141,371
Total Sources of Funds	242,828	242,829	244,477	244,477	143,918	141,371
Variance	0	0	0	0	0	0
COUNTY EXPO CENTER						
Uses of Funds						
Fairgrounds Redevelopment Bonds	150,959	150,960	151,838	151,838		
Accessibility						
Building Upgrades	50,000					
Event Center Renovation						
Carnival Lot Improvements			250,000			
Centennial Pavilion Parking Lot		125,000				
RV Park Improvement						
Grandstand/restrooms/concessions	100,000	100,000				
Beef Barn	30,000					
Total Uses of Funds	330,959	375,960	401,838	151,838	0	0
Sources of Funds						
Rural Distressed County Funds	150,959	150,960	151,838	151,838		
Capital Improvement, REET 2	130,000	225,000	250,000			
Grants, Loans, Donations	50,000					
Total Sources of Funds	330,959	375,960	401,838	151,838	0	0
Variance	0	0	0	0	0	0
CASHMERE DRYDEN AIRPORT						
Uses of Funds						

2016-2021 CHELAN COUNTY CAPITAL IMRPOVEMENT PLAN						
YEAR	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Runway Resurface				150,000	450,000	
Total Uses of Funds	0	0		150,000	450,000	450,000
Sources of Funds						
Grant and County Funds	0	0		150,000	450,000	
Total Sources of Funds	0	0	0	150,000	450,000	450,000
Variance	0	0	0	0	0	0
SHERIFF						
Uses of Funds						
Emergancy Operations Center	50,000	2,000,000				
Marine Patrol Storage Facility	100,000					
Cafeteria Improvements	150,000					
Total Uses of Funds	300,000	2,000,000	0	0	0	0
Sources of Funds						
REET 1	250,000					
Grants, Loans, Donations	50,000	2,000,000				
Total Sources of Funds	300,000	2,000,000	0	0	0	0
Variance	0	0	0	0	0	0
OHME GARDENS						
Uses of Funds						
Parking Lot Lighting		45,000				
Garden upgrades (lighting, restrooms, etc)	25,000					
Restroom/Event Multi-Purpose Room	125,000					
New Visitor & Interpetive Center Building	335,000	335,000				
Total Uses of Funds	485,000	380,000	0	0	0	0
Sources of Funds						
Capital Improvement Reet 2 Fund	80,000	45,000				
Tourism Grant, Other Grants, Donations	60,000					
Donations, Grants, Fund Raising	65,000	110,000				
Capital Improvement Reet 1 Fund	280,000	225000				
Total Sources of Funds	485,000	380,000	0	0	0	0
Variance	0	0	0	0	0	0
MAINTENANCE DEPARTMENT						

2016-2021 CHELAN COUNTY CAPITAL IMRPOVEMENT PLAN						
YEAR	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Uses of Funds						
Courthouse						
HVAC/Control Upgrades	410,845					
Facilities Signage		30,000				
Domestic Hot Water Heater Replacement		25,000				
Lighting UpGrade Retro Kits		180,000				
Boiler Replacement			168,000			
Carpet		60,000				
Marble Restoration		40,000				
Level 5 Remodel			290,000			
Law and Justice Bldg.						
Level 1 Office Remodel	150,000					
Lighting UpGrade Retro Kits	220,000					
Carpet	85,000					
Elevator Modernization			175,000			
410 Washington						
HVAC Unit Replcement		25,000				
Juvenile Detention Bldg.						
Chiller Compressor Replacement	65,000					
Security Systems Upgrade	185,000					
HVAC Controls Upgrade	65,000					
West Annex						
HVAC Upgrade/Replacement	25,000					
Conference Remodel/Flooring/Lighting	75,000					
ADA Upgradess			150,000			
316 Building						
Compressor/Control Upgrades	54,000					
CASA						
HVAC Electrical				1,518,567		
Elevator/ADA Upgrades			170,000			
Building Interior Renovation		100,000				

2016-2021 CHELAN COUNTY CAPITAL IMRPOVEMENT PLAN						
YEAR	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Window Replacement	206,255					
Roof Replacement		128,040				
Total Uses of Funds	1,541,100	588,040	320,000	1,518,567	0	0
Sources of Funds						
Capital Imp. Reet 1 Fund	200,000	350,000	320,000	500,000		
Distressed County Rural Tax Fund	500,000			393,567		
Energy Incentives (PUD)	125,000			125,000		
Grant Funding (Department of Commerce)	225,000					
L&J Construction Fund	491,100	238,040		500,000		
Total Sources of Funds	1,541,100	588,040	320,000	1,518,567	0	0
Variance	0	0	0	0	0	0

V. GOALS AND POLICIES:

LEVELS OF SERVICE

GOAL CF 1: Provide and maintain acceptable levels of public facilities and services.

Goal Rationale: The provision and maintenance of public facilities and services should be consistent with the needs of the community they serve.

Policy CF 1.1: As the need arises encourage and participate in the establishment of a regional forum to address area wide public facility and service and utility needs.

Rationale: Similar public facilities and services are provided by several entities that share mutual responsibilities and concerns. Coordination among agencies and districts, including consolidation of services if appropriate, would lead to increased efficiency and effectiveness in meeting needs on an area wide basis.

Policy CF 1.2: Where available ensure that public services and facilities are adequately planned and designed to protect the public health, safety and welfare.

Rationale: Inadequate public services and facilities may pose a risk to the public.

Policy CF 1.3: Provide for annual review and update of the capital facilities element.

Rationale: The capital facilities element requires annual review to ensure consistency with the current Chelan County Budget, to monitor capacity and demands on public facilities and services and potential changes to the land use element.

Policy CF 1.4: Development regulations should be flexible and receptive to innovations and advances in technology for the provision of public facilities and services.

Rationale: It is important for local permitting agencies to keep their standards and permitting requirements current and applicable with advances in the provision of public facilities and services.

Policy CF 1.5: Level of service standards should be coordinated at the interface between adjacent jurisdictions.

Rationale: Coordination of levels of service at jurisdictional interfaces will help to insure the availability of service as development occurs.

Policy CF 1.6: Annual review of current levels of service and capital facilities will be made by the County to ensure the ability to provide and maintain adequate public facilities and services consistent with the County Comprehensive Plan.

Rationale: Levels of service must be established and evaluated on an annual basis to insure that they are appropriate and affordable for the County.

Policy CF 1.7: Adequate public facilities and services to serve development shall be available when the impacts of development occur, or within a specified time thereafter, without decreasing established minimum levels of service.

Rationale: Establishing and maintaining locally desired levels of service for public facilities and services will help to ensure that facility and service needs are met.

UPPER WENATCHEE RIVER VALLEY AREA

Policy CF 1.8: The County should consider and support the findings of the Leavenworth Water Problems Study when addressing location or expansion of needed public facilities.

Rationale: Public facility additions or expansions should consider the site specific data and information and findings outlined in this report.

Water Systems

Policy CF 1.9: In the review of water plans, the County shall consider consistency with the County's Comprehensive plan and the Growth Management Act.

Rationale: Effective comprehensive planning requires consistency among plan elements and plans.

Policy CF 1.10: Support and encourage water conservation measures by local purveyors and educate users on methods to conserve water.

Rationale: Water is a limited resource. Coordination of water use on a watershed basis is encouraged.

Policy CF 1.11: Ensure that individual and public water systems are safely developed to support the projected growth of the County while considering

environmental impacts and recognizing the location of adjacent wells and septic systems.

Rationale: Seeking domestic water without respect to existing septic/drain field systems has the potential of contaminating the domestic water or negatively impacting existing wells.

Policy CF 1.12: Standards shall be reviewed to ensure appropriate treatment and disposal of stormwater, and sewer and industrial waste to protect domestic water sources from degradation.

Rationale: Storm water, industrial and sewage discharges are necessary but must be accomplished in an environmentally safe manner.

Sanitary Sewer Systems

Policy CF 1.13: Encourage the development and maintenance of waste treatment and disposal systems where appropriate that will support the future development of the County.

Rationale: Obtaining funding and site approval for sanitary waste treatment and solid waste disposal facilities is typically a lengthy process. Projected growth of the area and distance of potential service from existing facilities should be periodically re-evaluated to ensure that these critical needs will be met in the long term. Also, systems that are developed should be built to ensure their longevity both from a structural/operational standpoint and an environmental perspective.

Policy CF 1.14: The management of waste water shall, both in conveyance and treatment, be environmentally safe, meet all federal, state and county legal requirements and support the orderly development of the County.

Rationale: Conscientious management in the conveyance and treatment of wastewater can prevent significant negative environmental impacts.

Policy CF 1.15: In the review of sanitary sewer plans supplied by purveyors for review the County shall consider of Land Use and Capital Facility Elements of the Comprehensive Plan.

Rationale: Effective comprehensive planning requires consistency among plan elements and plans.

Policy CF 1.16: The County shall provide referrals to the cities of Chelan and Wenatchee, for development proposals which will utilize public sewer systems whose effluent will be treated by the cities.

Rationale: This will enable the cities to adequately monitor sewer treatment plant capacity impacts.

Policy CF 1.17: Provide referrals to purveyors of service during the development review process.

Rationale: Providing these entities referrals will help to ensure that adequate provisions for necessary services are provided.

Solid Waste

Policy CF 1.18: The County should consider participation in a region-wide study of the solid and moderate risk hazardous waste disposal options available and implement the option(s), which will be most favorable from a long-term cost-benefit and public health standpoint. This study should explore innovative approaches to solid waste disposal.

Rationale: Chelan County and Douglas County utilize the same solid waste disposal facility. Because of this and the close proximity of communities in this area, it is important to coordinate solid waste management. The Chelan County Attitude Survey ranked solid waste disposal the third most public service in need of improvement, behind streets/roads and law enforcement. The volume of solid waste generated is an increasing problem.

Policy CF 1.19: The County should coordinate with other jurisdictions in the development of recycling programs to reduce waste and to protect the environment.

Rationale: A recycling program would reduce the amount of solid waste for disposal and promote the wise-use of our resources.

Policy CF 1.20: The County should support a multi-jurisdictional approach moderate risk hazardous waste disposal.

Rationale: This policy urges governmental entities in the region to give a high priority to instituting a medium hazardous waste collection program for appropriate disposal at a designated facility. In addition to legal requirements, this policy recognizes that the proper collection and disposal of medium hazardous waste is in the interest of public health and safety. This policy does not include nuclear waste disposal, which is not considered appropriate in the County.

Policy CF 1.21: Chelan County should work with the solid waste-contracting agency to take an active role in providing opportunities for the community to regularly and efficiently dispose of household moderate risk waste and agricultural hazardous waste material.

Rationale: A private company provides solid waste collection and disposal in Chelan County. This policy is intended to stress the importance of providing opportunities for disposal of household moderate risk waste material and agricultural industry generated hazardous waste.

Policy CF 1.22: A multi-jurisdictional plan for solid waste disposal for the County should be coordinated with the Chelan Solid Waste Management Plan.

Rationale: Cooperation in solid waste management planning and implementation is necessary to solve regional waste disposal problems.

Storm-Water Systems

Policy CF 1.23: The County should develop consistent standards for development in the County, which recognizes the importance of controlling stormwater runoff. The standards should address the importance of maintaining natural drainage systems including rivers, creeks, and canyons.

Rationale: Appropriate standards for stormwater runoff for development are necessary to protect public and private resources.

Schools

Policy CF 1.24: The County and local jurisdictions shall coordinate with the school districts to examine the impacts of growth and where appropriate implement impact fees or other mechanisms designed to offset those impacts.

Rationale: A quality school system is vital to the future of the County. Facilities and services should be up-to-date and consider long-term trends.

Policy CF 1.25: The County shall consider comments from the school districts when reviewing new development proposals.

Rationale: It is the intention of this policy that impacts to the school districts as a result of development be considered and that the developer has the responsibility to mitigate the impact.

Parks and Recreation Facilities

Policy CF 1.26: Encourage the continued maintenance of parks and recreation facilities.

Rationale: Park and recreation facilities contribute to making the County a more enjoyable place to live and visit.

Policy CF 1.27: Encourage the continued expansion of parks and recreation facilities to meet the needs of area residents and visitors.

Rationale: Access to parks, recreation facilities, and open spaces, contributes to a higher quality of life for area residents and makes the County a more enjoyable place to live and visit.

Law Enforcement

Policy CF 1.28: Continue to support and improve where necessary, the Chelan County Sheriff's Office ability to provide adequate law enforcement services to the County in terms of quantity and quality of facilities, equipment and manpower.

Rationale: The Sheriff's Office needs to be maintained and improved to meet law enforcement needs, as the County continues to develop.

Fire Protection

Policy CF 1.29: Development must conform to all applicable requirements of the Uniform Fire Code, or alternatives as approved and administered by the Chelan County Fire Marshall.

Rationale: Provisions must be made for the protection of life and property from fire.

Policy CF 1.30: Chelan County shall adopt the sections of the Uniform Fire Code dealing with the provision for fire department access.

Rationale: Basic provisions are necessary to assure adequate life/safety requirements.

Policy CF 1.31: Continue to support and improve where necessary, the Chelan County Fire Districts ability to provide adequate fire protection to their service areas in the County area in terms of quantity and quality of facilities, equipment and manpower.

Rationale: The fire districts need to be maintained and improved to meet fire protection service needs, as the County continues to develop.

Policy CF 1.32: The County shall develop a program of fire inspections for all structures, open to the public or for overnight accommodations.

Rationale: Older buildings or buildings which have undergone a change in use need to be inspected for fire risk and corrective actions taken as necessary. Newer buildings, although presumably inspected during the permit process, should be reviewed on a periodic basis.

Policy CF 1.33: Clearing operations associated with subdivision development, building construction, and forest harvesting should include a requirement that vegetative debris be properly disposed of.

Rationale: Debris piles contribute to increased potential fire hazard. Increased fuel results in more intense burning that can make fire control and suppression more difficult.

Policy CF 1.34: Mutual aid agreements between city, county, state and federal agencies should be maintained to provide coordinated fire protection to best serve the County.

Rationale: A large part of the County is not within a fire protection district. It is essential to the public safety in the County that fire protection be coordinated between all available fire suppression agencies.

Health Care

Policy CF 1.35: The County shall encourage the continued availability of responsive, public and private health care programs and facilities to meet present and future needs.

Rationale: Health care planning needs to adjust to the population it serves. The senior citizen population (65 years and older) increased 8.6% from 1980 to 1990. While the school age population increased 2.8%. Health care planning must adjust to these changes and the expected growth of the area.

Policy CF 1.36: Encourage the continued support of volunteer ambulance services.

Rationale: Volunteer ambulance service plays an important part of the emergency/life safety response in the County.

Public Buildings and Facilities

Policy CF 1.37: Public facilities should be located and built so that they are accessible to all segments of the population.

Rationale: Public facility planning should consider convenient transportation and pedestrian access, and access for those with special needs.

Policy CF 1.38: Encourage the use of energy conservation design strategies in new construction and the rehabilitation of public facility structures.

Rationale: Energy conservation design strategies for public facilities will help to conserve resources and maintain budgets within anticipated available funding capacities.

PROVISIONS FOR ADEQUATE FACILITIES AND SERVICES IN CONJUNCTION WITH LAND USE

GOAL CF 2: Plan and provide for adequate public facilities and services to serve the planned land use patterns of the county.

Goal Rationale: Without the support of necessary public facilities and services, desired land use patterns outlined in the comprehensive plan may not be achieved.

Policy CF 2.1: Where feasible, easements for sewer and water systems should be secured to loop sewer and water systems along a logical alignment when future development occurs.

Rationale: Looped sewer and water systems provide for a more efficient and cost effective provision of services.

Policy CF 2.2: Encourage land use patterns that will minimize the cost of providing public facilities and services in the future.

Rationale: Concentrating development within urban growth areas where adequate public facilities and services exist will allow those facilities and services to be provided in a more efficient manner.

Policy CF 2.3: Capital facilities should be sized to meet anticipated growth of the service area.

Rationale: Capital facilities plans should consider the anticipated growth of service areas to assure that new facilities do not become obsolete due to under-sizing which could result in untimely expansion.

Policy CF 2.4: Public facilities and services should be designed in such a way that they are in keeping with the rural and scenic character of the County.

Rationale: Rural lifestyle was listed by 63% of the respondents in the Chelan County Attitude Survey as being the most important reason for living in Chelan County. Maintaining the rural characteristics of the planning area should be a strong consideration when reviewing the design and location of public facilities and services.

Policy CF 2.5: Necessary public facilities and services may be provided for the redevelopment, in-fill and development of existing commercial, mixed use, residential, shoreline and industrial sites outside of urban growth areas consistent with the GMA. The provision of such services shall not be provided in a manner, which permits low-density sprawl outside of the designated area.

Rationale: The Growth Management Act allows for the provision of necessary public facilities and services for intensely developed rural areas.

Policy CF 2.8: Urban governmental services may be extended to rural areas in those limited circumstances shown to be necessary to protect basic public health and safety and the environment; as provided for by RCW 36.70A.070(5)(d); and when such services are financially supportable at rural densities and do not permit urban development outside of existing intensely developed rural areas.

Rationale: The Growth Management Act allows for the provision of urban governmental services in rural areas where it is necessary to protect basic public health and safety, and the environment.

Goal CF 3: Ensure that funding for necessary public facilities and services is identified and that the mechanisms for the collection of fees or revenue are established.

Goal Rationale: Adequate funding for public facilities and services and the mechanisms to attain needed funding should be identified in order to ensure that necessary public facilities and services can be provided for.

Policy CF 3.1: Provide and maintain a six year plan that will finance needed capital facilities within projected funding capacities and identifies sources for such purposes.

Rationale: The Growth Management Act requires local jurisdictions planning under the act to provide a six-year financing plan that identifies sources of funding for needed capital facilities

Policy CF 3.2: Where appropriate, utilize innovative financing strategies for capital improvements, which minimize the financial cost to taxpayers and provide for the equitable assignment of costs between existing and new development.

Rationale: Using a variety of alternatives for financing capital improvements will provide a more fair distribution of costs to County residents.

Policy CF 3.3: On a case by case basis, to minimize the potential economic impact of annexation activities on local government entities, consideration should be given

to implementing an inter-jurisdictional analysis and process for development agreements or contracts which:

1. Compensate the County for loss of tax revenue, from annexation of significant industrial and commercial areas, for the effected budget cycle and/or
2. Compensate the city for the cost of providing services and maintenance of infrastructure to newly annexed areas during the period prior to the change in dispensation of full tax revenue. This may include contracting with the County to provide services to newly annexed areas during this interim period.

Rationale: Developing agreements between the County and cities would minimize the potential impacts of annexation activities in the future.

Policy CF 3.4: Impact fees, as provided for under RCW 82.02, shall be considered as a means to assure that new development pay its share of the cost of improvements necessitated by the development and contribute to the overall financing of capital improvements.

Rationale: Impact fees directly assign a proportionate share of the cost of development to those who will benefit from capital improvements.

Policy CF 3.5: Capital facilities planning should encourage shared responsibilities for financing projects among and between local governments, utility purveyors, special purpose districts and the private sector.

Rationale: Coordination of capital facility planning would provide for more efficient, and therefore less costly infrastructure improvements.

Policy CF 3.6: Encourage the multiple use of public facilities.

Rationale: Public facilities designed for multiple use and/or seasons can be more cost effective and provide additional service to residents and visitors.

Policy CF 3.7: Development should carry a proportionate share of the cost for extending and increasing the capacity of needed public facilities and services, in the absence of impact fees.

Rationale: Existing users should not be responsible for costs associated with collection and distribution systems to serve new development. On the other hand, new development should not bear the total cost of new treatment or production facilities that benefit existing users.

Policy CF 3.8: The land use element and desired levels of service should be reassessed if funding falls short of meeting existing needs and to ensure that the land use element, capital facilities element and financing plan within the capital facilities element are coordinated and consistent.

Rationale: This will help to ensure that growth and needed public facilities and services are provided for in an efficient and sustainable manner.

GOAL CF 4: The County shall provide a means for the siting of essential public facilities.

Goal Rationale: Essential public facilities include those facilities that are typically difficult to site, such as airports, state education facilities and state or regional transportation facilities, state and local correctional facilities, solid waste handling facilities and in-patient facilities including substance abuse facilities, mental health facilities, secure transitional facilities, group homes and other facilities as defined by RCW. The comprehensive plan must make provisions for the siting of essential public facilities (RCW 36.70A.200).

Policy CF 4.1: Essential public facilities which are identified by the County, by regional agreement, or by the Office of Financial Management should be subject to the following siting process. A review of possible essential public facilities shall occur at least every six years. When essential public facilities are identified and proposed the local government(s) will:

Appoint an advisory County-Wide Project Analysis and Site Evaluation Committee composed of citizen members selected to represent a broad range of interest groups. It will be this committee's responsibility to develop specific siting criteria for the proposed project and to identify, analyze, and rank potential project sites. In addition the committee shall establish a reasonable time frame for completion of the task.

Insure public involvement through the use of timely press releases, newspaper notices, public information meetings and public hearings.

Notify adjacent jurisdiction of the proposed project and solicit review and comment on the recommendations made by the Advisory Project Analysis and Site Evaluation Committee.

Rationale: This process will insure that there is a process established for the siting of essential public facilities and that there is an equitable distribution of these types of uses.

Policy CF 4.2: As identified essential public facilities are addressed, standards should be generated to insure that reasonable compatibility with other land uses could be achieved.

Rationale: Development of siting standards for essential public facilities will help to insure that they are appropriately sited and that the impacts to surrounding land uses will be mitigated.

Policy CF 4.3: Essential public facilities should not locate in Resource Lands or Critical Areas, unless necessary and where compatible.

Rationale: Resource Lands and Critical Areas are not the appropriate areas for the siting of most essential public facilities.

Policy CF 4.4: Essential public facilities should not be located beyond Urban Growth Areas unless they are self-contained and do not require the extension of urban governmental services.

Rationale: Most essential public facilities require urban governmental services.

Policy CF 4.5: Coordinate siting of regional essential public facilities with other counties in the region.

Rationale: Many essential public facilities in Chelan County may serve a regional purpose. This is an important consideration due to the expense involved in developing and maintaining these facilities.

UTILITIES ELEMENT

I. INTRODUCTION

The GMA requires the inclusion of a Utilities Element in local comprehensive plans. The Utilities Element is intended to assure integration of the general location and capacity of existing and proposed utility facilities with the goals and policies of the Land Use Element of the plan.

The Utilities Element has been developed in accordance with Section 36.70A.070 of the Growth Management Act and WAC 365-195-320 to address utility services in the County. The Utilities Element is primarily intended to assure coordination of land use planning and infrastructure planning between the County, local jurisdictions, and utility purveyors such as natural gas, electrical service, and telecommunications
The Utilities Element has also been developed in accordance with the county-wide planning policies and has been integrated with all other planning elements to ensure consistency throughout the comprehensive plan. The Utilities Element specifically considers the general location, proposed location, and capacity of all existing and proposed utilities.

It is intended for this plan to provide a brief description of the different public and private utility purveyors that operate in Chelan County, and to encourage these individual purveyors to consider the goals and policies of this comprehensive plan when contemplating capital improvements to their systems. Because the County acts as a coordinator for population growth and related development, this plan encourages these utility purveyors to maintain close communication with the County in regard to the capacity of their systems and to coordinate and review the development of each others plans. The goals and policies contained within this Element shall also be recognized in the formation of development regulations for the County.

II. INVENTORY AND ANALYSIS

The inventory presented in this Element provides information useful to the planning process. It does not include all of the data or information that was gathered, but has presented the relevant information in an organized and useful format. The inventory includes: Telecommunications, Electrical Service and Natural Gas. Additional data is listed in the bibliography and can be obtained at the County. Many public and private agencies are involved in regulating, coordination, production, delivery and supply of utility services. This section of the Element identifies those providers and provides information on the locations of where the services are provided.

SERVICES

Telecommunication Services

Television Service:

Cable television is provided in various locations throughout the County by various service providers.

In the Chelan – Manson Study Area, there are currently three cable television purveyors, Millennium Cable, Sun Cable, and T.V. Improvement District #1. These purveyors provide service to portions of the study area. Cable television is available in the City of Chelan, North and South Shore of Lake Chelan, Community of Manson, and Chelan Falls.

In the Entiat Valley Study Area, service is available in the City of Entiat and surrounding area through Millennium Cable, and in Navarre Coulee through Sun Cable. In the remainder of the Study Area, cable television service is not available.

Television service in the Malaga-Stemilt-Squilchuck Study Area is provided by Falcon Cable and Sun County Cable. Falcon Cable is available in the Squilchuck corridor up to the Wenatchee Heights turn-off only. They have indicated that they may extend service into Wenatchee Heights, and farther up Squilchuck Road to the Forest Ridge Development. Sun County Cable provides service in the Malaga area. At this time they have no plans to increase their service in this area.

In the Lower and Upper Wenatchee River Valley Study Areas cable television service is provided by Falcon Cable. Cable is available in many areas from the Sunnyslope area to the Icicle Canyon area near Leavenworth. Service is also provided to portions of Fairview and Hay Canyons and the Blewett Pass area.

There is no cable television service to the Plain/Lake Wenatchee a area. Provisions of service to the area have been explored by at least one purveyor. In the Stehekin Valley, no cable service presently exists or is contemplated in the planning horizon. In the areas not presently served by a cable television provider, small dish satellite technology is utilized for television service.

Telephone/Cellular Phone

Local telephone service has been provided to the County by GTE Northwest since 1952. There are various facilities located throughout the County and the cities within Chelan County. According to GTE, the delivery of telecommunication services sometimes does not coincide with the exact location of customers. Many of the telecommunication facilities, including overhead and underground delivery lines, are co-located with those of the electrical power provider. In the Stehekin Study Area, the National Park Service provides a satellite operated, coinless public telephone at the Stehekin Landing.

Cellular telephone service has been provided in Chelan County since 1991. Both Air Touch Cellular and Cellular One provide this service in the County. Facilities related to cellular telephone service include low-powered transmitting antennas and a central computer called a telephone switching office. The mobile nature of the service requires the installation of transmitting antennas strategically placed to transmit the signal from the mobile unit to the switching center.

Air Touch Cellular presently has cellular towers sited in the following locations in Chelan County:

1. Wenatchee Heights
2. Blagg Mountain – Leavenworth
3. Nason Creek Area
4. Stevens Pass – summit
5. Chelan Butte
6. Natapoc - Lake Wenatchee
7. Cashmere
8. Wenatchee

Air Touch Cellular also has a cellular tower located on Badger Mountain in Douglas County that provides service to the north Wenatchee and Entiat areas.

Additional cellular tower sites being considered by Air Touch Cellular include the Wenatchee Urban area and the Blewett Pass area. The Blewett Pass area presently does not have coverage by Air Touch Cellular.

Cellular One presently has cellular towers sited in the following locations in Chelan County:

1. Stevens Pass – summit
2. Round Mountain – 11 miles east of Stevens Pass summit
3. Natapoc – Lake Wenatchee
4. Boundary Butte – Leavenworth
5. Diamond Head – Blewett Pass
6. Blewett Pass – summit
7. Cashmere – Stine Hill Rd.
8. Laurel – Wenatchee Valley
9. Chelan Butte

Cellular One also has two cellular tower sites on Badger Mountain located in Douglas County serving the Wenatchee Valley.

Cellular One is anticipating additional sites in the following areas: Entiat, Monitor and within the City of Wenatchee.

With the movement to digital technology from analog technology, cellular tower siting is required to be located at lower elevation levels.

The telecommunications industry will continue to have tremendous advances in technology. Both cellular and optical fiber technologies are transforming service delivery in Chelan County. As the County grows and technological advances are made, telecommunication facilities will be upgraded to ensure adequate service levels.

Natural Gas:
Cascade Natural Gas currently provides service to approximately 2000 residential customers in Chelan County. The major transmission line of the Northwest Pipeline Corporation natural gas utility comes from the southeastern portion of the County near Alcoa. The line generally follows the alignment of the Colockum Road/Malaga-Alcoa Highway.

In the Malaga-Stemilt-Squilchuck Study Area natural gas is currently available along the transmission line that runs near the Malaga-Alcoa Highway and within the old town-site of Malaga. No homes in the old town-site are connected to the line, although; along the highway several homes are connected to the line. Fire District #1 also has natural gas extended to their fire station on West Malaga Road.

Cascade Natural Gas also provides service to the Sunnyslope/Olds Station area with a 6 inch line that crosses the Wenatchee River at the railroad bridge. A line located along

Easy Street serves residential customers in the Sunnyslope area. The system was updated in 1997 and a new line installed providing service up to the Tree Top plant located on Highway 97A. Future plans include extension of this line to eventually serve the Chelan and Entiat Area.

Extension of service into new areas is on a demand basis. Cascade Natural Gas will provide the extension of the service and will enter into an agreement with the requesting party for reimbursement of the improvement. As additional customers connect to the extended line the initiating party is reimbursed. Expansion of the natural gas system i.e., the location, capacity, and timing, will depend greatly on opportunities for expansion and on how quickly the County grows. In addition, any route taken to provide service will depend on right-of way permitting, environmental impact, and the opportunities to install gas mains with new development, highway improvements or other utilities.

Liquid Petroleum Gas is provided to a number of customers in the County by three different suppliers: Empire Gas, Amerigas and Wenatchee Petroleum. Growth of this fuel as an alternative to electricity will depend on the ability of the PUD to provide low cost electrical service to the County.

Electrical Utilities:
All public electric power in the County is provided by the Chelan County Public Utility District #1 (PUD), a special purpose public agency. The District is governed by an elected board of commissioners. The District is a publicly owned municipal corporation of the State of Washington. The PUD, as a public utility, is required to provide service to everyone in its service area. As of June 1999, the number of active meters is 37,614 and this number is expected to reach approximately 67,000 in a 20 year time period. The PUD is authorized to provide electric service to their owners at cost and without profit. According to the PUD, there currently is capacity to meet existing demand for both the incorporated areas of the County as well as the rural areas.

In 1998, the District hired the firm, Electrical Consultants, Inc. to conduct a long-range transmission planning study. The scope of the study included system planning and major station facilities. The study looked at contractual agreements and obligations, load forecasts and basic planning and design criteria. Some of the anticipated problems the study identified are low transmission system voltages in the Stevens Pass area, Chelan Union Valley area, and Sunnyslope area under certain operating conditions in the future. In addition, it is anticipated that several transformers and line sections will be overloaded with a projected annual load growth rate of 3.9%. This plan and subsequent updates are hereby adopted by reference.

The Districts goal is to provide uninterrupted electrical service within their service area. To satisfy this goal, the PUD has in place electrical sub-stations at the following locations:

1. Wapato
2. Manson
3. Union Valley
4. Chelan
5. Chelan Falls Switchyard
6. Winesap
7. Entiat
8. Entiat Valley
9. Rocky Reach Switchyard
10. Rocky Reach
11. Malaga
12. Kawecki (Malaga area)
13. Valhalla McKenzie (Malaga area)

14. Alcoa
15. Squilchuck
16. Olds Station
17. Sunnyslope
18. Mission (Cashmere area)
19. Sunset (Cashmere area)
20. Peshastin/Dryden
21. Anderson Canyon Switchyard (Peshastin)
22. Leavenworth
23. Plain
24. Lake Wenatchee
25. Winton Mill
26. Coles Corner
27. Berne (Stevens Pass)
28. Summit (Stevens Pass Summit)

As of August 1999, the following capital improvement projects are tentatively in the District's 20 year Long Range Plan:

1. Lake Crossing Substation – located in Manson to meet the projected load growth demand. (Tentitive completion date 2012)
2. Boyd Switching Station – Located in the Chelan Boyd District area to meet the projected load growth demand and also to mitigate the projected low transmission system voltage. (Tentative construction date 2008)
3. South Shore Substation – Located on the Chelan Highway, near the Hawk's Meadow area to meet the projected load growth demand and minimize the projected low distribution system voltage. (To be completed in 2007)
4. South Wenatchee Substation – Located along Crawford St. to meet projected load growth demand. (To be completed as needed)
5. Castlerock Substation – Located at the western end of Castlerock St. in Wenatchee to meet the projected load growth demand. (To be completed in 2007)
6. Monitor Switching Station – Located on Easy Street, approximately ½ mile east of Boswell's Furniture to meet the projected 10% load growth demand in the Sunnyslope area and also to mitigate the projected low transmission system voltage. (To be completed in 2003)
7. Old Mill Substation – Located at the old Peshastin Mill site to meet the projected load growth demand. (To be completed as needed)
8. Transmission Line Construction Projects – Short transmission lines to be built to serve all future substations mentioned above.

These substations and switching stations will be built on existing PUD property or property acquired by leasing or purchase. The capital cost and maintenance expense of establishing new substations will be borne by the PUD.

The Stehekin Study Area has a hydroelectric plant which is augmented by three diesel generators. The electric plant is located on Company Creek and only supplies the Stehekin Valley.

Normal base load is carried by the 200 kw hydro plant. When peak loads exceed the capacity of the hydro unit, an auto start relay starts a diesel driven 75 kw induction generator. The system is not on the Northwest Power Grid; it is a totally independent system.

The Stehekin power system has two synchronous diesel generators in addition to the one induction unit. There is a total capacity of 775kw with the hydroelectric and generators combined. In the winter when temperatures drop toward zero, the stream

flow in Company Creek also drops and the hydro intake begins to ice up. When this condition occurs, the output of the hydro declines and is eventually taken out of service. This condition usually occurs every winter, with the duration of the outages varying. The National Park Service maintains an emergency backup system for federally owned facilities at Stehekin Landing.

III. GOALS AND POLICIES

GOAL UE1: Enhance the efficiency and quality of service from utility providers through the coordination of utility, land use, and transportation planning.

Policy UE 1.1: Encourage effective and timely coordination of all public and private utility trenching activities.

Rationale: Coordination of utility trenching activities will allow less costly and less frequent right-of-way repairs and fewer inconveniences to the public.

Policy UE 1.2: Encourage system design practices intended to minimize the number and duration of interruptions to customer service.

Rationale: Minimizing interruptions is beneficial to the public.

Policy UE 1.3: Promote the consolidation of utility facilities where feasible.

Rationale: Appropriate consolidation will reduce the overall costs and inconveniences to the public. Examples of facilities that could be shared are: towers, poles, antennas, substation sites, trenches, and easements.

Policy UE 1.4: Chelan County and local jurisdictions should coordinate their roadway projects with planned utility expansions, improvements or extensions where shared sites or right-of-ways may be appropriate. Chelan County shall encourage utility purveyors to coordinate their utility expansions, extensions or improvements where shared sites or right-of-ways may be appropriate.

Rationale: Coordination will allow consideration for the appropriate locations of utilities and timing of utility installations.

Policy UE 1.5: When a proposed development requires utility extensions across State or Federal lands, the County shall require assurance that adequate right of ways or easements are provided at the time of development

Rationale: Assurance of adequate right of way or easements helps to ensure that necessary services for development are provided.

Policy UE 1.6: Development regulations shall provide for adequate utility right of ways or easements concurrent with development.

Rationale: Assurance of adequate right of way or easements helps to ensure that necessary services for development are provided.

Policy UE 1.7: Where practical, the County will provide timely notice to utilities to encourage the coordination of public and private utility trenching activities during new construction and maintenance and repair of existing roads.

GOAL UE 2: Provide utilities in a manner which maintains the visual qualities of the County.

Policy UE 2.1: Require the under grounding of all new electrical distribution and communication lines for development, where reasonably feasible.

Rationale: Utilities placed underground help protect the safety of the citizens, may reduce maintenance costs, and maintain a less cluttered environment.

Policy UE 2.2: Encourage the under grounding of all existing electrical distribution and communication lines where reasonably feasible.

Rationale: Utilities placed underground help protect the safety of the citizens, may reduce maintenance costs, and maintain a less cluttered environment.

Policy UE 2.3: Require the placement of cellular communication facilities in a manner which minimizes adverse impacts to surrounding land uses.

Rationale: Compatibility with adjacent land uses shall be considered when reviewing such facilities.

Policy UE 2.4: The County will ensure that all maintenance, repair, installation, and replacement activities for utility facilities are consistent with the County's critical area regulations.

Rationale: Where placement of utility facilities within critical areas is necessary, development shall be consistent with the requirements of the County's critical area regulations.

Policy UE 2.5: Development regulations shall provide for adequate buffering and screening of utility facilities where such facilities may have a negative visual impact on surrounding land uses or where public access to such facilities should be limited for safety concerns.

GOAL UE 3: Ensure that adequate public utilities are provided to meet the projected and desired land use patterns within the County.

Policy UE 3.1: Encourage energy conservation and the use of cost effective alternative energy sources such as solar and wind power.

Rationale: Energy conservation is essential as the County accommodates more people. The utilization of other energy sources should be explored and implemented where feasible.

Policy UE 3.2: Encourage the use of energy conservation design strategies in new construction and rehabilitation of residential, commercial, industrial and public facility structures.

Rationale: As the County develops, the demand for energy will grow. Conservation is vital to continue serving the County and maintain productive and livable lifestyles.

Policy UE 3.3: The extension of utilities should be sized to meet anticipated growth of the County.

Rationale: Utilities should consider the anticipated growth of the County to assure that new facilities do not become obsolete .

Policy UE 3.4: Development regulations should be flexible and receptive to innovations and advances in utility technology.

Rationale: As the utility industry advances in technology it is important for local permitting agencies to keep their standards and permitting requirements current and applicable.

Policy UE 3.5: Stehekin Area: Encourage the continued use and maintenance of hydroelectric facilities and the enhancement of hydroelectric power capabilities through system efficiency and the protection of facilities from erosion and flooding.

Policy UE 3.6: Stehekin Area: Decrease future reliance upon diesel powered electricity by encouraging the use of alternative energy sources.

Transportation Element

Prepared by:
Transpo Group
11730 118th Avenue NE, Suite 600
Kirkland, WA 98034-7120
Phone: 425-821-3665
Fax: 425-825-8434
www.transporgroup.com

In association with: Berk and Associates, Read Wagoner, LLC

MAY 2009

Table of Contents

EXECUTIVE SUMMARY E-1
Introduction and Objectives E-1
Planning Process and Stakeholder Engagement E-1
Transportation Issues, Priorities and Policies E-2
Countywide Transportation Issues E-2
Priorities E-3
Policies E-4
Planning for Growth E-4
Transportation System Needs & Improvement Strategies E-5
Sunnyslope Subarea E-6
Wenatchee Foothills Subarea E-6
Malaga Subarea E-6
Entiat Subarea E-6
Chelan Subarea E-6
Manson Subarea E-6
Cashmere/Monitor Subarea E-6
Peshastin/Dryden Subarea E-6
Leavenworth Subarea E-6
Plain/Lake Wenatchee Subarea E-6
Finance & Implementation Program E-6
Project and Program Costs E-7
Transportation Revenues E-8
Existing Revenues versus Costs E-9
Funding Strategy E-10
Finance Summary E-13
Implementation Requirements E-14

CHAPTER 1 – INTRODUCTION 1-1
Background 1-1
Purpose 1-2
Growth Management Act 1-2
Objectives 1-3
Process Overview 1-3
Organization of the Transportation Element 1-4
Study Area 1-4

CHAPTER 2 – RELATIONSHIP TO OTHER PLANS 2-1
Regional Land Use Growth 2-1
Residential Growth 2-1
Employment Growth 2-4
Subarea Plans 2-5
Sunnyslope 2-5
Malaga 2-5
Manson 2-6
Peshastin 2-6
Wenatchee Foothills 2-7
Lower Lake Chelan Basin Regional Planning Study 2-7
Other Transportation Planning Efforts 2-7
Washington Transportation Plan 2-8
Wenatchee Valley Transportation Plan 2-8
Corridor Plans 2-9
Local Agency Transportation Plans 2-9
Public Transportation Plans 2-10
Upper Valley Regional Trails Plans 2-10

CHAPTER 3 – AGENCY AND PUBLIC INVOLVEMENT 3-1
Steering Committee 3-2
Stakeholder Advisory Group 3-3
Speakers Bureau 3-4
Open Houses 3-4
Web Site 3-6

CHAPTER 4 – GOALS AND POLICIES 4-1
1. Overall System 4-1
2. Coordination and Consistency 4-1
3. Roadway System 4-1
4. Air Transportation 4-2
5. Rail Transportation 4-3
6. Freight and Goods 4-3
7. Non-motorized Transportation 4-3
8. Transit and Travel Demand Management 4-4
9. Economic Development 4-4
10. Coordination with Land Use 4-5
11. Environment and Energy 4-5
12. Implementation and Funding 4-5

CHAPTER 5 - EXISTING CONDITIONS 5-1
Roadway System 5-1
Functional Classification 5-1
Traffic Volumes 5-4
Traffic Safety 5-10
Truck Routes 5-12
Existing Roadway System Deficiencies 5-13
Transit System 5-19
Transit Services 5-19
Park-and-Ride Lots 5-21
Other Facilities 5-22
Existing Transit Deficiencies 5-22
Non-Motorized System 5-23
Safety Data 5-25
Existing Non-Motorized Deficiencies 5-25
Other Modes 5-26
Air Transportation 5-26
Rail Transportation 5-29
Water Transportation 5-30

CHAPTER 6 – TRAVEL FORECASTING METHODOLOGY 6-1
Population Forecasts 6-1
Commercial and Industrial Activity 6-2
State Highway Traffic Data 6-2
Estimated Annual Growth Rates 6-3
20-Year (2028) Traffic Forecasts 6-3

CHAPTER 7 – TRANSPORTATION PRIORITIES 7-1
Regional Priorities 7-1
Countywide Issues 7-2
Defining Priorities 7-3
Project Prioritization Process 7-5

CHAPTER 8 – TRANSPORTATION IMPROVEMENT PROJECTS 8-1
Sunnyslope Subarea 8-1
State Highway Improvements 8-2
County Roadway Improvements 8-2

Non-motorized Improvements 8-5
Transit Improvements 8-6
Wenatchee Foothills 8-6
County Roadway Improvements 8-8
Non-motorized Improvements 8-8
Malaga Subarea 8-9
County Roadway Improvements 8-11
Non-motorized Improvements 8-12
Entiat Subarea 8-12
State Highway Improvements 8-12
County Roadway Improvements 8-13
Non-motorized Improvements 8-13
Transit Improvements 8-13
Waterborne Transportation Improvements 8-13
Chelan Subarea 8-15
State Highway Improvements 8-15
County Roadway Improvements 8-19
City Roadway Improvements 8-20
Non-motorized Improvements 8-20
Waterborne 8-20
Manson Subarea 8-21
State Highway Improvements 8-21
County Roadway Improvements 8-24
Non-motorized Improvements 8-24
Transit Improvements 8-24
Waterborne Transportation Improvements 8-24
Cashmere/Monitor Subarea 8-25
State Highway Improvements 8-25
County Roadway Improvements 8-25
Non-motorized Improvements 8-28
Transit Improvements 8-29
Peshastin/Dryden Subarea 8-29
State Highway Improvements 8-30
County Roadway Improvements 8-30
Non-motorized Improvements 8-33
Transit Improvements 8-33
Leavenworth Subarea 8-33
State Highway Improvements 8-34
County Roadway Improvements 8-39
City Roadway Improvements 8-39
Non-motorized Improvements 8-40
Transit Improvements 8-41
Plain/Lake Wenatchee Subarea 8-41
County Roadway Improvements 8-43
Non-motorized Improvements 8-43

CHAPTER 9 – FINANCE AND IMPLEMENTATION PROGRAM 9-1
Project and Program Costs 9-1
Maintenance and Operations Costs 9-3
Reconstruction and Non-motorized Enhancements 9-3
New Construction or Upgraded Transportation Improvements to Serve Growth 9-4
Multi-Agency Regional Improvement Projects 9-4
Transportation Revenues 9-4
Baseline Revenue Projections 9-4
Other Potential Revenue Sources 9-10
Funding Strategy 9-13

Funding from New Development 9-14
Sustaining the County's Road Levy 9-22
Pursuing Grants and Other Funding 9-22
Funding Regional Transportation Improvements 9-23
Financing Summary and Reassessment Strategy 9-24
Finance Summary 9-24
Reassessment Strategy 9-26

Figures

Figure 1-1. Plan Process 1-3
Figure 1-2. Study Area 1-5
Figure 2-1. 2008 Population by Cities 2-2
Figure 2-2. Population Projections for Chelan County 2-3
Figure 2-3. Projected Population Growth (2000-2025) for Cities & UGAs, and Rural & Resource Lands 2-4
Figure 5-1. Functional Classification & 2008 Average Daily Volumes (Countywide) 5-5
Figure 5-2. Functional Classification & 2008 Average Daily Volumes (Greater Wenatchee) 5-6
Figure 5-3. Functional Classification & 2008 Average Daily Volumes (Malaga Subarea) . 5-7
Figure 5-4. Functional Classification & 2008 Average Daily Volumes (Chelan/Manson Subarea) 5-8
Figure 5-5. Functional Classification & 2008 Average Daily Volumes (Leavenworth/Peshastin/Dryden/Cashmere Subarea) 5-9
Figure 5-6. FGTS Classifications in Chelan County 5-14
Figure 5-7. Transit Routes and Facilities 5-20
Figure 5-8. Upper Wenatchee Valley Bicycle Routes 5-24
Figure 5-9. Air, Rail and Water Transportation Facilities 5-27
Figure 8-1. Sunnyslope Transportation Improvement Projects 8-3
Figure 8-2. Wenatchee Foothills Transportation Improvement Projects 8-7
Figure 8-3. Malaga Transportation Improvement Projects 8-10
Figure 8-4. Entiat Transportation Improvement Projects 8-14
Figure 8-5. Chelan Subarea Transportation Improvement Projects 8-16
Figure 8-6. City of Chelan Transportation Improvement Projects 8-17
Figure 8-7. Manson Transportation Improvement Projects 8-22
Figure 8-8. Cashmere/Monitor Transportation Improvement Projects 8-26
Figure 8-9. Peshastin/Dryden Transportation Improvement Projects 8-31
Figure 8-10. Leavenworth Subarea Transportation Improvement Projects 8-35
Figure 8-11. City of Leavenworth Transportation Improvement Projects 8-36
Figure 8-12. Plain/Lake Wenatchee Transportation Improvement Projects 8-42
Figure 9-1. Project Funding Categories 9-2
Figure 9-2. Chelan County Historical and Projected Maintenance & Operations Costs 9-3
Figure 9-3. Chelan County Per Capita Baseline Projections - Property Tax for Transportation 9-5
Figure 9-4. Chelan County Per Capita Baseline Projections – State Fuel Tax 9-6
Figure 9-5. Chelan County Per Capita Baseline Projections – State Funds 9-7
Figure 9-6. Chelan County Per Capita Baseline Projections – Federal Funds 9-8
Figure 9-7. Chelan County Projected Transportation Revenue Distribution 9-9
Figure 9-8. Transportation Development Review and Mitigation Flow Chart 9-16
Figure 9-9. Potential Transportation Impact Fee Service Areas 9-21

Tables

Table 3-1. Steering Committee Meetings 3-2
Table 3-2. Stakeholder Advisory Group Meetings 3-4
Table 5-1. Functional Classification of State Highways 5-2
Table 5-2. Functional Classification of County Roads 5-4
Table 5-3. Traffic Accident Summary for Chelan County (2005 to 2007) 5-10
Table 5-4. State Highway Accident Summary (2003 to 2007) 5-11
Table 5-5. Severity of Accidents on State Highways (2003 to 2007) 5-11
Table 5-6. FGTS T1 and T2 Classifications in Chelan County 5-12
Table 5-7. 2008 Intersection Level of Service Summary 5-17
Table 5-8. Chelan County Fixed Transit Routes and 2007 Peak Monthly Boardings 5-21
Table 5-9. Park-and-Ride Facilities in Chelan County 5-22

Table 5-10. Airport Capacity and Demand 5-28
Table 6-1. Population Forecasts by Subarea 6-2
Table 6-2. Commercial and Industrial Activity Forecasts by Subarea 6-2
Table 6-3. State Highway Traffic Growth by Subarea 6-3
Table 6-4. Final Annual Growth Rates by Subarea 6-3
Table 7-1. General List of Issues Addressed by Transportation Improvements 7-3
Table 7-2. Priorities for Chelan County 7-5
Table 7-3. Description of Priority Tiers 7-5
Table 8-1. Sunnyslope Subarea Transportation Improvement Project List 8-4
Table 8-2. Wenatchee Foothills Subarea Transportation Improvement Project List 8-8
Table 8-3. Malaga Subarea Transportation Improvement Project List 8-11
Table 8-4. Entiat Subarea Transportation Improvement Project List 8-13
Table 8-5. Chelan Subarea Transportation Improvement Project List 8-18
Table 8-6. Manson Subarea Transportation Improvement Project List 8-23
Table 8-7. Cashmere/Monitor Subarea Transportation Improvement Project List 8-27
Table 8-8. Peshastin/Dryden Subarea Transportation Improvement Project List 8-32
Table 8-9. Leavenworth Subarea Transportation Improvement Project List 8-37
Table 8-10. Plain/Lake Wenatchee Subarea Transportation Improvement Project List ... 8-41
Table 9-1. Transportation Project and Program Costs 2008 to 2027 9-1
Table 9-2. Chelan County Baseline Transportation Revenue Summary[1] 9-8
Table 9-3. Comparison of Transportation Revenues and Costs from 2008 to 2027 9-10
Table 9-4. Transportation Impact Fee Program Eligible Projects 9-18
Table 9-5. Resulting Potential Transportation Impact Fee Rates 9-20
Table 9-6. Financing Summary 9-25

Appendix Material

APPENDIX A PUBLIC INVOLVEMENT MATERIALS
APPENDIX B TRANSPORTATION PROJECT LIST AND PRIORITIES
APPENDIX C PROJECT COSTS AND METHODOLOGY
APPENDIX D TRANSPORTATION FUNDING REPORT
APPENDIX E CONCURRENCY MANAGEMENT PROGRAM REPORT
APPENDIX F TRAFFIC STUDY GUIDELINES
APPENDIX G RTPO INTERSECTION LOS SUMMARY TABLE
APPENDIX H REFERENCE MATERIAL LIST

Acknowledgements

Board of County Commissioners

District #1 - Ron Walter
District #2 - Keith Goehner
District #3 - Doug England

Steering Committee

Buell Hawkins, Former Chelan County District #3 Commissioner
Greg Pezoldt, Chelan County Public Works, Project Manager
John Guenther, Former Chelan County Community Development Director (Replaced by Lil Yanagimachi, Chelan County Planner)
Jeff Wilkens, Wenatchee Valley Transportation Council, Executive Director
Connie Krueger, City of Leavenworth, Community Development Director
Dave Honsinger, WSDOT, North-Central Planning Manager
Richard Derock, LINK Transit, Executive Director

Consultant Team

Transpo Group
Berk & Associates
ReadWagoner

Chapter 1 – Introduction

Chelan County, located midway between Seattle and Spokane, is served by State Highways US 2 and US 97 as its major connectors. The transportation network is shaped by dramatic topography with the Cascade and Chiwaukum Mountains, the Stuart Range, the Columbia and Chelan Rivers and Lake Chelan. Its 2,994 square mile area is home to approximately 72,100 people in 25,000 households, with the majority residing in Wenatchee.

Continuing growth has created the need to systematically address future transportation needs throughout Chelan County. The growing population and changing nature of the regional economy have required the County to reconfirm the transportation projects to serve both current and projected land use growth. Surrounding communities including the Cities of Wenatchee, Cashmere, Leavenworth, Entiat, and Chelan, and unincorporated urban growth areas such as Sunnyslope, Manson, and Peshastin, are also experiencing or expected to have substantial growth in the coming years. Areas outside designated urban growth areas, such as Malaga and Monitor, act as bedroom communities to the Wenatchee urban area and are already experiencing an increase in development. Growth in Chelan County includes residential housing, seasonal vacation housing, and new industrial, agriculture, retail, and tourist-based employment and activities. This recent and forecast growth continues to add pressure to the transportation system serving the County.

The Transportation Element builds off of prior planning efforts by the County, Cities, Washington State Department of Transportation (WSDOT), Wenatchee Valley Transportation Council (WVTC), LINK Transit, and urban growth areas (UGA) and limited areas of more intense rural development (LAMRID) subarea plans. All modes of transportation have been addressed, including motor vehicle, aviation, rail, transit, marine, and non-motorized. As required by the Growth Management Act, a prioritized transportation project list, financing strategies and implementation measures have been included in the Transportation Element.

Background

The Transportation Element of the Comprehensive Plan was initially developed in Year 2000. Following adoption of the Comprehensive Plan, the County completed or is currently completing a series of subarea plans for the various communities throughout the County. These stand-alone subarea plans have been prepared to guide the development within existing and proposed UGAs. Each of the separate subarea plans, along with the Comprehensive Plans for each of the cities, has created the need for a more thorough and systematic analysis of the impacts of growth within the entire County.

Although Chelan County is well-known for its orchards, the amount of farmland in Chelan County has halved over the last 45 years, from 215,646 acres at its peak in 1959 to 112,023 in 2002. Ninety-nine percent (99 percent) of the current tree fruit crop is exported out of the Chelan County by truck and rail, with approximately 30 percent exported out of the country (Smith 2004). Though orchards are still prominent where irrigation is available in the Columbia, Wenatchee, and Entiat valleys and uplands in the Lake Chelan area, challenges in the national and international tree fruit markets have led to grower, warehouse and processing consolidations, departures from farming and to changes in land use. Wineries, orchards, fruit stands, vineyards, nurseries, restaurants and lodging are becoming a successful part of a burgeoning agro-tourism industry. These changes in the regional economy also influence current and future transportation needs of Chelan County.

The growing population and changing nature of Chelan County's economy create an opportunity to realign transportation and land use needs and to identify needed improvements to the County's roadways, bridges, bicycle, pedestrian, aviation and rail facilities.

Purpose

The Transportation Element establishes a vital link between land use and County transportation facilities and services needed to meet current system deficiencies and to support future growth, economic development, recreation, and the full range of activities anticipated in the County. The anticipated types, intensity and timing of land development in Chelan County will largely determine the travel mode people choose to use. In addition, land use decisions outside of the County impact the transportation system, and attention must be paid to the anticipated trends in these peripheral areas.

The Transportation Element is a key component to the County's Comprehensive Plan. It identifies Chelan County's goals and policies for transportation as well as the County's transportation priorities, level-of-service (LOS) standards, development review process, and financial strategies. The Transportation Element was developed in accordance with the Washington State Growth Management Act.

Growth Management Act

The link between land use and transportation is a focus of the GMA. The purpose of the Transportation Element is to provide the County with a guide for transportation system improvements to meet existing and future travel needs, and a means for integrating these improvements with the State, cities, and regional transportation system.

The GMA requires that the following topics be addressed within the Transportation Element:

- Land use assumptions used in estimating travel demand
- An inventory of existing transportation facilities and services
- Level of service standards to gauge the performance of the system
- Identification of actions and requirements needed to bring existing facilities and services up to standard
- Forecasts of future traffic based on the Land Use Element
- Identification of improvements and programs needed to address current and future transportation system deficiencies, including Transportation Demand Management strategies
- A realistic multi-year financing plan that is balanced with the adopted level of service standards and the Land Use Element
- An explanation of intergovernmental coordination and regional consistency.

Local transportation elements must also include the following:

- State-owned transportation facilities in the transportation inventory
- The level of service (LOS) for state-owned transportation facilities
- Identification and assessment of GMA concurrency and the applicability to highways of statewide significance
- An estimate of the impacts to State-owned transportation facilities resulting from local land use assumptions

The Chelan County Transportation Element incorporates and addresses each of the GMA requirements for local transportation elements.

Objectives

A number of primary objectives, developed by the Steering Committee members who directed the work program, are addressed by the Transportation Element. They include:

- Engage the community in the planning process
- Establish a fundamental link between County land use and transportation facilities
- Focus on unincorporated areas of the County and links into the cities
- Consider all modes of transportation including motor vehicle, aviation, rail, transit, marine, and non-motorized
- Address future transportation needs over the next 20 years
- Prioritize transportation infrastructure for all modes
- Develop realistic finance and implementation strategies
- Refine the development review process to match community goals
- Better define the level of developer contributions

Process Overview

The update of the Transportation Element was completed in a series of steps. Figure 1-1 highlights the process that was followed in preparing the updated Transportation Element.

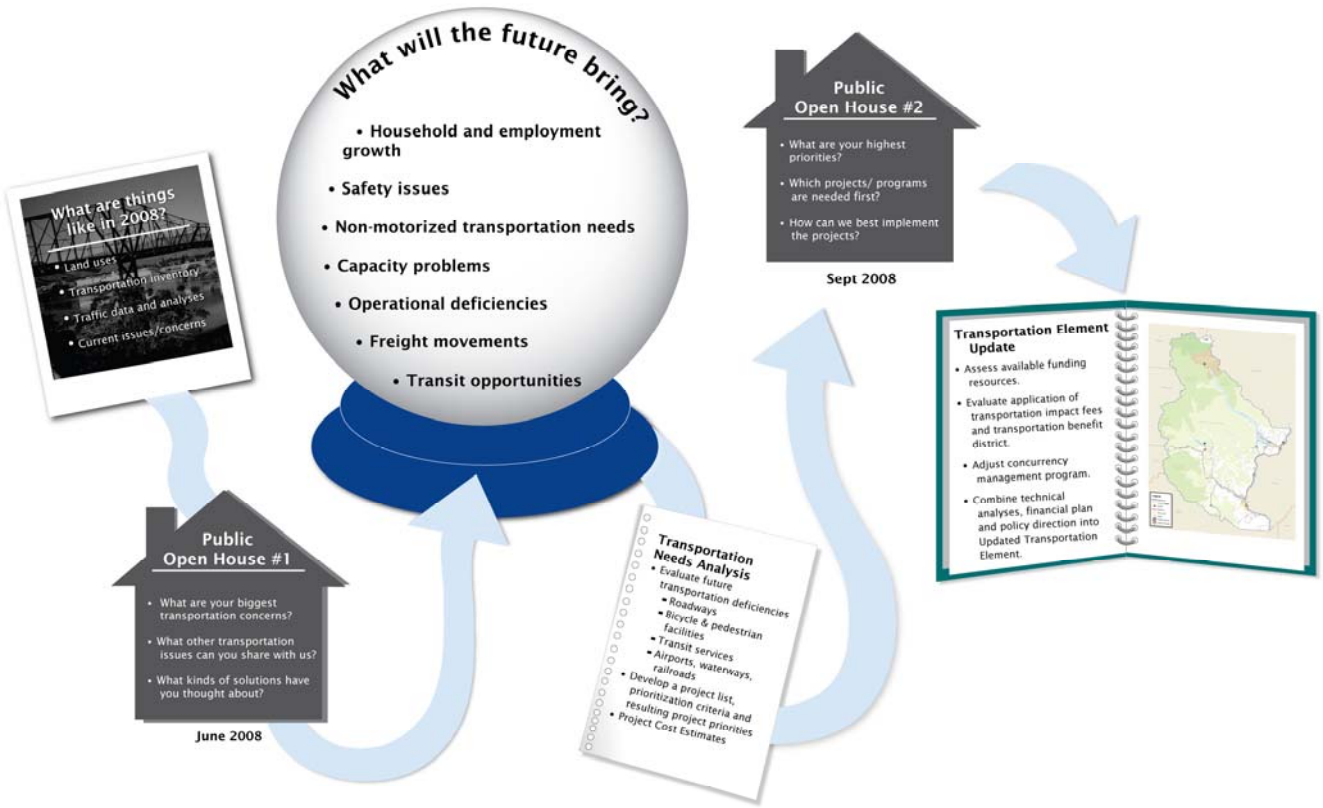


Figure 1-1. Plan Process

Organization of the Transportation Element

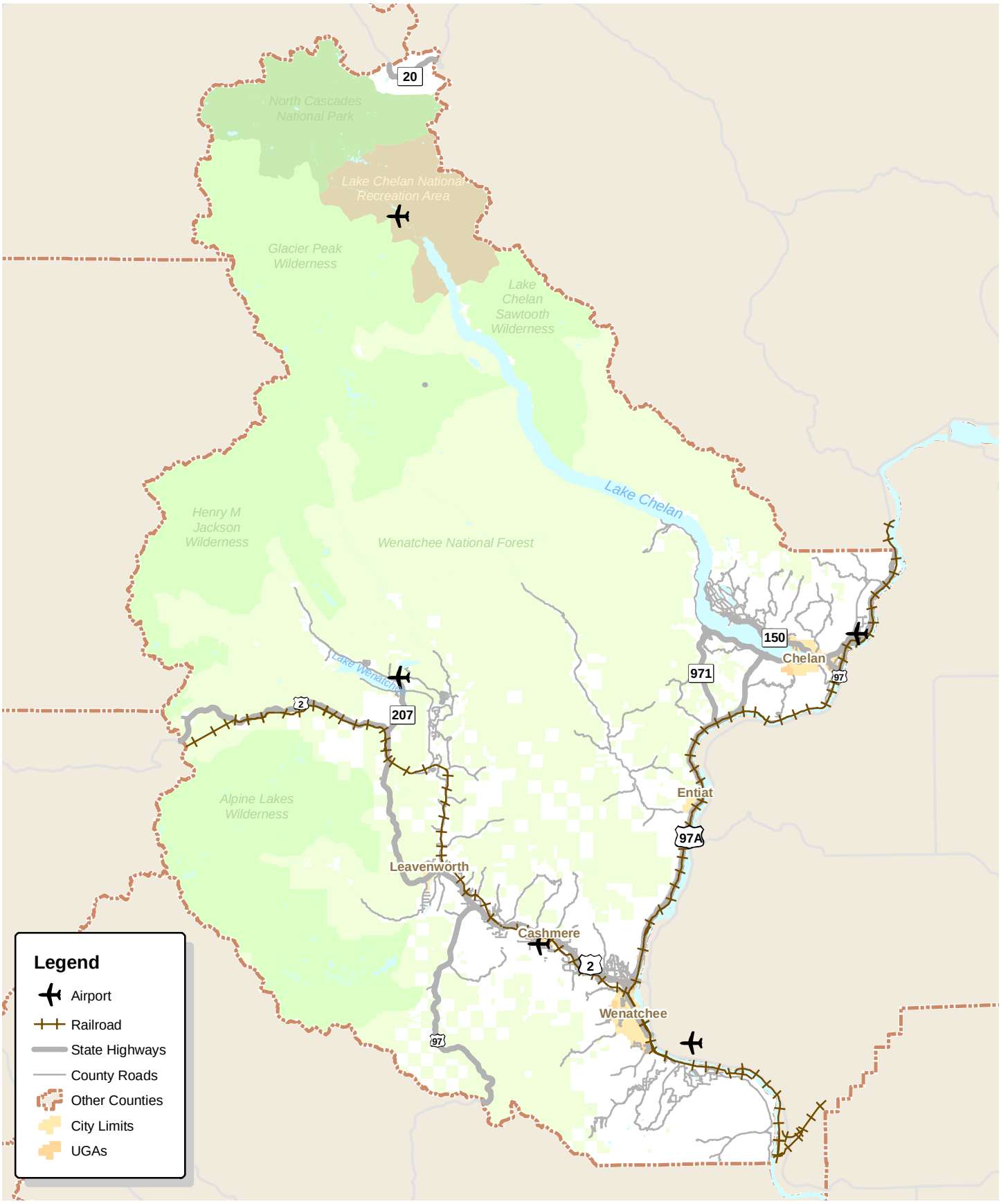
The Transportation Element is organized in a series of chapters addressing each of the primary components of the planning process. The chapters are as follows:

1. Introduction
2. Relationship to Other Plans
3. Agency and Public Involvement
4. Goals and Policies
5. Existing Conditions
6. Land Use and Traffic Forecasts
7. Transportation Priorities
8. Transportation Improvements and Programs
9. Finance and Implementation Program

Appendix material is also provided that contains more detailed information and background data used in the development of the Transportation Element.

Study Area

The study area for the Transportation Element includes all of Chelan County, with an emphasis on the unincorporated areas of the County. Since the County is only directly responsible for the roadway system in unincorporated areas and for roadways not designated as State Highways, the planning effort primarily focused on the County arterial and collector system, especially those roadways located within the six urban growth areas (UGAs). Figure 1-2 illustrates the study area for the Transportation Element, while also highlighting many of the major transportation facilities within the County.



Study Area

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\Airport, Rail, Water.mxd

FIGURE

1-2

Chapter 2 – Relationship to Other Plans

In 1990, responding to increased pressures from unprecedented population growth in this state, the State Legislature passed the Growth Management Act (GMA). The GMA requires all cities and counties in the State to develop long-range plans. The GMA required the fastest growing counties, including Chelan County, to adopt new comprehensive plans in compliance with the new law. Transportation is one of the elements that the County Comprehensive Plan is required to address. The original Chelan County Transportation Element, developed in 2000, needed to be updated to reflect recent changes in population and regional economic conditions, and to ensure that the Transportation Element is well aligned with current and projected land use patterns.

Land use and transportation are strongly interrelated. The Transportation Element establishes this vital link between land use and County transportation facilities and services needed to meet current system deficiencies and to support future growth, economic development, recreation, and the full range of activities anticipated in the County. The anticipated types, intensity and timing of land development in Chelan County will largely determine the need for transportation improvements and their nature.

The Transportation Element builds off the County Land Use Element of the Comprehensive Plan and a series of subarea plans developed for various communities throughout the County. Chelan County has the responsibility of determining what portions of the County will be included in an urban growth area (UGA). Stand-alone subarea plans have been prepared to guide the development within existing and proposed UGAs within the County. Other community plans have been developed to address growth in limited areas of more intense rural development (LAMRIDs). These are areas not designated as a UGA, but allow for higher densities of land use than are typically allowed for rural unincorporated areas. These planning documents include policy direction and recommended implementation actions. It is important that the County Transportation Element be consistent with the land use elements of the comprehensive plans developed for the jurisdictions within the County.

The Transportation Element also builds off other transportation planning documents adopted at the state, regional and local levels. Transportation improvements need to be coordinated across jurisdictional boundaries. The County Transportation Element needs to be consistent with and support the objectives identified in the *Washington State Transportation Plan*, the *Wenatchee Valley Transportation Plan (Confluence 2025)*, Cities' transportation elements and LINK Transit's development plan.

Regional Land Use Growth

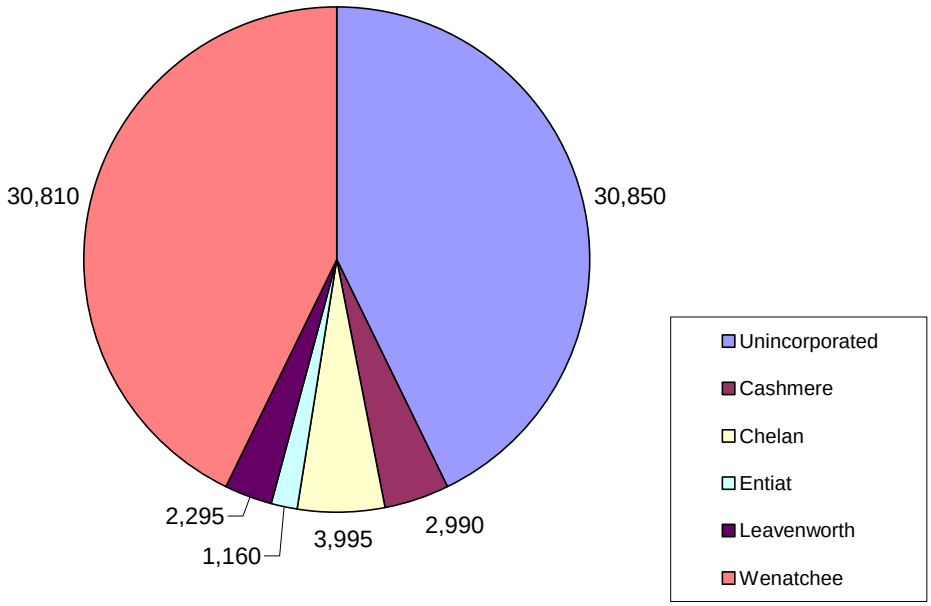
While historic trends are important to establish the background for the Transportation Element, future land uses and growth patterns will strongly affect transportation improvement needs within the 20-year planning horizon. The following summarizes the general growth patterns for Chelan County as a whole, based on information presented in the County's land use plan. Additional discussion of land use growth for each subarea is presented in Chapter 6.

Residential Growth

The 2008 population of Chelan County is 72,100 persons based on data provided by the Office of Financial Management (OFM). Figure 2-1 illustrates the distribution of the County population among the various cities and unincorporated areas. The five Cities represent 41,250 persons (or 57 percent) of the total population. The largest City is Wenatchee with a current population of 30,800 persons, representing more than 40 percent of the total County population. The 2008

population of the unincorporated areas of the County of about 31,000 people is essentially equal to the population of the City of Wenatchee.

Most of the recent growth has occurred in incorporated areas. Over the last ten years, the five Cities have experienced an increase of over 5,000 people, while the unincorporated areas have added only 500 persons[1].



Source: State Office of Financial Management, 2008

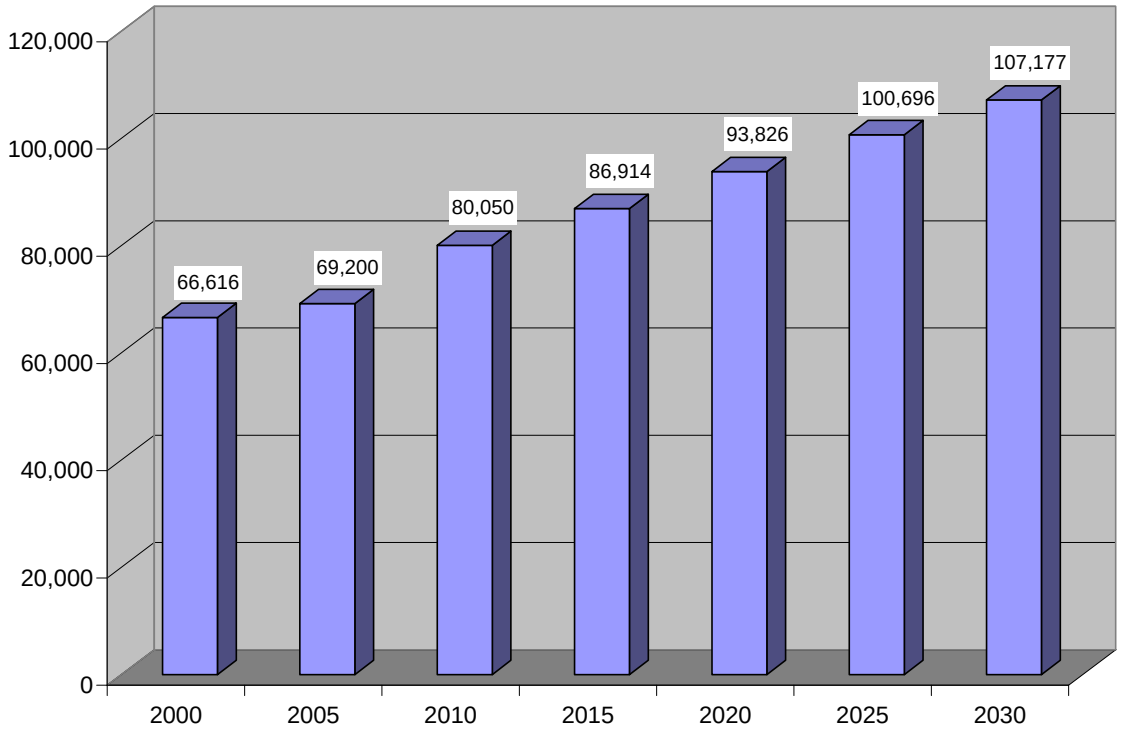
Figure 2-1. 2008 Population by Cities

According to the latest projections from the OFM (released in 2007), the population of Chelan County is projected to increase from 72,100 in 2008 to approximately 100,700 by 2025. This represents an increase of 28,600 persons over the 17-year period resulting in an average annual growth rate of 2.0 percent.

The OFM projections provided three alternative growth scenarios for Chelan County and the incorporated Cities to consider; a high, medium, and a low projection. Chelan County officials selected the high end growth projections as the County planning target in the Land Use Element of the Comprehensive Plan.

Figure 2-2 shows the 2000 Census population and the high-end projections for the period 2000 to 2030.

[1] Office of Financial Management population data



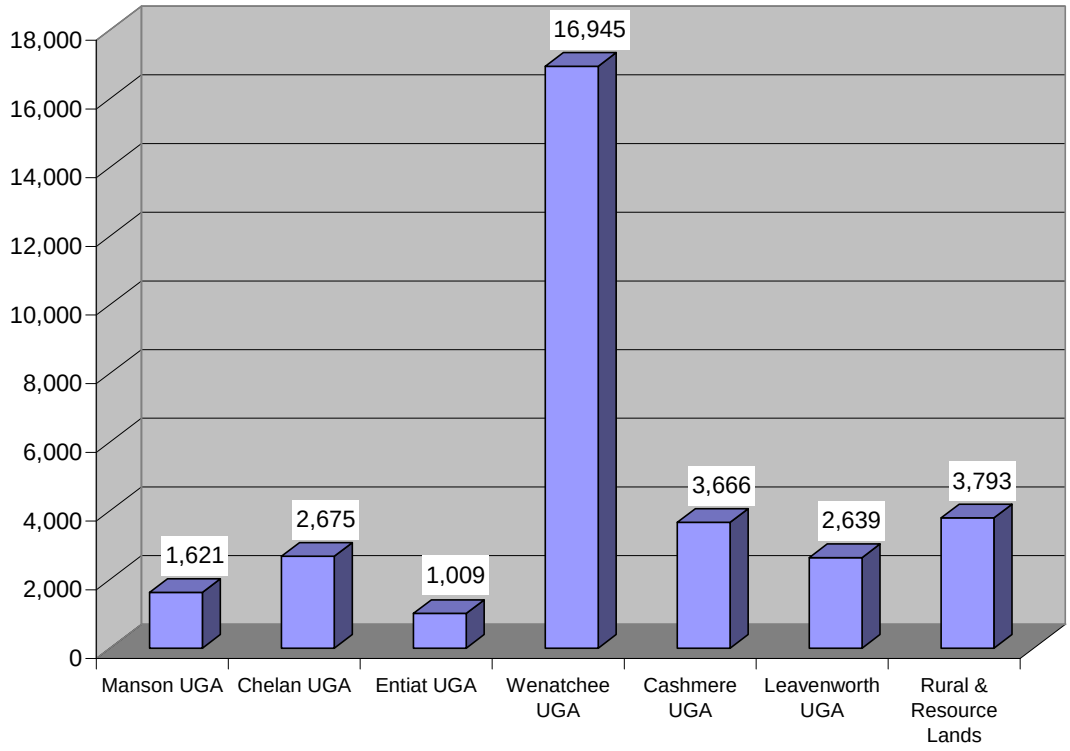
Source: State Office of Financial Management

Figure 2-2. Population Projections for Chelan County

The forecast population growth rate (2.0 percent) for the high scenario is higher than the County's historical population growth of 1.2 percent between 1960 and 2008[2]. The higher growth rate will result in additional demands on the transportation system. A large majority of the growth is expected to continue to occur in or near the Cities.

As reported in the County Land Use Element, the County and Cities have allocated a portion of the population growth to each UGA. The allocation of projected population growth between 2000 and 2025 is shown in Figure 2-3. Almost 90 percent of the anticipated population growth is targeted to occur within the Cities and the six designated Urban Growth Areas.

[2] Office of Financial Management population data



Source: Chelan County Land Use Element

Figure 2-3. Projected Population Growth (2000-2025) for Cities & UGAs, and Rural & Resource Lands

Employment Growth

In October 2008, the total labor force in the County was 43,000 with an unemployment rate of 4.5 percent[3]. Agricultural jobs in the County account for about one-third of overall employment. Farming and tree fruit industries have been an important part of the Chelan County economy for over a century. The local tree fruit industry employs thousands of local and migrant farm workers every year in the harvest season between June and early November.

The agriculture industry is expected to continue to be the main driving force in the Chelan County area for many years to come. With most of the tree fruit processing plants located in North Central Washington, many job seekers can count on these firms to provide them with jobs. However, over the last several years, farming and agricultural production have declined in North Central Washington compared to Washington State agricultural levels, while non-farm employment has edged up. This trend is likely to continue, especially in Chelan County where more and more agricultural land is being converted to residential properties.

Employment projections prepared by the Washington State Employment Security Department are available for Chelan/Douglas counties. Within the two-county area, the total non-farm jobs are expected to grow from 39,000 in 2006 to 45,200 in 2016 (average annual growth rate of 1.5 percent)[3]. The sectors expected to create the most new jobs in the counties include education,

[3] Washington State Employment Security Department, Chelan and Douglas Counties Profile (September 2008)

health services, government, and retail. Manufacturing employment in the counties is expected to decline.

Subarea Plans

Chelan County prepared several subarea plans to guide the development of various unincorporated areas within the County. It is critical that these various plans be considered in the process of updating the County Transportation Element. Subarea plans have been developed for Wenatchee Foothills, Sunnyslope, Malaga, Manson and Peshastin, in addition to the Countywide Land Use Element. The County is completing a regional plan for the Lower Lake Chelan Basin including the communities of Chelan Falls and Howard Flats. In addition, the County plans to complete a subarea plan for Monitor in the coming years. Each of these communities are either urban growth areas (existing or proposed) or limited areas of more intense rural development (LAMIRD), and represent areas where the most intense growth is expected to occur outside of the Cities.

A brief overview of each subarea plan is provided in this section, focusing on how each document was used for developing the County Transportation Element.

Sunnyslope

The Sunnyslope Subarea Plan was jointly prepared in 2007 by Chelan County and the City of Wenatchee. The document sets guidelines for future development of a 1,415-acre portion of the newly expanded Wenatchee Urban Growth Area (UGA). The Sunnyslope subarea is located to the north of Wenatchee at the confluence of the Wenatchee and Columbia Rivers. The subarea extends north to the foothills known as Eagle Rock and west toward the community of Monitor. The Subarea Plan refines the 2006 Wenatchee Urban Area Comprehensive Plan by proposing a preferred land use scenario and a number of goals and policies for Sunnyslope. It also updated and changed the land use designations within the UGA.

The transportation section of the Subarea Plan describes the existing transportation system and identifies a series of issues and concerns. The analysis led to the identification of specific transportation improvements, and implementation actions intended to facilitate agency budgeting and to aid in evaluation of progress in plan implementation.

The land use forecasts used in the Subarea Plan were used as a basis for the County Transportation Element. Many of the recommended transportation projects identified for Sunnyslope presented in Chapter 8 are consistent with the Subarea Plan.

Malaga

The Malaga Vision Plan documents the planning process undertaken in 2005 by the Malaga Community Council and the Chelan County Commissioners. The Vision Plan recognizes that many components of the growth and development of a community, such as transportation facilities, overlap political and jurisdictional boundaries, and must be coordinated among adjoining jurisdictions. The Malaga Vision Plan was prepared, in part, to respond to a number of community members expressing concerns over development in the Malaga area and the need to evaluate local preferences for the future direction of the community. The process resulted in a comprehensive land use designations map and zoning map amendments to be implemented through development regulations adopted by Chelan County. It also resulted in a “Logical Outer Boundary” for the LAMRID designation. It was recognized that most Malaga residents want to retain the rural atmosphere of the community and provide for limited opportunities for development of the area.

The Vision Plan provides only limited information regarding the transportation system for the subarea. It is mentioned that the anticipated traffic increase raises additional concerns regarding the single access/entry to the Malaga area from the rest of the County via the Malaga-Alcoa Highway. The community foresees an expansion of the transportation systems to allow efficient movement of goods, services and people within the planning area and connecting with the rest of Chelan County, but no specific projects are identified in the Vision Plan. The direction of the Vision Plan was incorporated into the Transportation Element for the Malaga Subarea.

Manson

The Manson subarea plan was prepared in 2008. It is still in draft form and was subsequently put on hold after completion of the Transportation Element update technical work program. The purpose of the plan is to identify land use related policies, help facilitate growth in the planning area which includes the Manson UGA and outlying rural areas, and establish updated land use designations and zoning. The draft plan evaluated the possible expansion of the existing UGA boundary. The growth expected from such an expansion was incorporated and analyzed as part of the Transportation Element.

The overall objective is to ensure that Manson and its surroundings grow as the community envisions. The vision for growth entails protection of the resources, the lakes, and the environment for current and future generations and the provision for sustainable economic growth. The subarea plan is designed to be an integral subset of the Chelan County Comprehensive Plan.

For the transportation system, the community's priorities and hopes for its future include the following:

- Make Manson more pedestrian friendly
- Connect walking routes to schools
- Reduce traffic hazards
- Promote pedestrian circulation
- Enhance the SR 150 corridor
- Enhance community entries
- Provide alternative truck routes

The walkable community concept emphasized in the specific goals and policies identified for the transportation element of the subarea plan. Another important policy is to "Identify and develop long-term opportunities to establish a secondary automotive route to/from Manson." These policies were used to guide development of transportation projects for the Manson subarea, as presented in Chapter 8.

Peshastin

The Peshastin subarea plan was developed by Chelan County in 2008. The subarea plan development regulations and new UGA are intended to provide the framework and policy direction for land use decisions while also regulating future development activities in the subarea. In preparing the subarea plan, the community defined an UGA and assigned new land use designations within the defined boundary. The Peshastin Subarea includes the historical community of Peshastin along with the surrounding rural and agricultural areas.

As part of the planning process, the Peshastin community has been working to identify desired future land uses, and to encourage those future land uses by implementing new comprehensive land use designations and corresponding zoning districts within the UGA.

The goals and policies section calls for coordinated planning efforts between the different agencies responsible for providing different modes of transportation to the subarea. These build from the Countywide Planning Policies and the North Central Regional Transportation Planning Organization (RTPO) plans. No specific transportation improvement projects were identified in the subarea plan, however regulations require new development to build frontage improvements such as new sidewalks. In addition, planned development must incorporate possible designs to allow for or connect to the proposed regional trail system. These policies were used to guide development of the transportation improvements to support growth in the subarea.

Wenatchee Foothills

A joint City and County study was performed in 2008 to provide information on potential transportation improvements to consider in the Wenatchee Foothills area as part of development of a subarea plan for the surrounding unincorporated areas. The study is still draft and is expected to be adopted in 2009. The intent of the study was to provide a comprehensive review of the traffic impacts anticipated as a result of the potential expansion of the City of Wenatchee UGA boundary westward into the Wenatchee Foothills area.

As a result of public comment, two alternatives were identified to be further analyzed as potential development options in the Foothills area. Alternative one is to keep the UGA at its current location and analyze the 20-year impacts of growth occurring at its current trend within the City and County at densities allowed by current zoning. The second alternative analyzed the traffic impacts due to the expansion of the UGA in the Number One Canyon, Number Two Canyon and Squilchuck study areas. It is anticipated that the land use will consist of primarily low density residential.

The purpose of this traffic analysis was to determine the anticipated future impacts of the two alternatives on the existing roadway network, specifically at the first major intersections in the City for each of the three canyons mentioned above as well as the Appleatchee and Broadview/North Road canyons. The preliminary improvement recommendations for those locations along County maintained roadways were incorporated into the County Transportation Element.

Lower Lake Chelan Basin Regional Planning Study

This ongoing study is being led by the County. The goal is to guide future growth and development in the region and to develop a common vision that ties together and builds on the diverse public, stakeholder and jurisdictional viewpoints and opinions in the Basin. It will balance important but sometimes competing issues of urban growth, agriculture, natural resource protection and open space and recreational amenities. It will develop and encourage efficient land use patterns, creative and complementary development regulations, strategic public infrastructure investments and active and passive recreational features that benefit the community.

The County Transportation Element is consistent with and builds off of the land use plans developed as part of this study effort. The Regional Planning Study was closely coordinated with the update of the County Transportation Element since both efforts were ongoing at the same time. The transportation improvements in the Transportation Element were incorporated into the most recent draft version of the study.

Other Transportation Planning Efforts

The Chelan County Transportation Element builds from and supports other transportation planning efforts including the *Washington State Transportation Plan*, the regional transportation plan, corridor plans, local agency transportation plans, and the LINK Transit development plan. The following summarizes how the County Transportation Element relates to these other plans.

Washington Transportation Plan

The *Washington Transportation Plan 2007-2026* (WTP) adopted in November 2006, and the associated *2007- 2026 Highway System Plan* (HSP) from December 2007, provide the umbrella for all metropolitan and regional transportation plans.

The WTP's vision is:

"Washington's transportation system should serve our citizens' safety and mobility, the state's economic productivity, our communities' livability, and our ecosystem's viability."

As presented in Chapter 7, the priorities set by Chelan County for its Transportation Element align with these state guidelines. The WTP priorities focus on preservation, safety, economic vitality, mobility and environmental quality and health. The process for establishing the County's priorities and identifying transportation improvement projects support and are consistent with these WTP objectives.

The Highway System Plan is an element of the WTP. The HSP identifies highway system improvement projects and programs consistent with the WTP priorities. The HSP is constrained by available funding forecast for the next 20 years. Improvement projects listed in the HSP were incorporated into the strategies and projects recommended in the County Transportation Element. Chelan County will continue to work with WSDOT in establishing the HSP funding programs and priorities to serve the regional transportation needs.

Wenatchee Valley Transportation Plan

In August 2005, the Wenatchee Valley Transportation Council (WVTC) adopted a strategic transportation plan for the Wenatchee Valley. The WVTC is a local government consortium responsible for regional transportation planning in the Wenatchee Valley. The WVTC is also the lead agency for the North Central Regional Transportation Planning Organization (NCRTPO), a separate but similar entity with the responsibility to coordinate transportation planning in the non-metropolitan areas of Chelan, Douglas and Okanogan counties.

As a regional council, WVTC provides a collaborative forum for the agencies that serve the region to develop the best strategies for solving transportation problems. The 2005 regional plan (Confluence 2025) represents their combined effort to describe a vision and strategy for improving transportation in the Wenatchee urban area over the next 20 years.

The regional transportation plan identified what is needed and sets priorities. It recognizes that the needs far exceed available revenues. WVTC led an extensive effort to evaluate the long list of transportation needs and decide which will address the most critical problems and maximize benefits for the region.

The geographical coverage of the metropolitan plan is the Greater Wenatchee urban growth area. It includes unincorporated areas that are directly under Chelan County's responsibility such as Sunnyslope and the Wenatchee Foothills subareas. For these particular areas, the list of transportation projects identified in the regional transportation plan, and the priorities set forth, provided information directly applicable to the development of the County Transportation Element. In these unincorporated areas located in Chelan County, most of the projects identified in the regional plan are included in the County Transportation Element. The County Transportation Element can be used to help guide future updates of the metropolitan and regional transportation plans, as applicable.

Corridor Plans

The most relevant corridor plan is the US 2/97 Corridor Safety Study conducted by WSDOT and completed in June 2002. The study identifies short- and long-range safety improvements on US 2/97 between Blewett Junction in Peshastin and Easy Street in Wenatchee (a 14.4-mile segment). Many Chelan County roads intersect with the State Highway within the study area, and Chelan County was a primary participant to the study. The study noted that the Blewett Junction, Cotlets Way, Main Street/Easy Street, and Easy Street intersections each had 27 or more accidents from the beginning of 1994 to the end of 2000.

Proposed recommendations were developed based on projected traffic volumes and anticipated corridor needs for the future. It was recognized that safety on the US 2/97 facility, access to the US 2/97 facility, and corridor mobility were important considerations needing to be addressed as traffic continues to increase in the corridor.

Short-term recommendations included intersection improvements such as restriping left-turn pockets, adding pavement for right-turn lanes or turn-pockets, and adding illumination. Longer term recommendations were also made and typically included providing additional control of movements at existing intersections, using either a signal or creation of a new interchange. The recently completed “Big Y” interchange in Peshastin was one of the numerous corridor study recommendations WSDOT has since completed.

All of the US 2/97 Corridor Safety Study recommendations were reviewed in the development of the County Transportation Element. Most of the relevant improvements are identified in the list of future projects presented in Chapter 8 of this document. The County Transportation Element is consistent with and supportive of the US 2/97 Corridor Safety Study.

Local Agency Transportation Plans

Pursuant to RCW 36.70A.100, Chelan County strives to develop a Comprehensive Plan that is consistent with neighboring jurisdictions. There are five cities within Chelan County (Cashmere, Chelan, Entiat, Leavenworth, and Wenatchee) and all of them have developed and adopted comprehensive plans including transportation elements in accordance with the Growth Management Act (GMA).

These transportation elements set the communities’ priorities and improvement strategies to address existing and future transportation needs. These plans primarily focus on arterials and collectors within the agency’s jurisdiction; however, needs in designated urban growth areas (UGA) and connecting routes in other jurisdictions are also described in some of the plans.

Development of the County Transportation Element included a review of cities’ comprehensive plan goals and policies. The objective was to ensure that the County goals and priorities were in alignment with local plans and policies. The analysis confirmed that local agency transportation goals are consistent with and support the County transportation goals.

The local transportation elements were also reviewed to identify possible improvements and programs related to the unincorporated areas for potential inclusion in the County plan.

The County Transportation Element is consistent with and builds off of local land use plans and forecasts from the City’s Comprehensive Plans. This process provides consistency between the local land use plans and the County transportation system needs. The County Transportation Element was closely coordinated with the update of the City of Leavenworth Transportation Element and the Chelan Regional Planning Study which were both ongoing at the same time.

Public Transportation Plans

Two recent transit plans were used in the process of developing the County Transportation Element:

- LINK Transit's Transit Development Plan
- Coordinated Human Services Transportation Plan

LINK Transit adopted a six-year transit development plan covering the period 2008 to 2013. The document highlights a set of action strategies organized around the following items:

- Preserve existing public transportation service levels
- Preserve existing public transportation facilities and equipment
- Integrate public transportation services into a coordinated system linked by intermodal facilities
- 2008 service expansion.

These strategies guided the development of the transit strategies of the County Transportation Element.

In 2007, WVTC led the development of a Coordinated Human Services Transportation Plan for the North Central Regional Transportation Planning Organization which covers Chelan, Douglas and Okanogan counties. The document describes existing transit services available and identifies service gaps and overlaps. Specific projects to address existing and future needs are described, and ranked into three categories to assist in defining which projects should be funded in priority through federal grant programs. The list of proposed projects was reviewed and some of these projects were included in the list of transportation improvements presented in Chapter 8 of the County Transportation Element.

Upper Valley Regional Trails Plans

An Upper Valley Regional Trails Plan is currently under development, with the City of Leavenworth as the lead agency. The new plan will integrate existing planning processes occurring in the upper valley area of the Wenatchee River. Plan proponents intend to build a community in which residents and visitors, in a safe and enjoyable manner, can travel for leisure or work, from corner to corner by their own force. This plan is envisioned to incorporate multiple modes of travel through four seasons and will include, but not be limited to: pedestrian, bicycle, equestrian and cross-country ski travel. This plan will link and enhance existing and planned trails and determine the necessary locations for new trails--all within urban, rural, and public lands settings. Where possible, this will also include development of pathways pursuant to Smart Growth initiatives such as "Green Infrastructure". This plan will include the creation of capital improvement plans and goals and policies for the City of Leavenworth, Peshastin Community, and Chelan County Comprehensive Plans, and will also involve the creation of development standards for each jurisdiction. Ultimately this plan will further each partner's goals for development of open space, recreation, and healthy communities.

Chapter 3 – Agency and Public Involvement

The public involvement program actively engaged Chelan County stakeholders and the broader community in planning their transportation future for all modes of travel including motor vehicles, aviation, rail, transit, marine and non-motorized. The plan established a fundamental link between County land use and required transportation infrastructure. The public involvement program informed stakeholders and the broader community about the Transportation Element of the Comprehensive Plan and encouraged their participation in shaping development of the plan.

The outreach program was designed to have participation on several levels. The Steering Committee, composed of agency representatives directly involved in the project and elected representatives, gave specific guidance to the work of the consultant team. A Stakeholder Advisory Group, composed of representatives from Chelan County, WVTC, WSDOT, local communities, transportation service providers, organizations, business interests and citizens provided advice at key points in the process. A speaker's bureau, led by Chelan County staff, gave presentations and gathered feedback from interested organizations throughout the County. Two countywide open houses were held, the first following identification of needs and proposed improvement priorities and the second to review identified project priorities and potential funding strategies to achieve implementation of projects over time.

The Steering Committee and Stakeholders Group met five times during the development of the Transportation Element; in addition, public open houses were held prior to their second and fourth meetings. The Steering Committee met in the afternoon following each of the five stakeholder meetings. These meetings enabled the Steering Committee to review and consider the stakeholder and community feedback as they discussed and developed their direction to the consultant team. Public feedback from the open houses and speaker's bureau briefings was provided to the Stakeholder Group and Steering Committee for their consideration throughout the process. Materials and meeting notes are available in Appendix A.

A County website offered project information, notices of upcoming meetings and a posting of all meeting and open house materials. Electronic communication was used to contact members of the Steering Committee, Stakeholder Group and broader community about meetings and open houses.

Open houses were held to obtain input from the public on their transportation issues and needs.

Steering Committee

The Steering Committee had perhaps the greatest interest and participation in the project. Members regularly attended the Stakeholder Group meetings and public open houses to assure a good understanding of broader community views, in addition to playing a role on the committee.

Steering Committee Members:

- Greg Pezoldt, Chelan County Public Works, Project Manager
- John Guenther, Former Chelan County Community Development Director (replaced by Lilith Yanagimachi, Chelan County Planner)
- Buell Hawkins, Former Chelan County District #3 Commissioner
- Jeff Wilkens, WVTC Executive Director
- Connie Krueger, City of Leavenworth Community Development Director
- Dave Honsinger, WSDOT North-Central Region Planning Manager
- Richard Derock, LINK Transit Executive Director

The following table provides a summary of the meetings and major topics discussed. All meeting materials and a more detailed summary are provided in Appendix A.

Table 3-1. Steering Committee Meetings

Meeting Date	Major Topics
Meeting #1 March 7, 2008	• Work Program Overview • Public Involvement Plan • Goals and Policies • Issues Identification • Committee's Role in Guiding the Project
Meeting #2 June 4, 2008	• Open House Summary • Design and Operational Standards • Priority Criteria • Needs Assessment Approach
Meeting #3 August 6, 2008	• Stakeholder Meeting Highlights • Financial Analysis • LOS Standards • Travel Forecasts • Preliminary Capital Project List
Meeting #4 October 1, 2008	• Open House Summary • Funding Strategies • LOS Standards • Development Review Process
Meeting #5 November 19, 2008	• Concurrency Implementation • Mitigation Requirements and Administrative Guidelines • Funding Recommendations • Updates to Goals and Policies

Stakeholder Advisory Group

The Stakeholder Advisory Group was composed of a large, broadly representative group of interests from throughout the County. Members reflected the different geographic areas of the County as well as different interests including business, community, recreation, non-motorized, freight and agencies. The list of invited participants was initially identified by the County. Additional recommendations were added at the first Stakeholder Group and Steering Committee meetings. Members were contacted via an email invitation and follow-up phone calls by the County. Over 35 stakeholders participated in all or some of the five meetings. Two of the meetings also included video or telephone conferencing for some agency representatives in Leavenworth and Chelan. Stakeholders representing groups were also sent email invitations to the public open houses and asked to distribute them to their organizations and other community members who might have an interest.

The Stakeholder Advisory Group reflected the different geographic areas of the County as well as different interests including business, community, recreation, non-motorized, freight and adjoining agencies.

The presentations and discussion topics for the meetings followed the same items as those discussed by the Steering Committee. Stakeholder Group members were asked to provide their views and insights on all aspects of the Transportation Element. Feedback from the Stakeholder Group was an important component to the Steering Committees' consideration in developing recommendations for the consultant team.

Table 3-2 provides a summary of the meetings and major topics discussed with the stakeholder group. All meeting materials and a more detailed summary are provided in Appendix A.

Table 3-2. Stakeholder Advisory Group Meetings

Meeting Date	Major Topics
Meeting #1 March 7, 2008	• Introductions • Work Program Overview • Public Involvement Plan • Issues Identification
Meeting #2 June 4, 2008	• Level of Service • Transportation Improvements to Consider • Land Use Projections
Meeting #3 August 6, 2008	• Outreach Efforts • Project Priorities • Financial Analysis • Preliminary Capital Projects
Meeting #4 October 1, 2008	• Funding Strategies • LOS Standards • Development Review Process
Meeting #5 November 19, 2008	• Funding and Implementation Strategies • Goals and Policies

Speakers Bureau

A PowerPoint presentation, tailored for delivery by County staff to interested community organizations, was developed following the first two Stakeholder and Steering Committee meetings and the first public open house. The presentation outlined the Transportation Element objectives, the process for updating the Element, outreach methods, the project schedule considerations for prioritizing improvements, the relationship of land use and the environment, types of roadway improvements, countywide issues and a detailed look at each subarea. Presentations were made by Greg Pezoldt and John Guenther during the summer of 2008 as follows:

- Sunnyslope/Foothills - June 25, 2008
- Malaga - July 1, 2008
- Peshastin – July 7, 2008
- Manson – July 22, 2008
- Chamber Alliance – July 28, 2008
- Chelan Falls / Howard Flats – August 14, 2008
- Monitor – August 21, 2008
- Freight Mobility Group – August 22, 2008

Open Houses

Two public meetings were held to provide the broader public with an opportunity to express their views about the update of the Transportation Element of the Comprehensive Plan. Meeting dates were coordinated to occur on evenings preceding the Steering Committee and Stakeholder Advisory Group meetings.

The first open house was held on June 3, 2008 at the Confluence Technology Center. The event introduced the public to the plan update process, shared project history and objectives, and actively engaged community members in identification of the issues and potential improvements. A presentation by the consultant team and County staff provided an overview of the project and process. Staffed exhibits offered more detailed information on priorities and subarea opportunities. Attendees were asked to express their views on priority needs through a “dot exercise” and involved identifying their highest three priorities by marking them with three “dots” that were provided. The results of the exercise were then reported to the Stakeholder Group and Steering Committee.

The second open house was expanded to include events in three different locations in order to provide better access to community members. Open houses were hosted on September 30th at the Wenatchee Confluence Technology Center, October 1st at the City of Chelan Council Chambers and October 16th at the City of Leavenworth Fire Hall. The Leavenworth open house was a joint review of both the Leavenworth and County Transportation Elements, so results of that meeting were also included in the City of Leavenworth’s Transportation Element.

The purpose of the second series of open houses was to confirm the 20-year multimodal transportation project list including project priorities and timing for implementation. The meetings also focused on potential funding strategies and sources that could be used to meet the transportation project needs. Open house materials were the same for all locations but with special emphasis on the geographic area of most interest for each city and surrounding communities. Exhibits and handouts provided the extensive project list divided into three tiers of funding probability plus detailed information about each of the nine subareas. Exhibits included the history, objectives, project evaluations by subarea plan and an analysis of the County’s transportation funding status and options. They were staffed by consultants and County representatives who engaged participants in discussion, clarification and identification of views. Following a brief presentation by the consultant, Commissioner Buell Hawkins facilitated a community discussion about the prioritization of projects and the challenges posed by current funding limits. In addition to questions and responses, the discussion focused on the communities willingness to consider new forms of transportation revenue and who should ultimately be responsible to fund certain types of improvements. This resulted in a lively discussion.

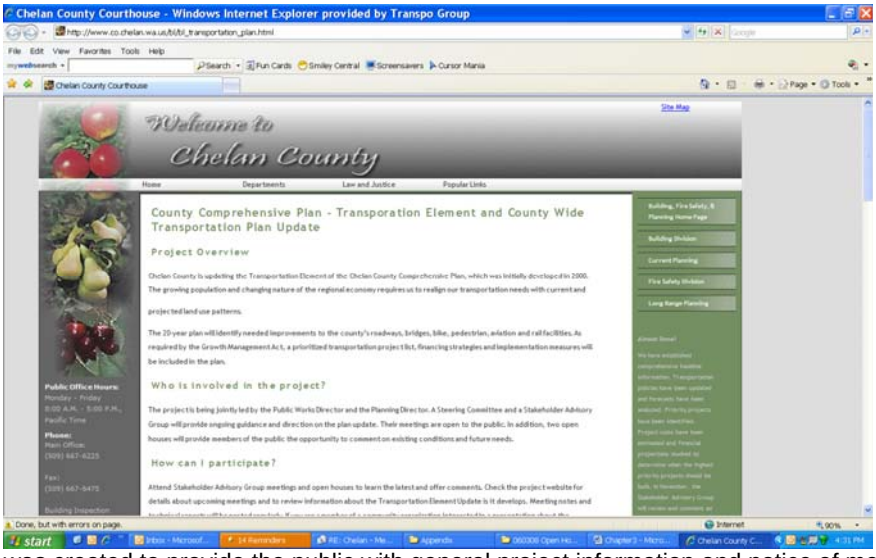
Open houses were held in the spring and fall of 2008 and attracted a number of residents from throughout the County.

The open house meetings were advertised through press releases to the local media, public service announcements during the Commissioner's radio programs, web site notification and an email to the stakeholder list for broader distribution to organizations and interest groups.

Meeting summaries, agendas, and materials for the Public Open Houses can be found in Appendix A. They provide detail on the presentations, exhibits, discussion and feedback. Exhibit material and handouts are included with the Stakeholder Group Meeting information since the same material was used for both meetings and the open houses.

Web Site

A project website was hosted and maintained by Chelan County throughout the duration of the project. In addition to general project information and notice of meetings and open houses, the agendas, handouts, exhibits and meeting summaries for the Stakeholder Group and the open houses are included as resource documents. Interested community members had access to all information online and also expressed views or raised questions via email.



A web site was created to provide the public with general project information and notice of meetings and open houses, along with the meeting agendas, handouts, exhibits and summaries.

Chapter 4 – Goals and Policies

By broad definition, the formulation of goals and policies is a fundamental step in the transportation planning process. Goals and policies describe the desired end result of a transportation plan as well as directions on how to get there. More specifically, ***goals*** describe in broad, general terms a desired future condition, which is consistent with community ideals or vision; ***policies*** are statements that describe courses of action designed to achieve the goals.

There are 12 broad goals presented, followed by a series of policies to support each goal.

1. Overall System

Goal: To provide a safe, convenient, and economically functional multimodal transportation system that focuses on the efficient movement of people, goods, and services.

POLICIES

1.1 Maintain a comprehensive transportation system plan, showing roadway classifications, roadway extensions, future facility locations and right-of-way needs.

1.2 Review and update the transportation element every five years or as needed to respond to changes in land use planning, funding, or operating of the transportation system.

1.3 Consider and be respectful of the rural and historic character of the County while implementing the transportation element.

1.4 Recognize the needs of all users of the transportation system including motor and freight vehicle drivers, bicyclists, pedestrians, and public transportation users, and balance the needs in all types of *rural* and *urban* transportation and development projects and through all phases of a project.

2. Coordination and Consistency

Goal: To coordinate transportation planning and projects with local, regional and state agencies, and with the general public.

POLICIES

2.1 Obtain input and work to be consistent with plans from Cities, Wenatchee Valley Transportation Council (WVTC), LINK Transit, Washington State Department of Transportation (WSDOT), and other adjoining agencies.

2.2 Encourage public participation in transportation-related decisions and provide forums to help citizens understand transportation issues.

2.3 Work with cities to develop and adopt street design standards for each city's Urban Growth Area.

2.4 Develop consistent or compatible processes to identify and set priorities for transportation improvement projects in each agency's six-year transportation improvement program.

2.5 Coordinate with the US Forest Service relative to their activities and policies on transportation.

2.6 Prioritize projects that help to create a comprehensive, integrated and connected network of roads, trails, and other transportation services.

3. Roadway System

Goal: To establish an efficient, safe and environmentally sensitive road system that supports desired development patterns.

POLICIES

3.1 Apply adopted County Road Classification and Design Standards in the design and construction of roadways consistent with Title 15.30 of the Chelan County Code.

3.2 Maintain a functional classification system, and design roadways in accordance with functional classifications and 20-year travel demands.

3.3 Require dedication of roadway rights-of-way in land development processes, in accordance with the appropriate functional classification, County Road Standards, and County/WSDOT policies.

3.4 Treat safety, preservation of the existing roadway system, and construction of non-motorized facilities as high priorities.

3.5 Coordinate maintenance activities and annual maintenance programs with adjacent jurisdictions, Forest Service, and WSDOT.

3.6 Identify, in rank-order from highest to lowest priority, Chelan County roads that are to be maintained during snow periods.

3.7 Require a maintenance agreement for private roads that are approved as a result of development or changes in land use.

3.8 Work with WSDOT and other agencies to improve traffic safety of roadways and intersections.

3.9 Design roads to enhance safety during winter driving conditions and to minimize wintertime maintenance needs and costs where possible.

3.10 Define and implement improvements to preserve the level of service and operations of the existing County road system.

3.11 Implement a transportation concurrency program to deny approval of any development proposal that would cause a roadway segment to fall below the adopted minimum level of service (except for highways of statewide significance) unless transportation improvements or strategies to accommodate the impacts of the proposed development are made concurrent with the development.

3.12 For concurrency, maintain a minimum 50-point rating that accounts for pavement width, pavement condition, roadway grade, and availability of pedestrian facilities as defined by the County's Concurrency Management Program for all County roadways.

3.13 For SEPA review of new development and planning and design of transportation facilities, recognize that the minimum level of service adopted for State Routes and County arterials and collectors is level "C" for rural areas and level "D" for urban areas.

3.14 Administer a pavement management system that monitors and updates road condition ratings as defined in the County's Concurrency Management Program, focusing on areas that experience development and traffic growth.

3.15 Prioritize and program road improvements to minimize seasonal road restrictions or closures.

3.16 Minimize direct vehicular access from private property onto arterial streets and collectors. Instead, encourage access via frontage roads or connecting local streets.

3.17 Pursue the restriction/elimination of roadway access points as opportunities arise to maintain the capacity, operations and safety of existing arterials and collectors.

3.18 Evaluate proposed transportation projects for their impacts to emergency service access and existing uses.

3.19 Recognize that Forest Service and primitive roads are generally unsuitable for residential development.

4. Air Transportation

Goal: To support the air transportation needs of the State, the County, and local communities.

4.1 Work with WSDOT to provide input into the planning process and to explore opportunities to implement the State Airport Plan.

4.2 Maintain existing airport and floatplane facilities and accommodate needed expansion to serve growing population and employment needs.

4.3 Restrict land uses in airport areas that would create hazards with airport activities.

4.4 Provide for adequate transportation connections to airport facilities within the County.

4.5 Recognize the existence and current use of private small airfields, landing strips, and private helistops in land use decisions, and ensure proposed expansions of these private facilities meet all required development criteria.

5. Rail Transportation

Goal: To maintain and expand rail service in the County.

POLICIES

5.1 Work with WSDOT to provide input on the State Rail Plan and to facilitate implementation of rail transportation facilities and services.

5.2 Improve the safety and efficiency of railroad crossings.

5.3 Strive to ensure that adequate passenger rail service is available to serve the needs of the County.

6. Freight and Goods

Goal: To promote efficient movement of freight and goods throughout the County.

POLICIES

6.1 Prioritize and support improvements to facilities that are critical components of the intermodal transportation systems (e.g. roads leading to airports, rail transfer facilities, access to businesses, agricultural lands and employment centers, etc.).

6.2 Prioritize and support improvements to the County Freight and Goods Transportation System (FGTS) roads to complete an All-Weather Road System.

6.3 Provide and maintain adequate facilities for air freight operations.

6.4 Encourage freight rail service as a viable alternative to trucking in the transport of commerce.

6.5 Work closely with local, regional and State partners to monitor rail freight activity and ensure that the County's priorities, preferences, and interests are represented and factored into emerging State and County policies and programs.

7. Non-motorized Transportation

Goal: To promote a safe and efficient system of non-motorized facilities throughout the County.

POLICIES

7.1 Promote coordinated non-motorized system improvements focusing on access to schools (Safe Routes to School Program), parks, transit services, employment and service centers, and shorelines.

7.2 Include specific provisions for non-motorized travel in the design of all new and existing transportation facilities, where feasible.

7.3 Encourage safe and convenient non-motorized connections between developed and developing areas.

7.4 Establish a system of designated bicycle and trail routes for transportation, scenic, and other recreational uses utilizing existing transportation corridors where safety considerations are not compromised.

7.5 Develop a Comprehensive Trails Plan to analyze alignment, design, cost, phasing and relative priority of trail projects, and to

identify the needed linkages between the trails.

7.6 Explore opportunities for separated mixed-use paths to enhance enjoyment of natural/scenic areas in a safe manner.

7.7 Support improved non-motorized and trail signage, along with facilities such as bicycle lockers.

7.8 Recognize the non-motorized system as an extension of transit, and work to provide needed linkages and access to transit stops.

8. Transit and Travel Demand Management

Goal: To enhance the operation of transit services and to implement Transportation Demand Management (TDM) strategies to increase and support the capacity and efficiency of the transportation system.

POLICIES

8.1 Work with LINK Transit to provide adequate facilities for efficient operation of the transit system.

8.2 Apply Americans with Disabilities Act (ADA) guidelines to facilitate access to transit facilities including bus stops.

8.3 Support the development of new transit services or expansion of existing services when appropriate.

8.4 Require transit facilities and services as mitigation, where appropriate, for new developments.

8.5 Support the school bus services, and address their specific needs in the prioritization of roadway maintenance activities.

8.6 Promote and facilitate ridesharing opportunities in cooperation with state agencies and LINK Transit. Look for strategies to optimize use of park-and-ride and park-and-pool facilities.

8.7 Work with LINK Transit, WSDOT, and local agencies to develop park-and-ride, park-and-pool, and express transit service where the need for such facilities has been identified.

8.8 Work in partnership with service providers to maintain or improve intercity transit services and airport shuttle services.

8.9 Develop and implement transportation demand management programs appropriate for the various communities in the County.

8.10 Coordinate with WVTC to develop and administer the Commute Trip Reduction (CTR) program consistent with Washington law.

8.11 Encourage development of telecommuting centers.

9. Economic Development

Goal: To encourage economic development through an efficient transportation system that supports opportunities in tourism and recreation as well as business and employment.

POLICIES

9.1 Work with other local, State, and Federal agencies to provide improvements to transportation systems that promote safe and efficient access for recreational and tourism activities throughout the County.

9.2 Support improved water transportation on Lake Chelan.

9.3 Protect existing public access to public waterways and lands and seek opportunities to increase public access wherever practical.

9.4 Support cooperative efforts to provide for docking of boats, barges, and float planes on Lake Chelan by common agreement of the National Park Service, Forest Service, Chelan County Public Utility District, and the Port of Chelan County.

9.5 Cooperate with Cities, communities and port districts, where possible, to accommodate industry in new growth areas.

10. Coordination with Land Use

Goal: To establish land use policies, regulations and designs that enhance the transportation system.

POLICIES

10.1 Ensure consistency between the transportation and land use elements of the Comprehensive Plan.

10.2 Require development to include public and non-motorized transportation compatible designs in all projects.

10.3 Support urban growth boundaries, urban nodes, residential centers, and employment centers identified in local comprehensive plans in order to promote an efficient land use pattern and transportation system.

10.4 Ensure development regulations are flexible and receptive to innovations and advances in transportation technology.

10.5 Apply a development review and approval process that facilitates the construction of local roads and transportation improvements.

10.6 Discourage the use of dead-end roadways in new developments.

11. Environment and Energy

Goal: To provide transportation facilities and services that are energy efficient and minimize adverse environmental impacts resulting from both their construction and use.

POLICIES

11.1 Coordinate with and adhere to regional, State, and Federal agencies on reducing air quality impacts.

11.2 Consider refinements to roadway design standards so as to minimize impacts on hydrologic systems, including surface and groundwater quality.

11.3 Provide flexibility on the width of pavement and lanes to allow for narrower lanes while still assuring that roadways function safely for cars and trucks, public transportation, bikes, pedestrians, and other service vehicles. The use of alternatives to impervious surface materials, wherever possible, should also be considered.

11.4 Develop alternatives to transportation improvement projects when significant adverse environmental impacts have been identified.

11.5 Develop and apply mitigation strategies to reduce unavoidable adverse environmental impacts of transportation improvements.

11.6 Promote the conservation of energy through transportation demand management policies and techniques.

11.7 Explore the County's commitment in the use of alternative fuels and lubricants such as re-refined oil, electric and compressed natural gas-powered cars and light trucks.

11.8 Establish the County’s commitment and encourage other public and private transportation service providers to consider fuel efficiency and the use of alternative fuels in its vehicle acquisition procedures and accommodate alternative fueling services as needed (e.g., electric recharge stations, natural gas filling stations).

12. Implementation and Funding

Goal: To develop an approach to prioritize and implement transportation improvements over the next 20 years.

POLICIES

12.1 Establish a prioritization system based on criteria and ranking of transportation

projects based on the three highest County priorities.

12.2 Promote the equitable distribution of the costs of transportation facilities between the public and the private sector.

12.3 Develop the annual Six-Year Transportation Improvement Program (TIP) so it is financially feasible, leverages available County funding, and is consistent with the Comprehensive Plan.

12.4 Ensure that new development mitigates their impacts on the transportation system.

12.5 Use SEPA to evaluate impacts to safety, access, and roadway/intersection operations and apply transportation concurrency to measure the adequacy of the impacted roadway segments from new development.

12.6 Establish and implement a development review process for transportation that addresses concurrency, SEPA, Road Standards, and other impacts and potential mitigation requirements. Review the cumulative transportation impacts of new development and implement methods of sharing mitigation costs.

12.7 Provide for Latecomer Agreements to better allocate improvement costs.

12.8 Explore implementation of a Transportation Impact Fee program to help fund the implementation of growth-related transportation projects.

12.9 Improve the sustainability of the County's Road Levy for funding maintenance, operations, and capital improvements. Periodically review funding status and consider increasing the County Road Levy, including possible voter approval of a Levy lift.

12.10 Coordinate among jurisdictions (Chelan County, Cities, LINK Transit, Port Authority of Chelan County, WSDOT) to jointly fund transportation improvements.

12.11 Consider formation of a Transportation Benefit District (TBD) to help fund County and/or regional transportation improvement projects.

12.12 Explore and implement other public/private funding options such as Local Improvement Districts (LID) and Road Improvement Districts (RID).

12.13 Pursue a range of grants to help fund roadway and multimodal transportation improvement projects.

12.14 Work with State legislators, other counties, local cities, and other stakeholders to reduce restrictions on use of Planned Action Ordinances, Transportation Benefit Districts, and other available funding programs.

Chapter 5 - Existing Conditions

Comprehensive data on the existing transportation system in Chelan County was obtained from the County, WSDOT, WVTC, local Cities and other agencies to develop an inventory of the existing multimodal transportation system. The inventory covers the various modes of transportation available, including the roadway system, public transportation services, pedestrian and bicycle facilities, air and water facilities.

The evaluation of the roadway system focuses on the state highways and County roadways. It includes information on the roadway functional classification system, current traffic volumes and recent accident history. Major issues and deficiencies associated with the existing facilities are also identified.

The existing conditions are organized by modes of transportation: roadway, transit, non-motorized, and other modes including air, rail and water.

Roadway System

The County road inventory consists of a total of 672 miles of roads and 46 County-owned bridges. This inventory published in the 2005 Annual Report of the Washington State County Road Administration Board (CRAB) does not include State Routes or City streets. Rural roads form the majority of the system (616 miles). A total of 132 miles of County roadways were unpaved in 2005.

WSDOT is responsible for six state highways within Chelan County: US 2, US 97, SR 285, SR 207, SR 150 and SR 971. US 2 runs east/west passing through the communities of Leavenworth, Peshastin, Cashmere, Monitor and Wenatchee. US 97 runs north/south from I-90 in Ellensburg to US 2 in Peshastin, joins with US 2 running east/west. North of Wenatchee, US 97 splits into Alternative 97 (US 97A) which continues as a north/south route along the west side of the Columbia River through Entiat and Chelan. The US 97 leg crosses the Columbia River and continues as a north/south route on the east side of the Columbia River in Douglas County. SR 285 provides a direct connection between Wenatchee and the US 2 and 97 corridors. The other State Highways within the County (SR 207, SR 150, and SR 971) run short distances connecting communities with either US 2 or US 97.

Functional Classification

Roadway functional classification provides for a hierarchy of roadways. Collector streets serve higher traffic volumes and may have fewer access points. Collector streets link State Highways and City arterials to local streets and may provide access to individual parcels. Chelan County has classified its street system into six primary categories: principal arterials (State Highways), rural major collector, rural minor collector, urban collector, and urban and rural local access streets. The County's road network and functional classifications are depicted in Figures 5-1 through 5-5. Functional classifications are also listed in Tables 5-1 and 5-2.

State Highways

The State Highway system serves as the arterial roadway system within Chelan County. The State Highways connect each of the major subareas with one another. As such, no County maintained roadway, outside of urban growth areas (UGAs), is classified as an arterial. WSDOT classifies State Highways into one of three functional classes:

(a) The "principal arterial system" consists of a connected network of rural arterial routes with appropriate extensions into and through urban areas, including all routes designated as part of the interstate system, which serve corridor movements having travel characteristics indicative of substantial statewide and interstate travel;

(b) The "minor arterial system" form, in conjunction with the principal arterial system, a rural network of arterial routes linking cities and other activity centers which generate long distance travel, and, with appropriate extensions into and through urban areas, form an integrated network providing interstate and interregional service;

(c) The "collector system" consists of routes which primarily serve the more important intercounty, intracounty, and intraurban travel corridors, collect traffic from the system of local access roads and convey it to the arterial system, and on which, regardless of traffic volume, the predominant travel distances are shorter than on arterial routes.

Within Chelan County, US 2, US 97 and SR 285 are classified as Principal Arterials and US 97A is classified as a Minor Arterial by WSDOT. The other State Highways (SR 207, SR 150 and SR 971) are classified as Collectors by WSDOT.

The State Highways are depicted in Figures 5-1 through 5-5. They are also listed in Table 5-2.

Table 5-1. Functional Classification of State Highways

Principal Arterial	Minor Arterial	Collector
US 2	US 97A	SR 207
US 97		SR 150
SR 285		SR 971

SOURCE: WSDOT Functional Classification of Public Roads

Chelan County

Chelan County roadway classification includes urban collectors, rural major and minor collectors, and local access roads (urban and rural). Roadway classification criteria are defined in Chapter 15.30 (Development Standards) of the County Code. The County's road network and functional classifications are depicted in Figures 5-1 through 5-5. Functional classifications are also listed in Table 5-2

An urban road classification is defined as those roads within a designated UGA as established by Chelan County and its cities. Roads within the urban areas of the County typically serve higher density neighborhoods. Urban roads may include sidewalks and other pedestrian and bicycle facilities.

A rural road classification is defined as those roads not within a designated UGA. Except for the rural major and minor collectors, roads outside of the urban areas of the County typically serve lower density land use with larger lot sizes. They usually lack urban design elements such as sidewalks, but may include pedestrian and bicycle facilities, such as paved shoulders or gravel pathways.

Urban Collectors

The primary function of urban collectors in the County is mobility. Urban collectors provide service between the incorporated Cities of Chelan County and to other traffic generators of equivalent intercounty importance. They also connect to State Highways. Urban collectors

provide for movement within an urban community, including connecting neighborhoods with smaller community centers. On-street parking is discouraged. Traffic volumes on urban collectors typically range from 1,500 to 15,000 vehicles per day (vpd).

Rural Major Collectors

Rural major collectors serve as the major County roads in the non-urban areas. Although the predominant function of major collectors is the movement of through traffic, they also provide for considerable local traffic that originates or is destined to points along the corridor. Major collectors provide connections to schools, parks, agricultural areas and other key generators outside the UGAs. They usually do not penetrate identifiable neighborhoods. The average daily traffic (ADT) range is typically between 1,500 and 4,000 vpd.

Main Street in Peshastin is a Rural Major Collector, but will be revised to an Urban Collector with adoption of the Peshastin UGA.

Rural Minor Collectors

Rural minor collectors collect traffic from local roads and provide service to smaller communities and link the locally important traffic generators with the rural areas of Chelan County. Minor collectors typically carry lower traffic volumes directly from local access roads or from less densely populated areas and distribute the traffic to rural major collectors or directly to the State Highway system. Typically traffic volumes are between 1,000 and 4,000 vpd.

West Malaga Road is a Rural Major Collector providing the primary circulation and access route within the Malaga subarea.

Local Access Roads

Roads not classified as collector roadways are designated as local access roads. Local access roads provide for access to individual properties, commercial businesses, and similar traffic destinations. Local access roads typically carry low volumes of traffic (less than 1,500 vpd), at relatively low speeds. Through traffic is discouraged through appropriate geometric design and/or traffic control devices.

Modifications to the Functional Classification System

Figures 5-1 through 5-5 and Table 5-2 show the classification of existing and planned streets within the County. The primary changes in functional classification from the prior Transportation Element include:

- **Bergstrasse/Detillion Road:** Reclassified Bergstrasse/Detillion Road in the Leavenworth UGA from a local street to a urban collector. The revised classification is consistent with the City's updated Transportation Element and identifies this existing corridor as another primary link between Titus Road and Ski Hill Drive. It is a logical location for an improved east-west connection because it already exists, has few direct access points to adjoining properties, and has sufficient right-of-way necessary for urban amenities, such as sidewalks.

- **Peters Street:** Reclassified Peters Street in the Sunnyslope UGA to urban collector because it is one of the primary east/west routes and connects to both Easy Street and Ohme Gardens Road.
- **Ohme Garden Road:** Reclassified Ohme Garden Road in the Sunnyslope UGA to urban collector because it provides a primary connection to US 97A.
- **Village View Drive:** Reclassified a portion of Village View Drive in the Leavenworth UGA that is west of a proposed north-south collector linking Titus Road to Village View Drive. The roadway links this future north-south collector with Ski Hill Drive.
- **Dixie Lane:** Reclassified Dixie Lane in the Malaga subarea to a rural minor collector because it provides a primary east/west connection and is expected to serve higher levels of traffic and non-motorized activity in the future.
-

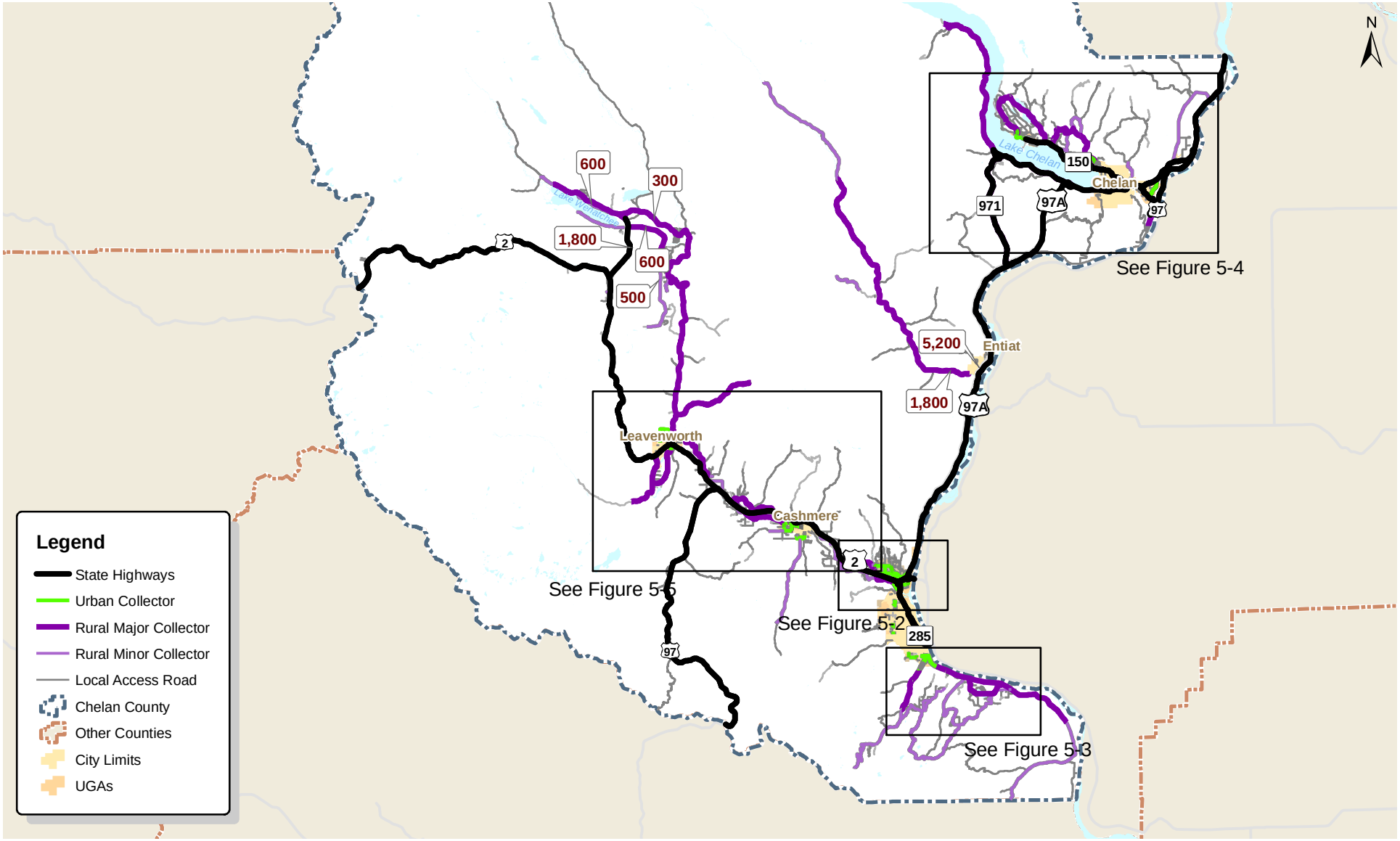
Table 5-2. Functional Classification of County Roads

Urban Collector	Rural Major Collector	Rural Minor Collector
American Fruit Rd	Boyd Rd	Apple Acres Rd
Crestview St	Chiwawa Loop	Binder Rd
Easy St. (Sunnyslope)	Chumstick Hwy	Boyd Loop Rd
Lower Monitor Rd	Cooley Rd	Camp 12 Dr
Lower Sunnyslope Rd	N Dryden Rd	Cedar Brae Rd
Bergstrasse/Detillion Rd	Eagle Creek Rd	County Rd 711
Peters St	Easy St	W Edgemont Dr
Ohme Garden Rd	Entiat River Rd (south section)	Entiat River Rd (north section)
Village View Dr	Evergreen Dr	Jagla Rd
	Goodwin Rd	Johnson Rd
	Icicle Rd	Joe Miller Rd
	Klate Rd	Kinney Rd
	Lake Wenatchee Hwy	Loop Rd
	E Leavenworth Rd	Main St (Dryden)
	Lower Joe Creek Rd	Mad River Rd
	Main St (Peshastin)	Mission Creek Rd
	Malaga Alcoa Hwy	North Shore Dr
	W Malaga Rd	Old Monitor Rd
	Manson Blvd	River Rd
	Navaree Coulee Rd	School St (Peshastin)
	North Rd	Ski Hill Dr
	Pioneer Dr	Sleepy Hollow Rd
	School St (Sunnyslope)	Stemilt Creek Rd
	Squilchuck Rd	Stemilt Hill Rd
	Sunset Hwy	Titus Rd
	Stenehill Rd	Union Valley Rd
	Wapato Lake Rd	Wenatchee Heights Rd
		Winesap Ave
		Dixie Ln

SOURCE: Chelan County
BOLD: 2009 planned modifications

Traffic Volumes

Average daily volumes for 2008 were collected at about 100 locations throughout the County. An extensive data collection survey was performed by the County in March and April 2008. Existing daily traffic volume information collected by WSDOT, WVTC and other agencies was also used. Data from previous years were adjusted by applying appropriate growth rates derived from historical trends or data at other nearby count locations.



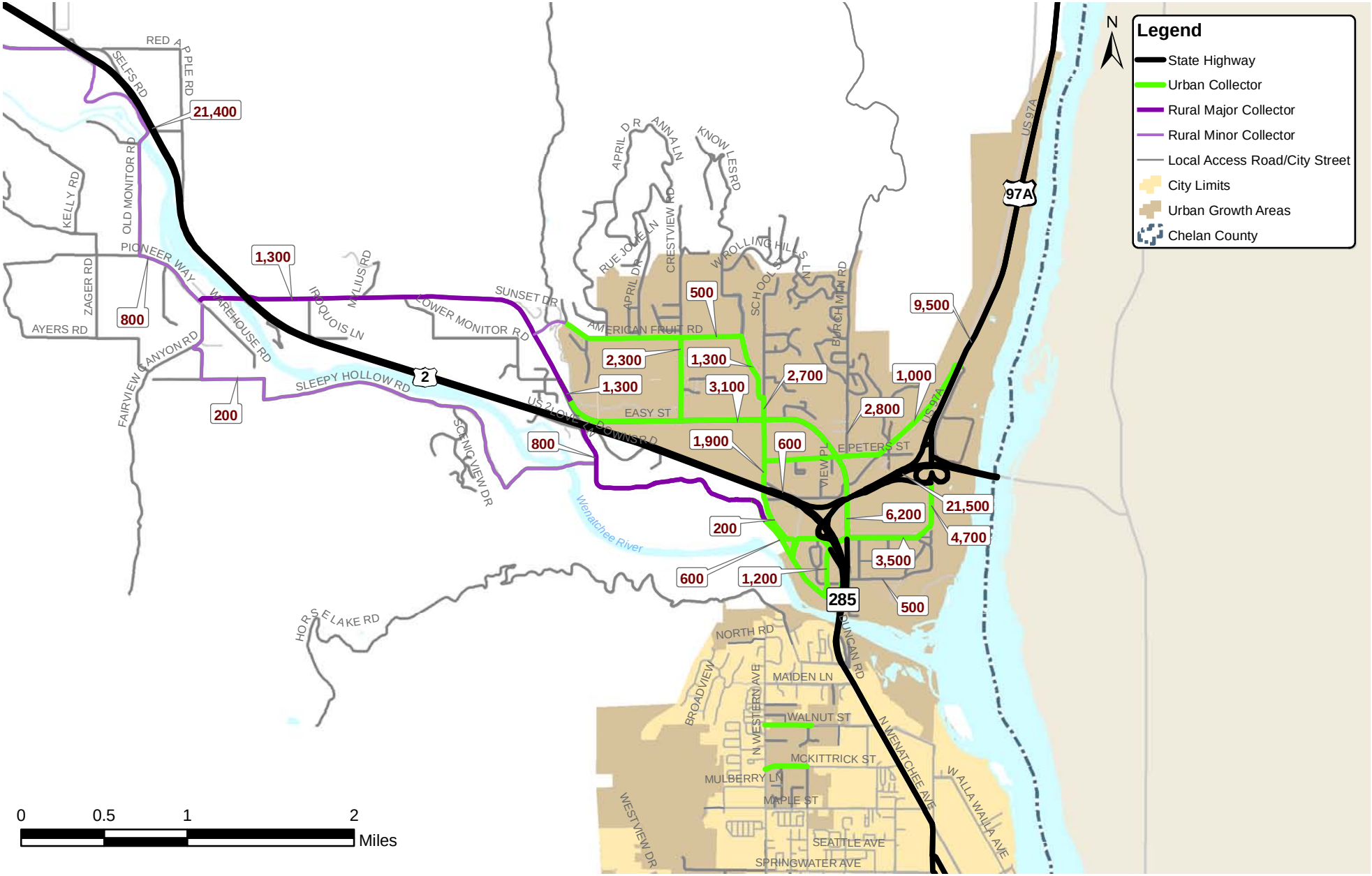
Functional Classification & 2008 Average Daily Volumes (Countywide)

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\\Report Figures\Volume_Func Clas_County.mxd

transpoGROUP

FIGURE
5-1



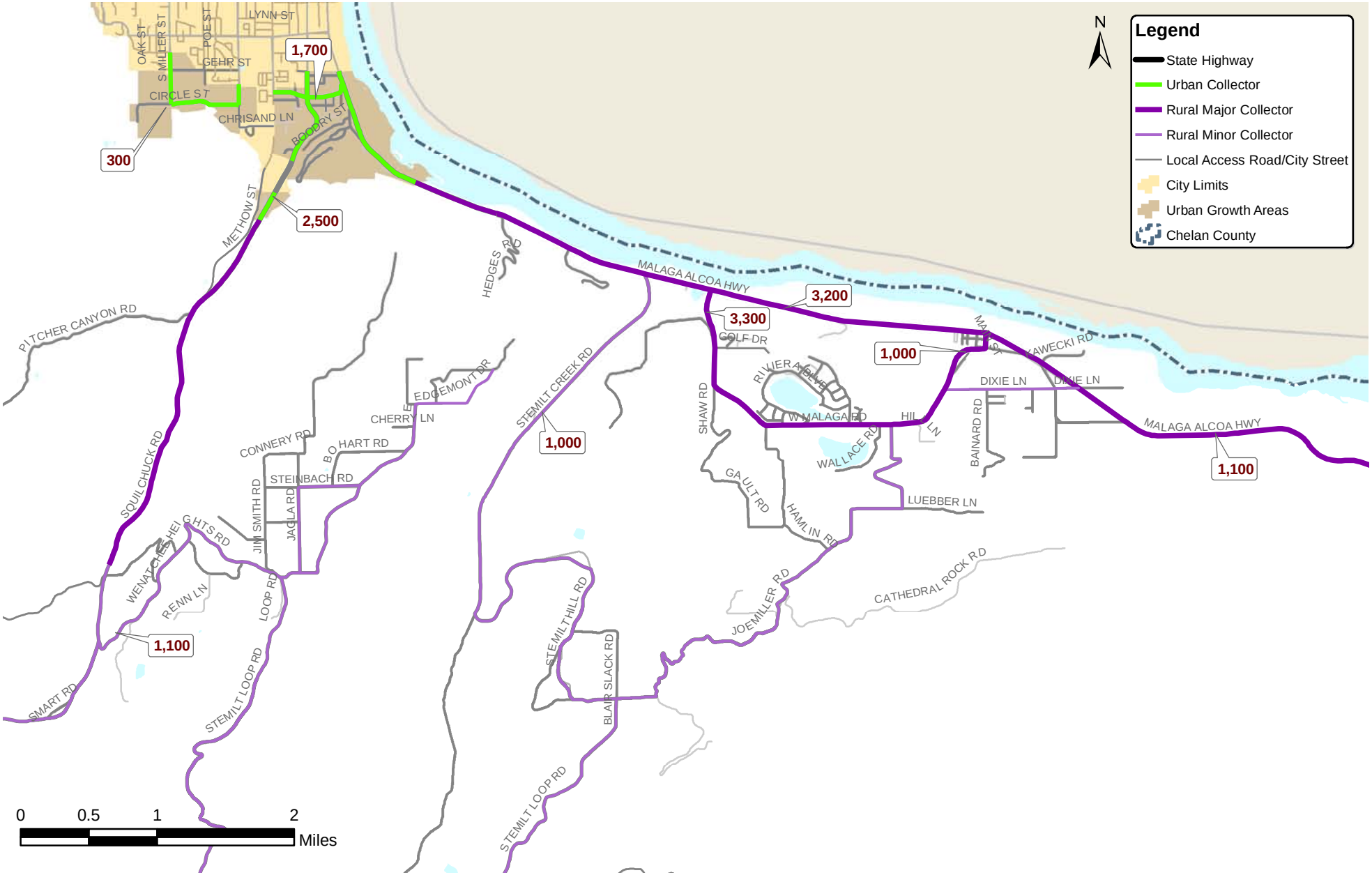
Functional Classification & 2008 Average Daily Volumes (Greater Wenatchee)

FIGURE **5-2**

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\Volume_Wenatchee Sub.mxd

transpoGROUP



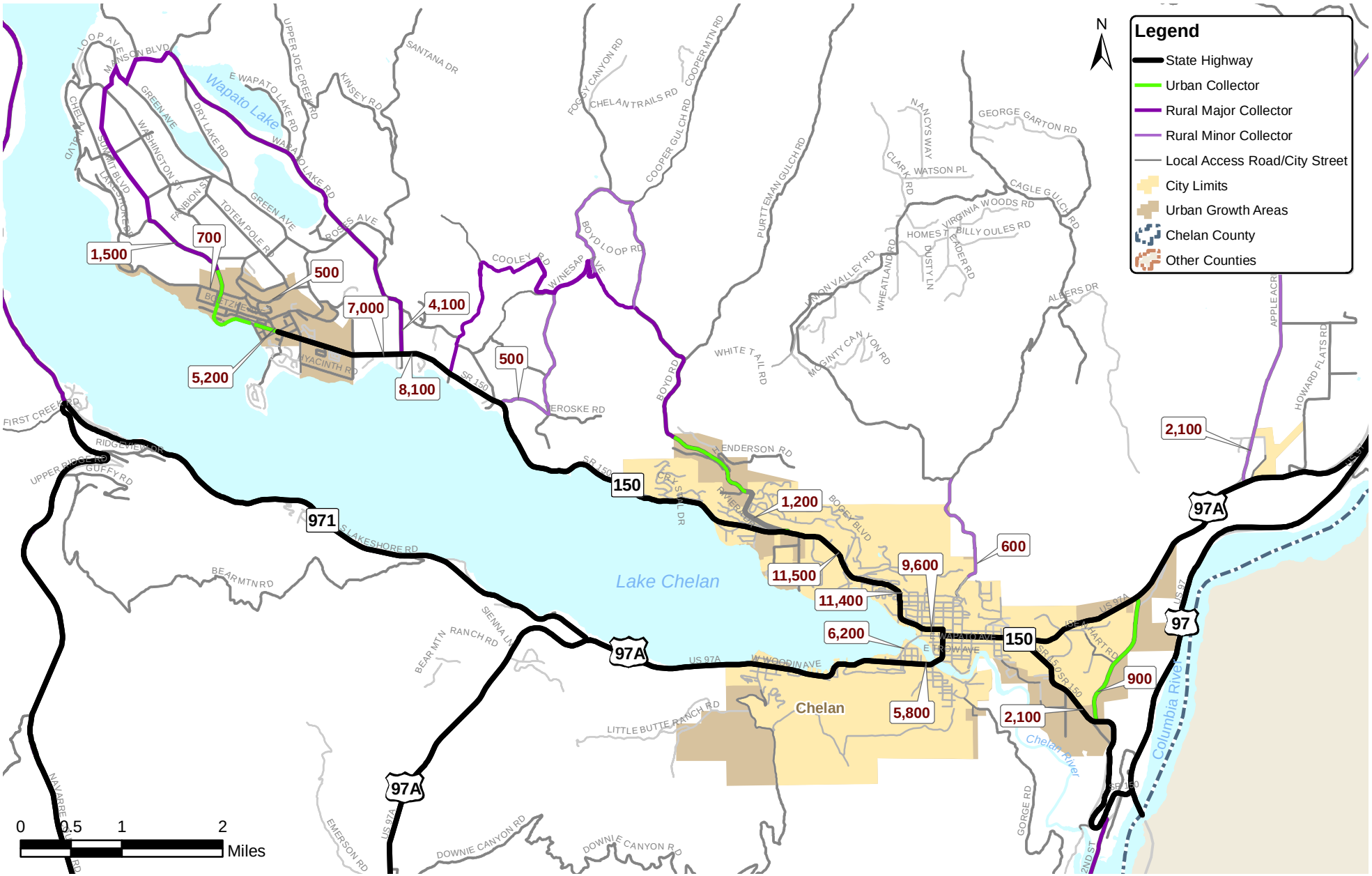
Functional Classification & 2008 Average Daily Volumes (Malaga Subarea)

FIGURE **5-3**

Chelan County Transportation Element

transpoGROUP

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\Volume_Malaga Sub.mxd



Functional Classification & 2008 Average Daily Volumes (Chelan/Manson Subarea)

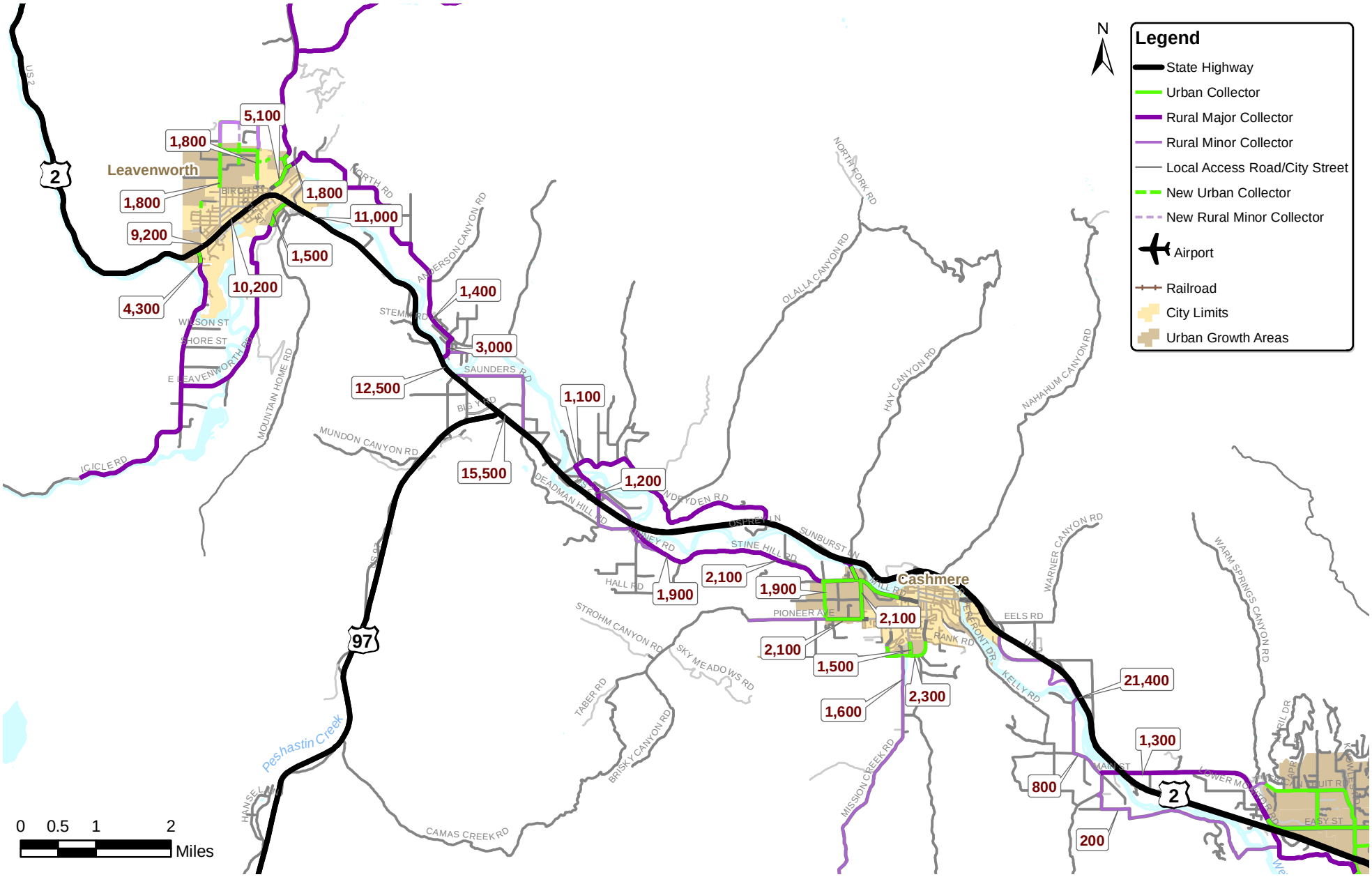
Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Subarea Maps\Imp Maps\FIG5-4_Volume_Chelan.mxd

transpoGROUP

FIGURE

5-4



Functional Classification & 2008 Average Daily Volumes (Leavenworth/Peshastin/Cashmere Subarea)

Chelan County Transportation Element

FIGURE **5-5**

transpoGROUP

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIG5-5_Volume_Cashmere Sub.mxd

Seasonal adjustment factors were also applied to derive annual average conditions based on traffic counts collected throughout the year. All count locations were classified as experiencing limited, medium or high seasonal variations based on recreational influence. Monthly adjustment factors for each category were derived from locations in the County where automated data collection systems are available to monitor traffic volumes throughout the year.

Figures 5-1 through 5-5 present the 2008 daily volumes on the County roadway and State Highway system. All locations with average daily traffic volumes over 7,000 vpd are on State Highways or City arterials. The highest traffic volumes on County roads range from 3,000 to 6,500 vpd; they are located in the Sunnyslope area (Easy Street, Euclid Avenue, Penny Road), Leavenworth (Chumstick Highway, Icicle Road), Malaga (Malaga Alcoa Highway, West Malaga Road) and Peshastin (Main Street). The vast majority of the County roads have average daily volumes of less than 2,000 vpd.

Peak hour traffic counts at major intersections throughout the County were also assembled to support analysis of intersection levels of service. Many recent turning movement counts were available from WVTC. Additional PM peak hour turning movement counts were collected to supplement the WVTC data for purposes of the Transportation Element.

Traffic Safety

Traffic accident information was obtained from WSDOT; they maintain a comprehensive database for all accidents occurring on Washington State Highways, roads, and streets. The dataset covered the period between 2005 and 2007; the 2008 data was not available yet.

Table 5-3 summarizes the number of accidents that occurred on State Highways and County roads within Chelan County.

Table 5-3. Traffic Accident Summary for Chelan County (2005 to 2007)

	2005	2006	2007	TOTAL
State Highway Accidents				
Fatal Collisions[1]	2	2	2	6
Injury Collisions[2]	213	264	238	715
PDO Collisions[3]	456	434	415	1,305
Subtotal State Highways	**671**	**700**	**655**	**2,026**
County Road Accidents				
Fatal Collisions	1	0	3	4
Injury Collisions	60	61	57	178
PDO Collisions	132	133	130	395
Subtotal County Roads	**193**	**194**	**190**	**577**
State and County Roads				
Fatal Collisions	3	2	5	10
Injury Collisions	273	325	295	893
PDO Collisions	588	567	545	1,700
Total State and County Roads	**864**	**894**	**845**	**2,603**

SOURCE: WSDOT Collision Reports
1. Collisions with at least one fatality
2. Collisions with at least one injury
3. Collisions with personal damage only

On average, about 870 accidents have been reported annually on State and County roads within Chelan County between 2005 and 2007. A total of four fatalities (in four separate

accidents) have been reported on County Roads between 2005 and 2007; Entiat River Road and Squilchuck Road each experienced two fatalities.

Accident data available for State Highways are summarized on Table 5-4. On State Highways, the studied dataset covered the period between 2003 and 2007, the latest available. The table shows the number of accidents reported on State Highways between 2003 and 2007. The available dataset did not include SR 285 (most of this facility is within the City of Wenatchee).

Table 5-4. State Highway Accident Summary (2003 to 2007)

State Route	Functional Class	Length (m)	Total Cols	Avg 04-07 ADT[1]	Avg Acc Rate[2]	2006 Statewide Avg Acc Rate[3]
US 2	Principal Arterial	55.0	1,061	12,700	0.83	1.13
US 97	Principal Arterial	83.3	448	4,600	0.64	1.13
US 97A	Minor Arterial	39.8	405	5,500	1.01	1.47
SR 971	Collector	15.0	35	1,100	1.16	1.55
SR 150	Collector	11.8	132	6,400	0.96	1.55
SR 207	Collector	4.4	15	1,700	1.10	1.55
TOTAL		**214.4**	**2,104**		**1.00**	

SOURCE: WSDOT State Route Crash History
1. Average annual daily traffic between 2004 and 2007 (from WSDOT Traffic Report)
2. Average accident rate per million vehicle miles traveled
3. Statewide average accident rate by functional class (from 2006 WSDOT State Highway Collision Data Summary)

Average collision rates on State Highways within Chelan County range between 0.64 and 1.16 accidents per million vehicle miles of travel. Statewide, in 2006, rural areas experienced an accident rate of 1.13 accidents per million vehicle miles of travel on principal arterials, 1.47 accidents per million vehicle miles on minor arterials, and 1.55 accidents per million vehicle miles on collectors. Average accident rates on State Highways within Chelan County appear to be lower than statewide averages.

Table 5-5 provides additional information on the severity of the accidents reported on State Highways between 2003 and 2007.

Table 5-5. Severity of Accidents on State Highways (2003 to 2007)

State Route	Total Cols	Fatal Cols[1]	Injury Cols[2]	PDO Cols[3]	Number Injuries[4]	Number Fatalities[5]	Number Vehicles[6]
US 2	1,061	13	418	630	700	14	1,619
US 97	448	9	179	260	264	11	565
US 97A	405	2	144	259	220	2	546
SR 971	35	2	12	21	18	2	40
SR 150	132	1	44	87	71	1	217
SR 207	15	0	4	11	9	0	23
TOTAL	**2,104**	**27**	**805**	**1,272**	**1,289**	**30**	**3,020**

SOURCE: WSDOT State Route Crash History
1. Number of collisions with at least one fatality
2. Number of collisions with at least one injury
3. Number of collisions with personal damage only (PDO)
4. Total number of injuries
5. Total number of fatalities
6. Total number of vehicles involved

Truck Routes

The movement of freight and goods is an important function of the County transportation system. The County's industrial businesses and agricultural community rely on the County roadway system to transport crops to distribution centers and agricultural businesses throughout the County.

Washington State Freight and Goods Transportation System

The Washington State Freight and Goods Transportation System (FGTS) is a classification system adopted by WSDOT and used to classify State Highways, County roads and City streets according to the average annual gross truck tonnage they carry. The FGTS is maintained by WSDOT and was last updated in 2007.

The FGTS classifies roadways using five freight tonnage classifications, T-1 through T-5, as follows:

T-1: more than 10 million tons per year
T-2: 4 million to 10 million tons per year
T-3: 300,000 to 4 million tons per year
T-4: 100,000 to 300,000 tons per year
T-5: at least 20,000 tons in 60 days

State Highways within Chelan County classified as T-1 or T-2 are shown on Table 5-6. All FGTS classifications are shown graphically on Figure 5-6. The table shows the estimated annual tonnage as reported in the 2007 update of the FGTS. No roads under Chelan County's jurisdiction are classified as T-1 or T-2. The County road system has a total of 124.9 miles classified in the FGTS: 33.6 miles classified as T-3, 39.6 miles as T-4 and 51.6 miles as T-5.

Table 5-6. FGTS T1 and T2 Classifications in Chelan County

State Highway	Description	Milepost begin - end	FGTS Class	Average Annual Daily Truck Volume[1]	Annual Tonnage[2]
2	US 97 to SR 285	104.74-118.90	T-2	1,900	7,410,000
2	SR 285 to Chelan/Douglas Co. line	118.92-119.92	T-1	2,300	9,390,000
97	Klittitas/Chelan Co. line to US 2 (Peshastin)	163.72-185.02	T-2	1,000	6,070,000
97	Douglas/Chelan Co. line to SR 150	234.87- 235.10	T-2	1,000	4,550,00
97	SR 150 to Chelan/Okanogan Co. line	235.10-246.97	T-2	690	3,120,000
97A	US 2 to Ohme Garden Rd/Warehouse Rd	199.83-200.47	T-2	1,200	6,770,000
285	Douglas/Chelan Co. line to Wenatchee Avenue	0.28-0.39	T-2	2,100	5,370,000
285	Wenatchee Avenue to Ferry St	0.39-0.71	T-2	1,600	4,160,000
285	Miller St to US 2	3.05-5.04	T-2	1,200	3,620,000

SOURCE: WSDOT Freight and Goods Transportation System (2007)
1. Estimated 2007 annual average daily truck traffic
2. Estimated amount of freight carried in 2007 (in gross tons)

A survey of truck traffic reported in 1998 provides information on truck origins and destinations at the County level (Eastern Washington Intermodal Transportation Study). US 97 and US 2 had the highest amount of truck traffic for trips that either originate or end

within Chelan County. Traffic levels for both major routes (US 2 and US 97) peak during the summer with daily volumes approximately double the traffic levels in other seasons. The vast majority of truck traffic originated from the City of Wenatchee. In terms of trucks destined for Chelan County, the largest number of trucks was going to Wenatchee,

Seasonal Weight or Emergency Restrictions

The Board of County Commissioners (BoCC) may by resolution limit or prohibit classes or types of vehicles on any County road or bridge and may limit the weight of vehicles which may travel thereon (County Code Chapter 8.08). Any such resolution shall be effective for a definite period of time which shall be stated in the resolution.

In addition, emergency winter restrictions may be placed on any County road that, in the opinion of the Chelan County Engineer, should be so restricted, without further resolution of the BoCC.

Figure 5-6 identifies seasonal weight restrictions identified in the FGTS classification from WSDOT.

Existing Roadway System Deficiencies

Within Chelan County, the need for road improvements is primarily based on the following safety issues:

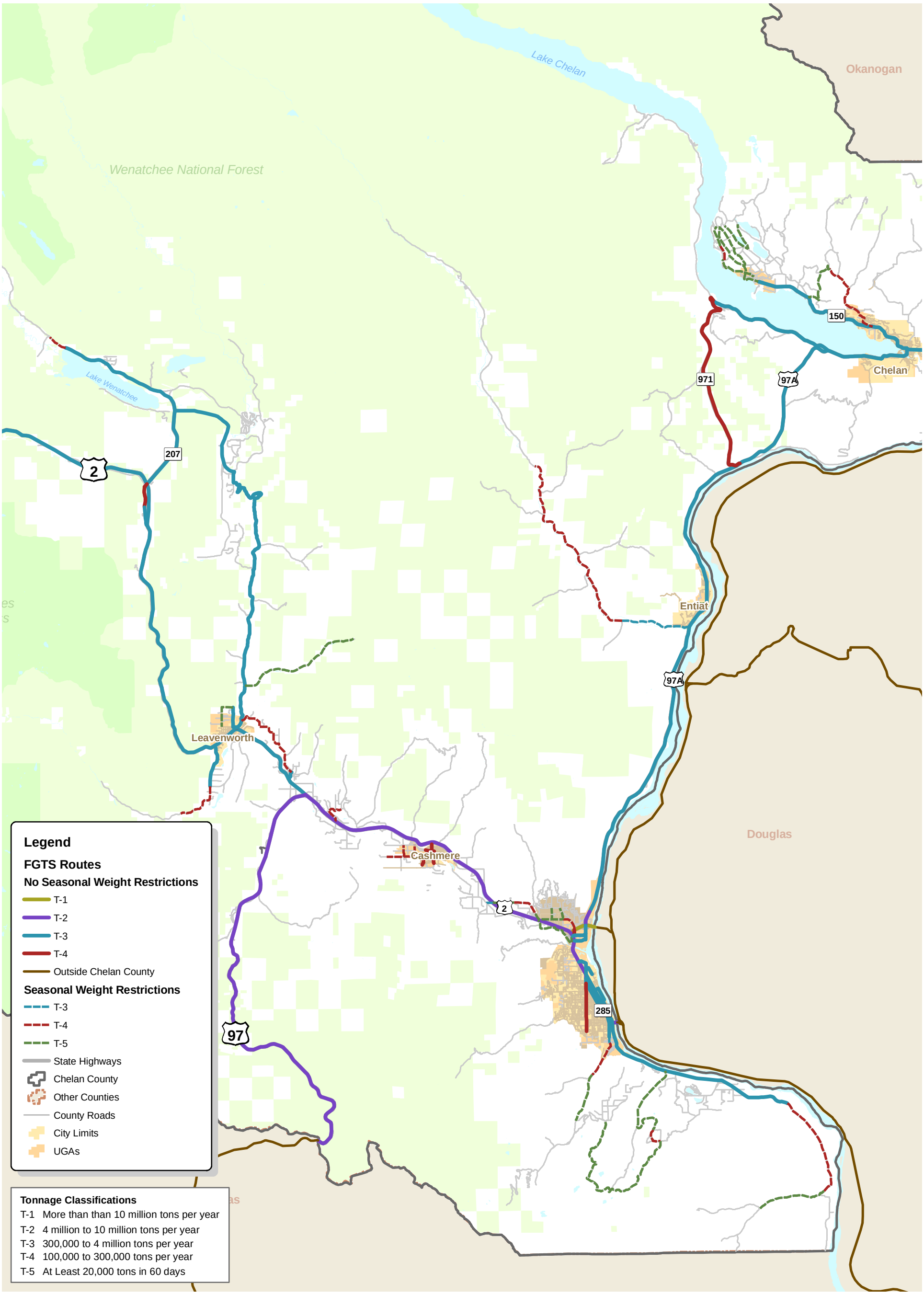
- narrow roads
- poor geometry (sharp curves, steep hills)
- pavement conditions
- all-weather surfacing of roadways subject to seasonal closures or weight restrictions
- hard surfacing of gravel roads
- structurally deficient or functionally obsolete bridges
- improved pedestrian and bicycle facilities

Most County roadways have narrow, if any, shoulders.

Preservation and Maintenance

Maintenance and preservation are vital to keeping the roadway system in good working order, ensuring the usefulness of prior transportation investments and reducing future deficiencies. Maintenance activities should preserve the system of roads and bridges, and maintain access throughout the year for major roads serving as primary emergency response routes, school bus routes, transit routes, and postal service routes.

As required by the State, the County maintains a Pavement Management System (PMS), also known as “Mobility,” to monitor pavement conditions and to implement its overall maintenance program. It provides for a regular schedule of rehabilitation, reconstruction, and replacement to keep the system useable, reduce capital expenditures, and to upgrade roadways to meet changes in design and performance standards. However, available funding is lacking, particularly for major investments in upgrading County collector and local access roadways. Many County roads were built with inadequate base material and are deteriorating more quickly than they can be rehabilitated. In addition, many roadways were built primarily to serve rural and agricultural purposes, but now are being used as primary access or alternative routes for new residential homes being built in the unincorporated areas of the County.



Truck Classifications & Weight Restrictions in Chelan County

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\ReportFigures\FGTS_revised.mxd

transpoGROUP

FIGURE
5-6

The County performs regular maintenance to its roadway system. The major maintenance activities include:

- Chip sealing of roads that have a Bituminous Surface Treatment
- Pot hole patching
- Gravel road maintenance
- Shoulder maintenance
- Roadside maintenance
- Bridge repair and maintenance
- Guardrail repair and maintenance
- Signing and striping
- Snow plowing and ice removal.

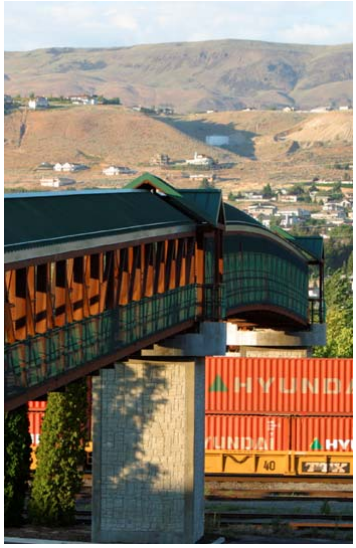
Road Standard Deficiencies

Most transportation deficiencies on County roadways are related to roadways not meeting current design standards. Geometric design standards are defined in the County Code (Chapter 15.30) and address pavement widths, roadway grade, design speeds, and other elements. Other standards are defined to specify parking requirements, snow storage conditions, as well as surfacing and pavement requirements.

Many of the County's roadways have minimal paved or gravel shoulders except in limited locations. The County also has many roads with unimproved gravel surfaces. Inadequate turning radius can also be an issue for trucks on narrow roads and bridges.

Bridges

According to the 2005 Annual Report of the County Road Administration Board (CRAB), 11 of the 46 County bridges were classified as deficient, either structurally deficient or functionally obsolete. Chelan County is not unique; statewide, the report identified almost 700 deficient bridges under the jurisdiction of a County in Washington State. The County recently was awarded a grant to improve the West Monitor Bridge, one of the 11 noted in the report.



A trail bridge in Wenatchee over the BNSF railroad tracks.

Road Safety

Improving traffic safety conditions is a priority of the County, as explained in Chapter 7 of the Transportation Element, and a number of safety improvement projects are identified in long-term project list. Traffic safety concerns have been identified at a number of locations throughout the County. Safety issues call for large scale corridor improvement programs, such as the one undertaken by WSDOT for the US 2/97 corridor between Peshastin and Sunnyslope, or localized spot improvements.

US 2/97 is a major source of safety concern due to speed, congestion, poor visibility, high number of access points and stoplights, and conflicts between vehicles and non-motorized users. In general, the safety concerns are often linked to difficult access to the highways from the side-streets.

In Leavenworth, there are safety issues related to sight distances at a number of intersections, both on US 2 (East Leavenworth Road at the Bridge) and on local streets

(Titus, Pine, Fir, Cedar and Chumstick). These safety issues emerged through prior discussions with the stakeholders.

In the Peshastin/Dryden area, safety concerns are related to increasing volumes with additional commercial development along US 2 and along the Old Peshastin Bridge. The old railroad underpass along Main Street is also a concern due to limited sight distance and a geometrically deficient intersection design. Accident data along the US 2/97 corridor show that the intersections with the most mainline and side-street turning movements are those with the highest accident rates (Cotlets Way, Main Street/Easy Street, and Easy Street intersections).

Safety issues have been identified in Entiat along SR 97A in relation with intersections and local access points.

Farm-to-market routes in and around Manson are a safety concern because there is increased tourism traffic on roads that are already substandard. Heavy seasonal traffic along SR 150 in Chelan and Manson create pedestrian and bicycle safety concerns and increase community support for an alternative route to Manson.

Operating Conditions

Operating conditions are typically measured by evaluating the intersection level of service (LOS), and comparing it an adopted standard. The adopted LOS standard for intersection in Chelan County is LOS C for rural areas and LOS D for intersections in urban growth areas. This standard is applied to State Highways and County roads and is measured by the Highway Capacity Manual methodology.

There is a general perception that the County is experiencing more and more traffic delays, even outside of the Wenatchee metropolitan area. This is primarily related to increased tourism in the rural and agricultural areas, as well as new residential developments in areas such as Sunnyslope, Leavenworth, Malaga, Chelan and Manson. However, it should be noted that in many cases, the perceived congested conditions are not consistent with the calculated LOS based on Highway Capacity Manual methodology as compared to the State and County LOS standards.

In 2006, the North Central RTPO conducted a regional intersection level of service analysis as part of the Regional Transportation Plan update. The analysis included 77 major intersections within Chelan County (see Appendix G). It was found that all intersections currently operate at an acceptable level of service, and most intersections operate at LOS A. Only two intersections were found to operate at LOS C: the intersections of US 2 with Easy Street in Sunnyslope, and the intersection of US 2 with Chumstick Highway in Leavenworth.

Analysis conducted as part of the 2008 Transportation Element focused on major intersections located in the Sunnyslope and Leavenworth areas. The intersection operations analysis was limited to these areas because on higher traffic volumes and the potential for greater growth. Very few areas within the unincorporated parts of Chelan County have intersection operational issues. In fact, the only traffic signal owned by the County is at the Penny Road / Easy Street intersection (in the Sunnyslope subarea) and it is maintained by WSDOT.

Table 5-7 presents the results of the 2008 intersection level of service analysis.
The intersection level of service was measured by calculating the average delay across all approaches, or the delay on the worst movement for unsignalized intersections.

The intersection operations analysis conducted in 2005 as part of the City of Chelan Downtown Circulation Enhancement Study was reviewed to verify the analysis still provided a reasonable baseline. The traffic counts collected in 2008 were comparable to the 2005 traffic counts for a majority of the intersections; therefore, no updated operational analysis was performed.

Table 5-7. 2008 Intersection Level of Service Summary

			2008 Average Weekday PM Peak Hour		
Intersection	**Jurisdiction**	**LOS Standard[1]**	**LOS[2]**	**Delay[3]**	**V/C or WM[4]**
Leavenworth Area					
US 2 / Chumstick Highway	WSDOT	D	C	27.4	0.47
US 2 / E. Leavenworth Road	WSDOT	D	C	24.9	SB
US 2 / Evans Street	WSDOT	D	C	21.4	0.41
US 2 / Front Street	WSDOT	D	A	8.3	WBL
US 2 / Icicle Road	WSDOT	D	C	18.1	NBL
US 2 / Mill Street	WSDOT	D	B	13.6	SB
US 2 / Riverbend Drive	WSDOT	D	B	10.2	0.42
US 2 / Ski Hill Drive	WSDOT	D	C	17.1	SB
Chumstick Highway / Cedar Street	City	D	B	12.3	EB
Chumstick Highway / North Road	County	D	A	9.9	WB
Icicle Road / E. Leavenworth Road	County	D	A	8.9	WB
Pine Street / Titus Road	City	D	A	7.6	-
Sunnyslope Area					
Ohme Garden Road / US 97A	**WSDOT**	**D**	**F**	**78.0**	**WB**
US 2/ Easy Street	WSDOT	D	C	27.9	0.52
US 2/ Lower Sunnyslope Road[5]	**WSDOT**	**D**	**F**	**80.9**	**SB**
US 2/ School Street[5]	**WSDOT**	**D**	**F**	**125.8**	**SB**
Easy Street / Crestview Street	County	D	A	9.8	SB
Easy Street / School Street	County	D	B	11.7	NB
Knowles Road / School Street	County	D	A	8.7	EB
Melody Lane / School Street	County	D	A	9.6	WB
Penny Road / Cordell Avenue	County	D	C	21.9	0.29
Penny Road / Easy Street	County	D	B	13.1	0.45
Peters Street / Birch Mountain Road	County	D	A	9.0	SB
Peters Street / Easy Street	County	D	C	15.8	WB
Peters Street / Ohme Garden Road	County	D	A	8.8	WB
School Street / Lower Sunnyslope Rd	County	D	A	8.6	WB
School Street / Peters Street	County	D	A	9.1	WB

SOURCE: Transpo Group 2008
1. Adopted level of service standard
2. Level of Service, based on 2000 Highway Capacity Manual methodology.
3. Average delay in seconds per vehicle.
4. Volume-to-capacity ratio reported for signalized intersections. Worst movement is reported for unsignalized intersections. This is not applicable (NA) to all-way stop controlled intersections.
5. Intersection to be planned to be revised to right-in/right-out by WSDOT, thereby addressing the LOS deficiency

Three intersections (all on State Highways) among those evaluated as part of the Transportation Element were found to operate below the State's LOS D standard for Highways of Statewide Significance in urban areas. These three intersections are located in the Sunnyslope UGA. These intersections had not been identified as deficient in the RTPO regional level of service analysis, likely due to differences in the methodology used to report the level of service.

County maintained roadways have few congestion issues. Congestion is typically observed on State Highways or along City arterials.

US 2 between Leavenworth and Wenatchee experiences operational issues on a relatively regular basis. In Leavenworth, the US 2 intersections at East Leavenworth Road, Ski Hill Drive and Chumstick Highway have been identified as the most congested. The most congested local street location was the Cedar/Fir Street intersection with Chumstick Highway.

In Cashmere, operational issues also are located along US 2 and are mostly due to turning movements on and off the highway at locations such as Cotlets Way, Goodwin Road, Red Apple Road and Old Monitor Road intersections.

Highway 150 in the Chelan area can experience congestion during the summer months that is related to increased development, both residential and tourist-related. Congestion is noted as having a negative impact on the City of Chelan, particularly on Highway 150 and on the Woodin Avenue Bridge. Additionally, there is a noticeable increase of truck traffic during harvest season that can impact overall intersection operations.

Need for Alternate Routes

New roadway corridors were identified as potentially being needed to improve transportation network connectivity, accommodate future growth, provide alternate access for emergency vehicles, and allow for an alternate County maintained route between communities to avoid needing to use the State Highway system.

The following routes and connections have been identified and are described further in the Transportation Improvements section of the plan (Chapter 8):

- Alternate route between Manson and Chelan
- Alternate route between Cashmere/Monitor and Wenatchee
- New east/west connector in Leavenworth's UGA
- New east/west connector in Sunnyslope
- New interchange along US 2 near School Road in Sunnyslope

Seasonal Traffic Variations

Many areas within the County experience significant variations in traffic volumes during the year, primarily related to recreational and tourism activities. The segment of US 2 through Leavenworth experiences extreme seasonal changes in traffic, as well as high volumes of weekend travel. Summer traffic in Leavenworth typically is significantly higher than other times of the year. This is primarily due to the tourism and recreational activities occurring in and around Leavenworth that bring more traffic during the summer, both with travelers coming into town or just passing through. The Chelan and Manson areas also experience higher traffic volumes in the summer season due to tourism and recreational activities.

Transit System

LINK Transit operates and provides transit services in Chelan County and western and southern Douglas County. A variety of different transit services are provided, including fixed-routes, flex routes, commuter routes, paratransit services and a seasonal route serving the Mission Ridge Ski Area. Transit is primarily funded through a 0.4 percent County sales and use tax (approved in September 1990). In 2008, LINK Transit's fleet included fifty-one buses providing fixed route and paratransit services, eleven support vehicles, and four vans. All fixed-route vehicles are equipped with wheelchair lifts and bicycle racks. All paratransit vehicles are Americans with Disabilities Act (ADA) accessible and include lifts/ramps, handrails, stop announcements, stop request devices, public address system, destination and route signs, and lighting.

LINK Transit provides a variety of different transit services within Chelan County.

Transit Services

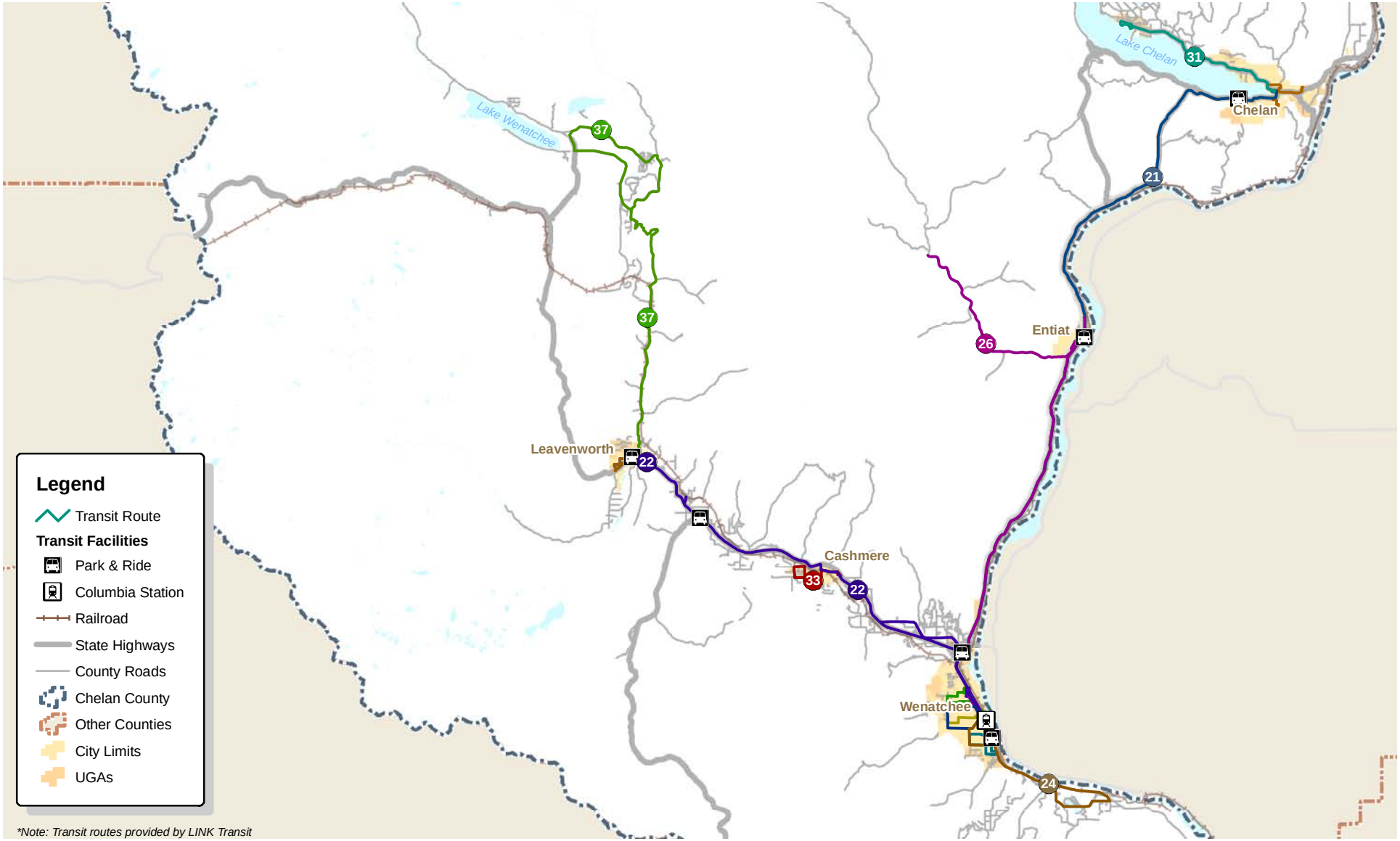
In Chelan County, LINK Transit provides connectivity to the upper Leavenworth Valley, through the small communities of Plain, Lake Wenatchee, Ardenvoir, Monitor, Cashmere, Dryden, and Peshastin, traveling distances of up to 50 miles one-way. Along the Columbia River, LINK serves the communities of Entiat, Chelan, Manson, and Douglas County, also traveling distances of up to 50 miles one-way. Additionally, the rural community of Malaga located south of Wenatchee is served by LINK Transit. Fixed transit routes in Chelan County are shown on Figure 5-7 and summarized in Table 5-8. Table 5-8 also presents peak monthly ridership statistics for each route (highest number of monthly boardings).

The Greater Leavenworth Area is now served by a General Public Dial-A-Ride (DART) service. This service is available to anyone, regardless of age, disability, trip origin or destination. Some restrictions do apply to non-ADA riders.

LINK Plus is a paratransit service provided for persons with disabilities who cannot use fixed-route service. LINK Plus is available in the same areas the fixed-route bus travels and extends 3/4 of a mile on each side of the route. It operates on a next day reservation basis. Service is provided Monday through Friday from approximately 5:00 am to 8:30 pm, and on Saturday from 7:00 am until 6:00 pm. There is no Sunday service at this time.

LINK Transit is making vanpools available to groups. Each rider pays a low monthly fare based on daily round trip mileage, insurance and capital recovery costs, and the number of riders in the van (7 passenger vehicles).

In 2007, LINK Transit experienced the same average number of boardings on all services (fixed route and paratransit) as during the year 2001 with approximately 61,000 boardings per month. Ridership statistics for the Fixed Route service has been approximately 62 percent Adults, 14 percent Senior Citizens, 19 percent Youth, and 5 percent Disabled. Monthly peak boarding counts of the fixed routes are shown on Table 5-7. Record boardings were reported in May 2008 with 82,000 total boardings and average weekday ridership exceeding 3,400. This trend was observed nationally as a response to the record-high gas prices during much of 2008.



*Note: Transit routes provided by LINK Transit

Transit Routes & Facilities

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIG5-7_Transit.mxd

transpoGROUP

FIGURE
5-7

Table 5-8. Chelan County Fixed Transit Routes and 2007 Peak Monthly Boardings

Route #	Community Served	Service Frequency	2007 Peak Monthly Boardings	Peak Months
1	South Wenatchee	Every hour	4,355	August
2	Wenatchee (Cherry/Western/Fifth Street)	Every hour	3,248	October
3	Wenatchee Valley College	Every hour	3,070	January
4	Wenatchee (Ninth St./Valley North Center)	Every hour	1,769	October
8	Wenatchee to East Wenatchee	Every hour	7,104	October
8W	Wenatchee (Valley North Center/WalMart)	Every hour M-F only	4,236	May
9	Wenatchee Trolley	Every 15 min.	6,357	August
20	Wenatchee/Chelan/Manson	4 times Mon-Fri, 3 times Sat	1,751	October
21	Wenatchee/Chelan/Manson	Every 30 min (commute service)	6,981	October
22	Wenatchee/Leavenworth	Every 30 min (during commute hours)	11,999	May
24	Wenatchee/Malaga	4 times Mon-Fri, 3 times Sat	949	October
26	Wenatchee/Entiat/Ardenvoir	4 times Mon-Fri, 3 times Sat.	1,097	October
31	Chelan/Manson	Every hour	2,255	August
32	Leavenworth Trolley	Every 30 min.	1,609	August
33	Cashmere Trolley	Every 30 min.	1,422	September
34	Chelan Trolley	Every hour	606	August
37	Leavenworth/Plain/Lake Wenatchee	4 times Mon-Fri, 3 times Sat.	508	August

SOURCE: Link Transit

Park-and-Ride Lots

LINK Transit service provides access to seven park-and-ride lots located in the communities of Wenatchee (2 lots), East Wenatchee, Leavenworth, Peshastin, Entiat, and Chelan.

Park-and-ride facilities located in Chelan County are presented on Figure 5-7 and summarized on Table 5-9.

Under agreement with WSDOT, LINK Transit has maintenance responsibilities for the Entiat, Chelan and Leavenworth park-and-ride lots. Additionally, a portion of the parking lot at LINK Transit's operations base in Olds Station is available as a park-and-ride facility.

LINK Transit recently completed a new park-and-ride in Olds Station.

Park-and-ride lots not serviced by LINK function as a Park-and-Pool facility. WSDOT owns and maintains a 28 vehicle lot at the NE corner of US 2 and Easy Street, which is often filled to capacity.

One additional parking lot at Olds Station (Penny Road) was purchased in 2007 and was recently turned into a park-and-ride lot. It has a capacity of about 200 parking spaces. This new park-and-ride lot provides easy access to buses that serve the communities of Entiat, Chelan and Manson (Routes 20, 21, 26) as well as Wenatchee and East Wenatchee (Route 8).

Table 5-9. Park-and-Ride Facilities in Chelan County

Lot Name	Community	Location	Route Numbers Served	Approx. parking spaces
Entiat P&R	Entiat	SR 97A/Entiat Way	21,26	21
Leavenworth P&R	Leavenworth	SR 2 near USFS Station	22,37	42
"Big Y" P&R	Peshastin	SR 2/ SR 97, North side	22	32
South Wenatchee P&R	Wenatchee	Mission and Stevens	1,11,12,23,25	33
Columbia Station	Wenatchee	Kittitas, Columbia and Wentchee Ave	All except 31, 32, 3, 34, 37 and DART	67

SOURCE: LINK Transit

Other Facilities

LINK Transit operates Columbia Station, a regional intermodal facility that includes an off-street transfer center for LINK Transit buses, with connections to intercity buses (Northwest Trailways), Amtrak service, taxicabs and bicycle options.

LINK Transit serves 642 bus stops system-wide of which 55 have shelters. LINK has plans to provide for improved bus stop facilities in Leavenworth and up the Entiat River valley.

Existing Transit Deficiencies

LINK Transit has identified potential areas for improvements and is currently working on implementing some of these suggestions over time.

Service Improvements and Expansion

An overall re-evaluation of transit service is needed due to the expected population growth in the area, with growing elderly population and increased demand for LINK Plus services. In its Transit Development Plan, LINK Transit has identified the need to conduct direct consultation with communities and constituencies. Some ideas for service improvements may include extended hours of operations (late evening services), higher frequencies, Sunday service, and new connections between rural communities and the Wenatchee urban area.

Need for Additional Park-and-Ride Lots

The need for additional park-and-ride lots has become a priority as the demand for service continues to grow. LINK Transit recently conducted an analysis of potential sites that could be developed as new park-and-ride lots. Potential locations have been identified and reviewed in Chelan, Leavenworth and Cashmere. New lots in Monitor and Manson were also assessed as part of the same study.

Bus Stop Accessibility

LINK Transit will continue to upgrade bus stops to improve accessibility to meet ADA requirements. Many elderly individuals cannot access fixed route services because of lack of sidewalks, curb-cuts, broken asphalt/pavement, and lack of adequate pedestrian crosswalks between their home and the closest bus stop. LINK Transit plans to continue working with local jurisdictions and private landowners to improve the pedestrian environment around bus stops, as well as the general pedestrian accessibility to bus stops.

Non-Motorized System

Only a few formal non-motorized facilities currently exist in Chelan County. Most of the existing facilities are located in the incorporated Cities or along State Highways.

While many County roads have paved shoulders, few are wide enough to provide adequate space for separating cyclists and pedestrians from motorized vehicles. Roadway shoulders are often discontinuous with varying widths that force cyclists to merge into the roadway travel lane at potentially hazardous locations. Other issues faced by the bicycle community include deficient or failing pavements, potholes, guardrails, difficult road crossings, and an absence of pavement marking and signage.

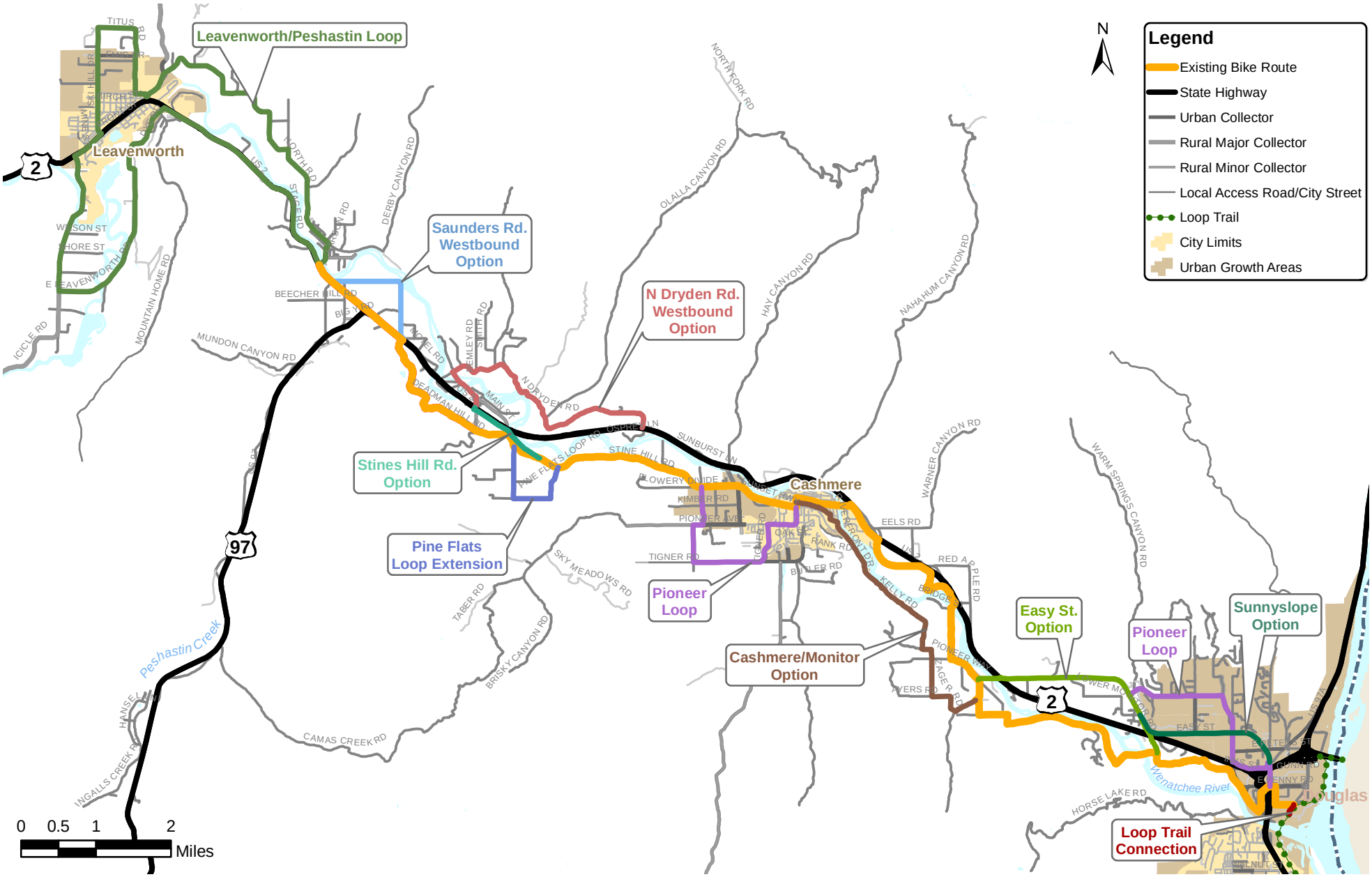
The BoCC has not formally approved or adopted designated bicycle routes on County roads. However informal routes exist and have been identified throughout the County. In the Upper Wenatchee Valley a series of bicycle routes have been identified and named by local bicycle enthusiasts. Figure 5-8 illustrates the existing Upper Wenatchee Valley bicycle routes.

New multi-use trails are a high priority for Chelan County residents.

Multi-use trails, bicycle, pedestrian and/or equestrian facilities that are separated from the roadway edge, are currently non-existent along County roads. Residents identified concerns regarding the lack of safe and convenient pedestrian facilities. Sidewalks are primarily found only in the urban cores of the communities throughout Chelan County. Typically, pedestrians must use road shoulders or walk along the edge of the roadway. Non-existent sidewalks, inadequate shoulder widths, deficient or failing pavements or difficult road crossings are frequently encountered.

Pedestrian paths and trails within the County consist of established trails that are part of the Chelan County Public Utility District (PUD), City and County park systems, and the Forest Service Trails. PUD parks with trails include Chelan Falls Park, Chelan Riverwalk Park, Walla Walla Point Park and Wenatchee Riverfront Park. City parks with trails include the Riverside Park in Cashmere, the Columbia Breaks Fire Interpretive Center in Entiat and the Waterfront Park in Leavenworth. State Parks with trails include Pinnacle State Park in Peshastin, Wenatchee Confluence State Park, and Squilchuck State Park (up Squilchuck Canyon toward Mission Ridge).

Most of the equestrian trails existing in Chelan County are on National Forest Land. No designated equestrian trails currently exist within the County, outside of State and Federal land, and a few private roads and routes along existing roads that have been designated for tourist information but which have not been developed for safe utilization by bicycles, horses or pedestrians.



Upper Wenatchee Valley Bicycle Routes

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIGX_BikeRoutes.mxd

transpoGROUP

FIGURE
5-8

Safety Data

Accident statistics involving pedestrians and bicycles were provided by WSDOT. In this case, the dataset that was analyzed is for the period between 2001 and 2007. A total of 212 accidents involving pedestrians or bicyclists were reported in Chelan County between 2001 and 2007. This represents an average of 30 accidents per year involving pedestrians or bicycles.

The majority (58 percent) of the reported accidents involving pedestrians or bicyclists occurred on City streets. Among the 124 reported accidents on City streets, the vast majority (85 percent) occurred in Wenatchee. A total of nine accidents were reported in the City of Cashmere and seven in the City of Chelan.

A total of 73 pedestrian or bicycle accidents were reported on State Highways. Among State Highways, SR 285 within the City of Wenatchee ranked first for the number of accidents, with a total of 50. US 2 had 14 accidents reported (3 within the City of Leavenworth) and US 97A had five accidents, including two at the Navarre Street (Elementary School) intersection, in the City of Chelan.

County roads accounted for a relatively small fraction of the reported pedestrian and bicycle accidents (14 accidents or 7 percent). These accidents were scattered across the County and highlighted no specific problem area or particular trend.

Existing Non-Motorized Deficiencies

The need for more and improved pedestrian and bicycle facilities emerged as a priority from the stakeholders. Providing adequate facilities for non-motorized travel along State Highways, County roads and other local roads is critical. In addition to the safety issues, there is a perception for economic development potential of improved sidewalks, bike paths and multi-purpose trails predominantly in UGA areas.

Need for New and Improved Sidewalks

A number of urban areas currently lack adequate sidewalk facilities. Examples include the Sunnyslope area (Lower Sunnyslope, American Fruit Road, School, Knowles), Manson along SR 150 and in the business and residential districts, Peshastin and Leavenworth (Ski Hill Drive, Titus Road, Chumstick Highway, Pine Street).

New sidewalks should be considered within a quarter mile of transit routes and near schools.

New sidewalks are a top priority within UGA areas, school zones, and around transit facilities.

New Trails

Trail improvements should be considered on a comprehensive, corridor basis as opposed to implementing bits and pieces that are not necessarily connected. The process should include and reference the Lake Chelan Valley Trails Master Plan, Upper Valley Regional Trails Plan, and the Greater Wenatchee Bicycle Master Plan.

New trail facilities should emphasize connectivity between communities and connections to existing recreational facilities (parks, trailheads, water access).

Some of the new trails that could be considered include:

- North Shore Pathway from Manson to Chelan along SR 150
- New trail connecting 25-mile Creek State Park to Lake Chelan State Park
- Valley Trail between Wenatchee and Leavenworth
- Connection between Sunnyslope and Loop Trail (using the new Highway 97A/Loop Trail connection built by WSDOT in Fall 2008)
- Access to Loop Trail from Maiden Lane (bridge or tunnel over railroad tracks)
- Southwest connection to Loop Trail in Wenatchee
- Connection between Cashmere public pathway and Tichnel Way

New trail facilities should emphasize connectivity between communities and connections to existing recreational facilities.

These potential new trails were reviewed and many of them are incorporated into the Transportation Element (see Chapter 8 – Transportation Improvements).

Safety Improvements

There is a general need for pedestrian and bicycle safety improvements. Some existing facilities lack adequate non-motorized accommodations, such as the Old Peshastin Bridge.

Many of the County's roadways have minimal gravel or paved shoulders except in limited locations. New construction and road improvements along roadways typically used by the bicycle community should provide a wider shoulder and additional right-of-way if needed. Shoulders should also be swept as part of the regular roadway maintenance. There are no designated bicycle routes in the County roadway system.

Schools located in rural areas often lack safe routes for students to walk and bike to school. Many schools are located on busy roads that lack sidewalks, wide shoulders, or pathways. Alternative safe walking routes need to be identified, or improvements along routes should be made.

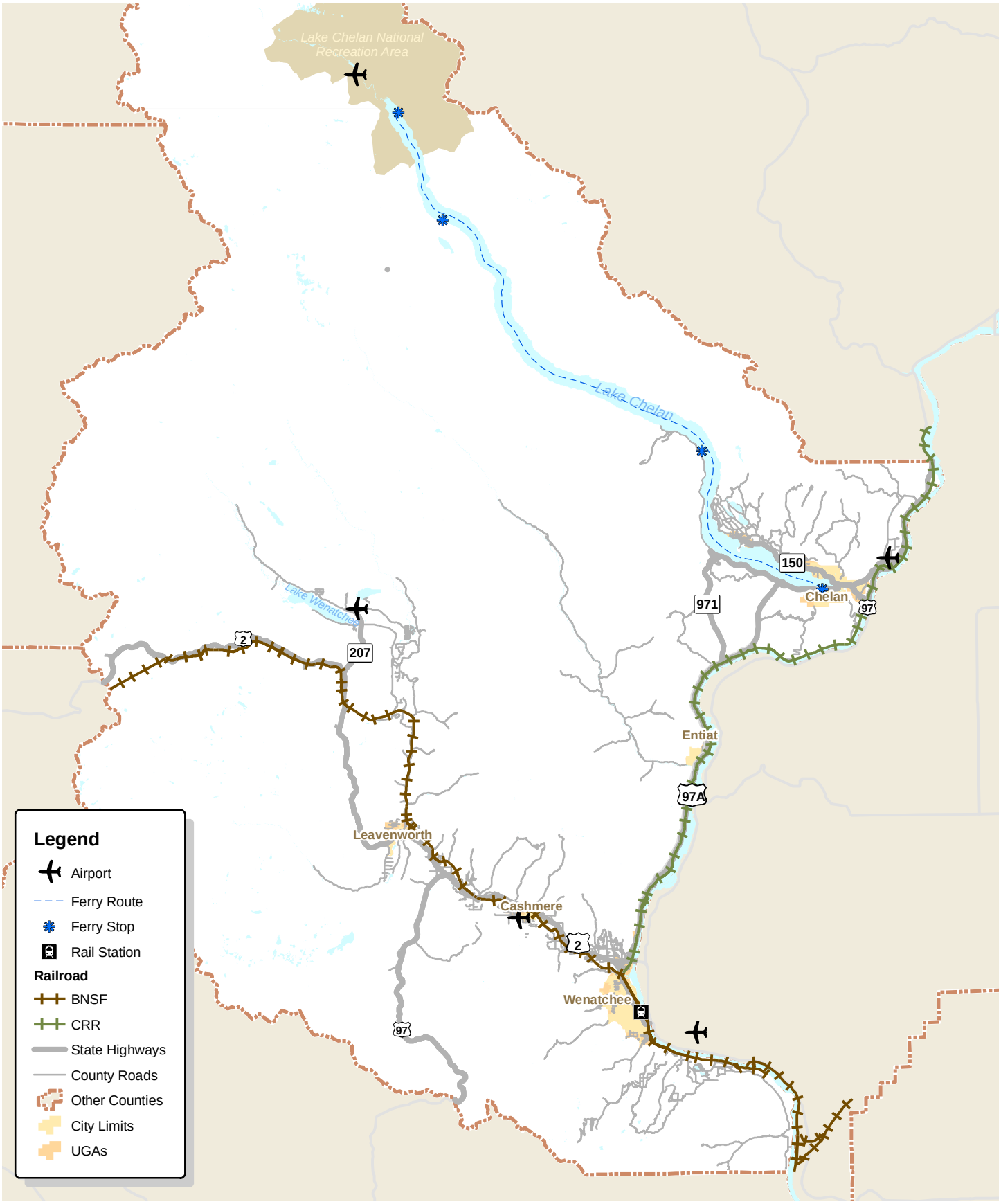
Safety improvements are needed at specific locations to improve pedestrian crossings across State Highways (Entiat, Leavenworth, Chelan), improve safety at local intersections (Leavenworth, Peshastin, Cashmere, Entiat), facilitate railroad crossings (Entiat, Peshastin), and add lighting or better manage conflicts between trucks and non-motorized users.

Other Modes

A map of existing air, rail and water transportation facilities is presented on Figure 5-8. The following is a brief description of these facilities.

Air Transportation

Aviation facilities in Chelan County consist of four airports serving general aviation users. Two airports are classified as Local Service Airports (Chelan Municipal and Cashmere-Dryden). Two other airports are classified as Recreation or Remote Airports (Lake Wenatchee State and Stehekin State).



Air, Rail, & Water Transportation Facilities

Chelan County Transportation Element

FIGURE **5-9**

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIG5-9_Airport, Rail, Water.mxd

Table 5-10 shows the airfield operations capacity and the 2005 demand based on information compiled by WSDOT[1]. The operations capacity of an airport is a measure of the theoretical maximum number of aircraft operations that can be accommodated by the runway and taxiway system.

Table 5-10. Airport Capacity and Demand

Airport	Operations Capacity (Annual Service Volumes)	2005 Annual Demand
Chelan Municipal	120,750	15,600
Cashmere-Dryden	230,000	5,588
Lake Wenatchee State	120,750	600
Stehekin State	120,750	250

SOURCE: WSDOT Airport Facilities and Services Report (2008)

Chelan Municipal Airport

Chelan Municipal Airport is owned and operated by the City of Chelan. The airport is located in the Howard Flats area located approximately five miles northeast of the City, near U.S. Highway 97. The airport is classified as a general aviation uncontrolled airport. The airport runway is 3,500 feet long. A total of 66 aircrafts are currently based at Chelan Municipal[1]. The airport averaged 36 operations per day in 2007[2].

Chelan Airways has been providing Lake Chelan air transportation and flight-seeing tours since 1945. They fly amphibious floatplanes. They offer direct flights to Stehekin in approximately 30 minutes and extended scenic flights high over the North Cascades Mountains and Glaciers. Aviation service is available seven days a week but hours vary because they fly on demand. The floatplanes use Lake Chelan and the facility is located next to the Lady of the Lake.

Cashmere-Dryden Airport

The Cashmere-Dryden Airport is located 1.1 miles southwest of Cashmere. It is a County-owned airport with a 1,800 foot asphalt runway and 60 based aircrafts[2]. The airport had 118 average operations per week in 2005[1], mostly general aviation operations and a few air taxi operations.

Lake Wenatchee State Airport

Lake Wenatchee State Airport is located 16 miles northwest of Leavenworth (north of SR 207 and northeast of Lake Wenatchee). This is a state-owned, unlit, unpaved airfield with a runway length of 2,475 feet. The airport is generally open from June 1st to October 1st. The airport had on average 50 operations per month in 2007[1]. The lake (Lake Wenatchee) is commonly used to land float planes, there are no established commercial operations.

Stehekin Airfield

The Stehekin Airfield is located on federal land, and owned and operated by WSDOT. It provides access for private landowners, commercial carriers, and recreational users. The airfield provides an alternative mode of access to Stehekin for residents or visitors. It is also used as a staging area for fire-fighting in the National Forest and National Recreation Area and for emergency evacuation. The airport averaged 21 operations per month in 2007[3].

[1] WSDOT Airport Facilities and Services Report (2008)
[2] Source: AirNav.com

Pangborn Memorial in East Wenatchee

No scheduled commercial passenger service is currently provided at airports located within Chelan County. Pangborn Memorial in East Wenatchee provides scheduled commercial service for Chelan County and its cities. Pangborn had approximately 40,000 passenger boardings in 2006[1]. The airport is served by only one carrier (Horizon) which currently offers 28 weekly departures to Seattle-Tacoma International Airport (Sea-Tac). United Express previously provided service at Pangborn up until 1997.

Based on forecasts developed by WSDOT[3], passenger enplanements at Pangborn are projected to increase 141 percent (3.6 percent per year) from 38,000 in 2005 to 93,000 by 2030. Commercial passenger aircraft operations are expected to grow more slowly than enplanements, with operations expected to increase by 19 percent between 2005 and 2030. While commuter activity is forecast to increase at 2.9 percent per year, air taxi services – which currently account for the majority of commercial passenger aircraft activity – are projected to remain constant over the forecast period.

In spite of Pangborn's long-term historic growth trend and potential for future growth, the airport may risk some potential loss in service in the future, due to the following factors:

- Traffic and operations have already declined substantially since the mid-1990's.
- For nearly a decade, Pangborn has been dependent on a single carrier, Horizon, for all of its scheduled air service.
- Horizon serves only one major destination from Pangborn: Sea-Tac.
- Horizon offers four daily flights. If Horizon retires the Dash-8 aircraft that it uses at Pangborn, it is not certain that the airline could economically sustain current frequency levels with larger replacement aircraft.
- If flight frequencies are further reduced, unit operating costs per passenger or per operation will likely increase – providing an additional impetus to remove services altogether.

Air freight volume at Pangborn is projected to grow from 650 tons in 2005 to 1,350 tons in 2030 (2.9 percent growth per year)[3]. The airport has only domestic activity. Ninety-five percent of the freight is carried by Express carriers. This represents approximately 825 average FedEx Express packages per day each way based upon the company's 2005 average Express package statistics. Pangborn did not have any air mail in 2005, the latest data in WSDOT's report.

There were about 1,200 freight operations at Pangborn in 2005 and operations are projected to grow to over 1,370 by 2030 at an average rate of 0.4 percent per year.

Rail Transportation

Passenger rail service is provided by Amtrak at Columbia Station in Wenatchee. Amtrak's *Empire Builder* travels daily between Chicago and Seattle, offering westbound service in the early morning (5:35 am) and eastbound service in the late evening (8:40 pm). Amtrak's bus service also stops at Leavenworth and Cashmere. A new train station is currently under design in Leavenworth. The station, located on North Road, will provide access to passenger rail service starting in 2009.

Rail freight facilities consist of the BNSF mainline running between Everett and Spokane, and the Columbia River Railroad Company branch line between Wenatchee and Oroville in Okanogan County. BNSF's mainline through Wenatchee and the Wenatchee River valley is a

[3] Long-Term Air Transportation Study, Phase II Technical Report, WSDOT, June 30, 2007

major transcontinental route for double-stack intermodal container trains. A predominant amount of intermodal traffic to and from the Ports of Seattle and Tacoma is handled over the Stevens Pass route. The route is heavily used, with an average of 27 trains per day (2006 data for the Washington State Transportation Commission, Statewide Rail Capacity and Systems Needs Study). These trains are usually about 1-mile long or about 60 railroad cars. The line already exceeds its practical capacity but no improvements are anticipated in the near future.

The Columbia River Railroad Company operates a short line from Wenatchee to Entiat, Chelan Falls, and north to Oroville in Okanogan County.

In addition to the BNSF line, the Columbia River Railroad Company operates a short line from Wenatchee to Entiat, Chelan Falls, Chelan, and north to Oroville. The branch line connects with the BNSF mainline in Wenatchee. It picks up and distributes railcars to individual industrial and agricultural shippers and receivers. Service varies with demand, from one round trip per day to as little as three round trips per week.

Water Transportation

Commercial water transportation includes passenger boats, commercial barges and small boat service on Lake Chelan.

The Lake Chelan Boat Company provides passenger boat service between Chelan and Stehekin with scheduled stops at Field's Point and Lucerne. Daily service is available from mid-March through October 31st, with reduced service during the winter.

Commercial water transportation is primarily provided by Tom Courtney Tug and Barge and the Lake Chelan Boat Company. For the communities of Stehekin, Lucerne and Holden, barges provide the only means of transport of large goods, fuel, building supplies, vehicles and gear not carried via smaller boat or plane. US mail is carried by the passenger ferry system. An additional small commercial boat service is also available on a limited pre-arranged basis from Chelan.

There is no established commercial water transportation in other parts of the County. However, recreational boating facilities are provided at various locations along the Columbia River, Wenatchee River, Fish Lake and Lake Wenatchee.

The Columbia River borders Chelan County to the east and provides for various water and recreation activities.

Chapter 6 – Travel Forecasting Methodology

Travel forecasts for the 20-year planning horizons were developed based on historical traffic data, existing land use information, population projections, and known commercial and industrial developments. Within each subarea, land use plans were analyzed to identify potential development activities and future land use patterns. Sketch level forecasting was used to prepare 20-year travel demand forecasts for all major County roads and State Highways serving the County subareas. The resulting travel forecasts provide a starting point for defining needed improvement projects and strategies to address existing transportation issues and anticipated growth in unincorporated Chelan County.

The following section summarizes how the land use growth rates and traffic forecasts were developed. The land use information starts with countywide data, then identifies specific subarea growth rates. A total of ten subareas were considered in the land use forecasting process, organized around three large districts. The Greater Wenatchee district includes the Subareas of Sunnyslope, Foothills, and Malaga. The Columbia River district includes the subareas of Entiat, Chelan and Manson. The Wenatchee River district includes the subareas of Cashmere/Monitor, Peshastin/Dryden, Leavenworth, and Plain/Lake Wenatchee.

Population Forecasts

The Washington State Office of Financial Management (OFM) updated its population forecasts in 2007. These projections provided three alternative growth scenarios for Chelan County and the incorporated Cities to consider: a high, medium, and a low projection.

As described in the Land Use Element of the Comprehensive Plan, Chelan County and the Cities chose to plan for the high projection as they felt it best matched the high rates of growth being experienced within the County and would provide sufficient room for growth in the 20-year planning period.

The latest High End projections indicate that the Chelan County population is expected to grow from 69,200 in 2005 to 100,700 by 2025. This represents an annual growth rate of 1.9 percent.

Chelan County and the Cities participated cooperatively in distributing the projected population throughout the different areas of the County. Three main assumptions were used to help guide this cooperative process of allocating population throughout the County:

- The OFM high series population projections most accurately reflect the current rate of population growth throughout Chelan County
- The distribution of population among the County Census Divisions (CCD) will remain consistent with the existing distribution, as has been the case since the 1970 Census
- The overall goal for the County is to achieve a split of population between urban and rural areas within each CCD of 60 percent urban, 40 percent rural.

The latest land use elements of the City comprehensive plans and subarea plans reflect these above assumptions. The population forecasts assumed in these various plans are summarized in Table 6-1.

The annual growth rates identified through 2025 were assumed to continue through the 20-year planning period for the Transportation Element, which is 2028.

Table 6-1. Population Forecasts by Subarea

Subarea	Base Year	2025	Annual Growth Rate	Source
Sunnyslope	3,100[1]	9,100	6.2%	Sunnyslope Subarea Plan (2007)
Foothills	**Analysis based on the Foothills Traffic Study*			
Malaga CCD[4]	3,500[2]	8,300	3.5%	Malaga Vision Plan (2006)
Entiat UGA[5]	1,000[2]	2,000	2.8%	Entiat's Comprehensive Plan (2007)
Chelan UGA[5]	4,000[2]	6,700	2.1%	Chelan's Comprehensive Plan (2006)
Manson UGA[5,6]	3,600[3]	5,500	2.5%	Manson Subarea Plan (2008)
Cashmere/Monitor UGA[5]	3,700[2]	7,400	2.8%	Cashmere's Comprehensive Plan (2008)
Peshastin/Dryden Subarea	1,100[2]	1,600	1.5%	Peshastin Subarea Plan (2008)
Leavenworth UGA[5]	2,400[2]	5,100	3.1%	City Land Use Capacity Analysis (2008)
Plain/Lake Wenatchee			0.5%	Discussions with County Staff

1. Base year is 2007
2. Base year is 2000
3. Base year is 2006
4. CCD = County Census Division
5. UGA – Urban Growth Area
6. Assumed that the Manson UGA would be expanded since the Subarea Plan was not adopted at the time the forecasts were developed.

Commercial and Industrial Activity

Growth in commercial and industrial land uses for Chelan County was estimated through analysis of existing and available building square footage for unincorporated land within each subarea. Anticipated commercial and industrial development is based on zoning designations, vacant parcels, and an estimation of what is likely to be completed within the 20-year planning horizon.

Table 6-2 summarizes the existing and future commercial and industrial development by subarea. The square footage estimates only include unincorporated areas of the County.

Table 6-2. Commercial and Industrial Activity Forecasts by Subarea

Subarea	Base Year (1,000 sqf)	2025 (1,000 sqf)	Annual Growth Rate
Sunnyslope	4,712	7,068	2.3%
Malaga	2,100	3,150	2.3%
Entiat	No significant amount of unincorporated commercially zoned land		
Chelan	1,300	2,210	3.0%
Manson	170	272	2.6%
Cashmere/Monitor	490	880	3.3%
Peshastin/Dryden	792	1,980	5.2%
Leavenworth	No significant amount of unincorporated commercially zoned land		
Plain/Lake Wenatchee	8	12	2.3%

SOURCE: Transpo analysis based on County data

These commercial and industrial developments located within unincorporated zoned land will generate additional traffic on the County roadway system. However, since there are only a few areas in the unincorporated areas where commercial growth can occur, this land use is not the primary emphasis in regards to travel forecasts in the unincorporated areas.

State Highway Traffic Data

WSDOT provided data on expected traffic volume growth rates on State Highways throughout Chelan County. The information relied primarily on WSDOT's Highway Segment Data (HSD) last revised in 2006. The HSD growth rates are based on historical traffic counts over the last 10 to 20 years. For the Leavenworth area, traffic growth rates are based on a specific trend line analysis of

historical traffic volumes. Table 6-3 summarizes annual growth rates on State Highways for each subarea.

Table 6-3. State Highway Traffic Growth by Subarea

Subarea	Annual Growth Rate	Source
Sunnyslope	1.5%	HSD[1] growth rate for US 97/2
Malaga	No state highways	
Entiat	2.2%	HSD growth rate for SR 97A
Chelan	2.2%	HSD growth rate for SR 150 and SR 97A
Manson	2.2%	HSD growth rate for SR 150
Cashmere/Monitor	2.2% - 1.5%	HSD growth rate for US 2 is 2.2% in Cashmere and 1.5% in Monitor
Peshastin/Dryden	2.2%	HSD growth rate for US 2
Leavenworth	1.5%	Trend line analysis for US 2
Plain/Lake Wenatchee	2.7%	HSD growth rate on SR 207

1. Highway Segment Data (WSDOT)

Estimated Annual Growth Rates

The final traffic volume growth rates used for each of the subareas are shown on Table 6-4. The growth rates are a combination of the population growth rates and the commercial/industrial growth rates. The final growth rates reflect that traffic growth rates are primarily driven by population growth rates; however, in areas where a strong commercial and industrial development is anticipated, final growth rates used for the Transportation Element are higher than expected population growth rates.

The final annual growth rates were used to estimate Year 2028 traffic volumes along major County arterials. State highway growth rates were used directly to derive future traffic volumes on state highways.

Table 6-4. Final Annual Growth Rates by Subarea

Subarea	Population Growth Rate	Commercial & Industrial Growth Rate	Estimated Growth Rate
Sunnyslope	6.2%	2.3%	6.2%
Malaga	3.5%	2.3%	3.5%
Entiat	2.8%	N/A	2.8%
Chelan	2.1%	3.0%	2.5%
Manson	2.5%	2.6%	2.5%
Cashmere/Monitor	2.8%	3.3%	3.0%
Peshastin/Dryden	1.5%	5.2%	5.2%*
Leavenworth	3.1%	N/A	3.1%
Plain/Lake Wenatchee	0.5%	2.3%	0.8%

SOURCE: Transpo, 2008
* For Peshastin interchange area only; for the rest of the subarea, the final growth rate is 1.5%.

20-Year (2028) Traffic Forecasts

Annual growth rates were used to estimate Year 2028 daily traffic volumes. On State Highways, annual growth rates used are those shown in Table 6-3. For all County roads, the annual growth rates shown on Table 6-4 were used.

The existing traffic counts were increased using these annual growth rates to derive the 20-year daily traffic forecasts. The resulting future traffic volume forecasts are presented in materials included in Appendix A.

The forecast results indicate that the only County roads with 2028 annual average daily traffic exceeding 10,000 vehicles per day are located in the Sunnyslope area: Easy Street, Penny Road, and Euclid Avenue. The section of Easy Street north of Penny Road is the only location in the County road system with an average annual daily traffic forecast over 20,000 vehicles.

The vast majority of the County roadways have forecast volumes in the range of 1,000 to 6,000 vehicles. These results indicate that most of the County roads will continue to operate well below capacity within the 20-year planning horizon. Therefore, capacity and congestion are not likely to be the main issues to address.

However, traffic volume forecasts also suggest that some areas will likely face traffic operation issues due to increased levels of traffic demand. Those locations include intersections with State Highways which will carry higher traffic volumes, and areas anticipated to accommodate a significant amount of residential and employment growth such as Sunnyslope and Leavenworth.

Chapter 7 – Transportation Priorities

Defining priorities is an important part of the planning process. The analysis of existing and future deficiencies indicates that the County transportation system needs significant improvements to address current and future deficiencies. The costs of the transportation improvement needs will far outstrip the likely available future funding. Because not all identified projects can realistically be funded during the next 20 years, the County establishes priorities for its transportation improvements. The prioritization process helps guide the allocation of resources among the various subareas of the County, and among the various types of transportation improvement projects.

To help guide the development of the County transportation system, priorities were identified based on the general goals and policies identified for the Transportation Element (see Chapter 4) and input from the general public and the stakeholder group. The countywide priorities, along with other criteria such as how much a facility is used and project costs, were used to evaluate each transportation improvement project and group the projects into priority tiers (see Table 7-3). This prioritization process is used to help direct future available funding, including grant monies, toward specific projects and programs reflecting the County's priorities.

Regional Priorities

Regional transportation priorities have been identified in the regional Transportation Plan developed by the WVTC. The County Transportation Element must be consistent with those regional priorities as identified in the regional Transportation Plan (Confluence 2025). The goals that guided the development of the regional priorities included the following:

- Public involvement in decision-making
- Intergovernmental coordination
- Transportation safety
- Ease of travel to, from and within the community
- Make the best use of the existing transportation system
- Balanced travel options
- Environmental stewardship
- Adequate funding

The priorities of the County Transportation Element also must be consistent with the priorities adopted by the state through the Washington Transportation Plan (WTP). The 2007 to 2026 WTP identifies and prioritizes a set of transportation investments to serve the citizens' safety and mobility needs, the state's economic productivity, the communities' livability and the ecosystem's viability. The adopted plan follows a strategic approach to future investment by establishing guiding principles for investments in current and future facilities. The five guiding principles are as follows:

1. Preservation—Preserve and extend prior investments in existing transportation facilities and the services they provide to people and commerce.

2. Safety—Target construction projects, enforcement, and education to save lives, reduce injuries, and protect property.

3. Economic Vitality—Improve freight movement and support economic sectors that rely on the transportation system, such as agriculture, tourism, and manufacturing.

4. Mobility—Facilitate movement of people and goods to contribute to a strong economy and a better quality of life for citizens.

5. Environmental Quality and Health—Bring benefits to the environment and the citizens' health by improving the existing transportation infrastructure.

Countywide Issues

In updating the Transportation Element of the County Comprehensive Plan, a variety of stakeholders provided input regarding the local and regional transportation issues affecting Chelan County. The Transportation Element process also included a review of prior studies, data assembling and analysis, interviews with agency staff and community stakeholders, as well as public meetings. The process revealed that the countywide transportation issues can be summarized into five main themes:

- **Funding for Maintenance and Preservation of the Roadway System**
  There is a general concern that the County and Cities do not have adequate resources to fund their regular maintenance and preservation programs. As a result, roadway conditions will continue to deteriorate and more roadways will reach the point where capital improvements will be required to address the failed roadway.

- **Transportation Improvements to Support Anticipated Growth**
  Many areas within the County have experienced traffic growth due to residential development and increased tourism, and more growth in anticipated in the future. Many roadways are transitioning from primarily agricultural use to general purpose. There is a need to ensure that developments pay for their fair share of the transportation improvement needs they generate.

- **Connectivity and Need for Alternative Routes**
  Several communities within the County can only be reached by one primary roadway, which raises some concerns related to mobility, emergency management and the potential to safely and efficiently accommodate more residential, industrial or tourism development in the future.

- **State Highways through Communities**
  Issues related to safety, speeds, access and community character along the State Highways were a main concern to County residents. In many cases, the state highway effectively acts as the main street through a community. Mobility, access, and safety are critical concerns. At the same time, residents expect these corridors to be the commercial main street and support pedestrian activity. As a result, the local community and WSDOT priorities for the State Highways often conflict.

- **Pedestrian and Bicycle Facilities**
  The need for more and improved pedestrian and bicycle facilities emerged as a priority. Providing adequate facilities for non-motorized travel along State Highways, County roads and other local roads is critical from a safety and quality of life perspective. In addition, non-motorized facilities provide the traveling public with additional travel options besides the automobile. There is a perception for increased economic development potential from improved sidewalks, bike paths and multi-purpose trails.

These five issues were used in developing a list of priorities for Chelan County stakeholders and the general public to further prioritize. The goal was to define the top three priorities from the list of issues identified above. In many cases, the issues overlapped one another in terms of separate and distinct priorities. For example, a priority to address "safety" could be part of the "connectivity and need for alternate routes" or the "state highways through communities" issues

summarized above. Therefore the priority issues were further defined by twelve separate and stand-alone topics as defined below.

Defining Priorities

Transportation improvements address issues that generally fall under three broad categories, as illustrated in Table 7-1. Depending on the context and the specific local needs, some issues may be more relevant or important to address in priority.

Table 7-1. General List of Issues Addressed by Transportation Improvements

Category	Context	Priority Issues
Economic Factors	Some transportation improvements focus on supporting important economic sectors for the County, such as agriculture and tourism. Transportation plays an important role in the process of attracting and maintaining economic activities. The movement of freight and goods is a critical element of the economic vitality for the area. Another important economic factor is the cost of the transportation improvements, and whether or not adequate funding sources are available to meet the current and future needs.	• Supporting economic development plans • Cost of potential improvements • Enhancing movement of freight and goods
Facilities & Services	Many types of transportation improvements are necessary to provide for a balanced system that will work effectively and safely over the 20-year planning horizon. Priorities may be given to rehabilitating existing facilities, or building new facilities; improving existing services or creating new ones. Specific issues generally emerge for certain modes of transportation such as non-motorized transportation or transit. There are also concerns that are more general in nature and relate to different aspects of the transportation system: congestion, safety, and emergency response.	• **Maintaining and upgrading existing roads** • Congestion • **Safety** • Improving regional connections • **Pedestrian and bicycle transportation** • Transit, ridesharing, and other alternatives • Security and emergency response
Land Use & Environmental	These priorities are related to the consistency between land use and transportation policies, and general requirements of the Growth Management Act. Other types of priorities focus on energy and environmental factors.	• Reducing impacts on the environment • Supporting adopted regional and local land use plans

SOURCE: Transpo Group 2008
BOLD: The top three issues identified by Chelan County stakeholders and general public.

The Stakeholder Advisory Group and participants to the open house hosted by Chelan County in June 2008 were asked to note their three top issues for the Chelan County Transportation Element. Three issues emerged a being primarily cited by participants as top priorities to address:

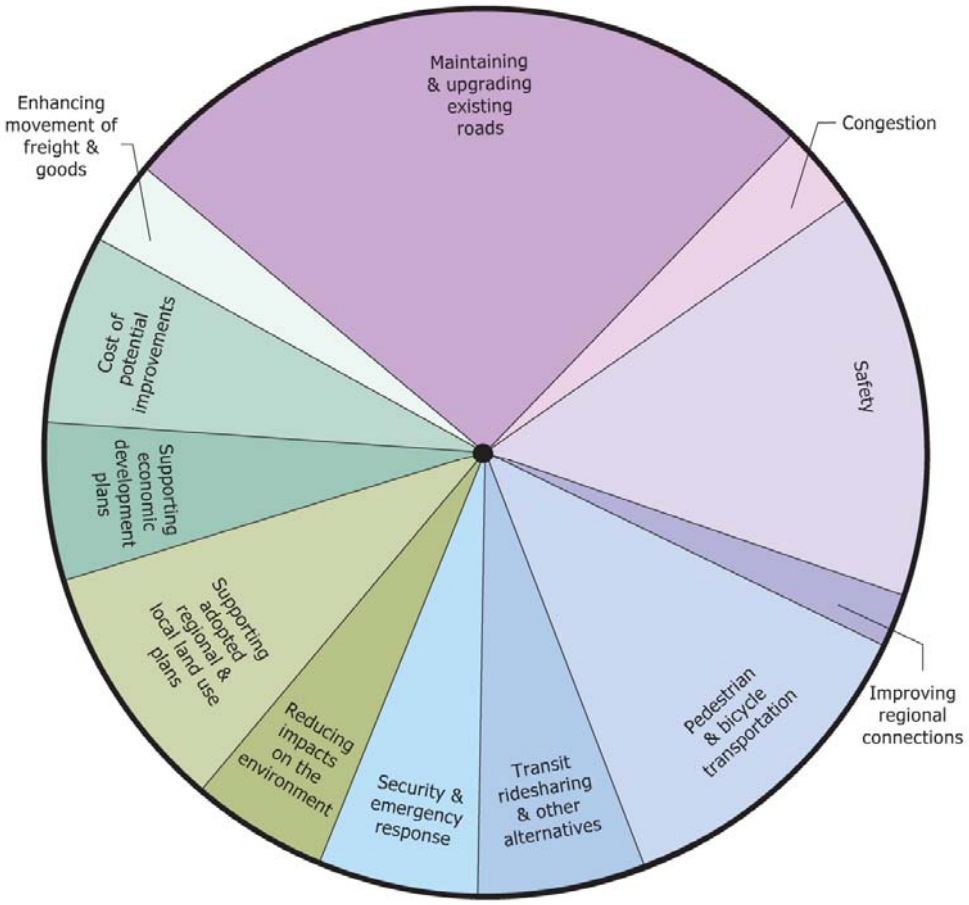
- **Maintaining and Upgrading Existing Roads**
  This priority refers to maintaining, preserving, and extending the utility of the existing transportation system. Preservation is critical to ensuring the usefulness of prior transportation investments and reducing future deficiencies.

- **Safety**
  Safety should be one of the top transportation investment priorities in the County. Improving safety usually involves targeted locations identified by collision history and risk factors.

- **Pedestrian and Bicycle Transportation**
  The plan should emphasize the need to improve safety and mobility for pedestrians and

bicyclists. New or upgraded facilities should provide a network offering real options for walking and biking.

These three top priorities that emerged from the public and agency involvement process are consistent with the general goals and policies identified for the Transportation Element, along with many of the countywide issues defined earlier in the process. There are several goals and policies that identify these issues as being top priorities and provide courses of action the County will pursue to implement improvements that address the priorities. The priorities are also fully consistent with the statewide priorities adopted in the Washington Transportation Plan 2007-2026 (WTP).



*Each priority is weighted by input received from the June 2008 Public Open House and Stakeholder Advisory Group as shown in Table 7-2.

Figure 7-1. Priorities for Chelan County

Table 7-2 provides the approximate percent share for each issue as compared to one another. The likelihood of being chosen is the percent by which the issue was likely to be chosen as part of the top three by an individual. For example, “maintaining and upgrading existing roadways” was chosen by 76 percent of the respondents as a top priority.

Table 7-2. Priorities for Chelan County

Priorities	Likelihood of Being Chosen[1]	Overall Share	Ranking
Economic Factors			
Supporting economic development plans	17%	6%	
Cost of potential improvements	21%	7%	
Enhancing movement of freight and goods	10%	3%	
Facilities & Services			
Maintaining & upgrading existing roads	76%	26%	1
Congestion	10%	3%	
Safety	45%	15%	2
Improving regional connections	7%	2%	
Pedestrian & bicycle transportation	34%	12%	3
Transit, ride-sharing & other alternatives	17%	6%	
Security & emergency response	17%	6%	
Land Use & Environmental			
Reducing impacts on the environment	14%	5%	
Supporting adopted regional and local land use plans	28%	9%	

SOURCE: Input from the June 2008 public open house and stakeholder advisory group.
1. The likelihood of being chosen is the percent by which the issue was likely to be chosen as a top priority by an individual.

Project Prioritization Process

The list of multimodal transportation projects were prioritized into three Tiers (I, II and III). The tier system is used to support the implementation strategy by identifying which projects should be completed first. This approach creates three sets of investment tiers that can be implemented incrementally if and when funding resources become available. A general description of the characteristics of each Tier is provided in Table 7-3.

Table 7-3. Description of Priority Tiers

Tier I	Projects that could be done first, because they are usually lower-cost projects that can provide short term solutions to top priority issues. They primarily address maintenance/preservation, safety, and non-motorized transportation needs. They also typically address existing deficiencies on facilities where the level of demand is relatively high.
Tier II	Projects not likely to be completed using existing capital revenue streams. They generally address County priorities, but are more costly that Tier I projects. Some Tier II projects address an existing issue, while others address projected needs or improve a facility that is critical to many users.
Tier III	Longer-term projects that typically include higher cost solutions. In addition, many Tier III projects are needed primarily to accommodate future new developments. They are likely to be primarily funded by new developments or grant revenues.

SOURCE: Transpo Group 2008

A rating system was developed to categorize each proposed transportation improvement into a tier. The general considerations for assigning priorities and the point system are further highlighted in Appendix B.

The project lists and maps presented in Chapter 8 – Transportation Improvement Projects, identify which Tier each project is included under.

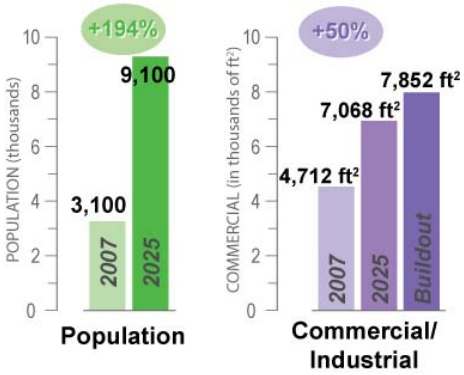
Chapter 8 – Transportation Improvement Projects

This section of the Transportation Element summarizes the identified improvement projects for each of the ten subareas of the County. The subareas are arranged around three larger districts. The Greater Wenatchee district includes the subareas of Sunnyslope, Wenatchee Foothills, and Malaga. The Columbia River district includes the subareas of Entiat, Chelan, and Manson. The Wenatchee River district includes the subareas of Cashmere/Monitor, Peshastin/Dryden, Leavenworth, and Plain/Lake Wenatchee.

Within each subarea, a summary of the land use growth patterns and main transportation issues are presented first, followed by a summary of the recommended transportation improvement projects. The projects are organized by jurisdiction, then by mode. State Highway improvement projects are presented first, followed by County and City roadway improvement projects, then other modes (non-motorized, transit, waterborne, rail, air), as applicable.

Highest priority improvement projects (Tier I), defined as described in Chapter 7, are highlighted for each subarea and for each project type. Project tables and maps are also provided for each subarea covering the full range of multi-modal improvements.

Sunnyslope Subarea



Over the last fifteen years, the subarea has transitioned from a predominantly agricultural zone (apple, pear and cherry orchards) to a residential area with large-lot subdivisions. It was identified as an Urban Growth Area (UGA) for the City of Wenatchee in a 2005 Available Lands Study. A subarea plan was then completed in 2008 in a joint effort by the City and County. The plan assumes a growth in population of approximately 6,000 people over the next 20 years.

Land use scenarios considered in the Subarea Plan ranged from high-density development in existing commercial centers to the status quo of low-density, single-family development throughout the subarea. The Subarea Plan notes that existing development patterns do a poor job accommodating Sunnyslope's share of countywide growth, while the high-density development patterns do a poor job of retaining the existing character of Sunnyslope. The Subarea Plan recommended combining existing patterns and high-density centers as a type of hybrid, and to bring the subarea close to accommodating the forecast growth while retaining the more rural character of today's Sunnyslope across a large portion of the area.

Most of the additional development envisioned in the Subarea Plan would occur in an area informally referred to as a "zone of change" which generally includes Olds Station and that portion of Sunnyslope south of Beacon Road. More people in the subarea will add to a transportation infrastructure that is already frequently overburdened, with signs of congestion and safety issues. Major transportation system improvements are necessary to support the anticipated growth of the subarea, and to support the transition from a rural to urban area.

The development of the Sunnyslope area will require significant improvements to the transportation system in and around the subarea. Strategies focus on improving access to the State Highway system by upgrading the existing intersections and providing for better connectivity across the State Highways. The main roadways within the subarea should be upgraded to support increased level of use as development intensifies. Roadway improvements should be accompanied by completion of bicycle and pedestrian facilities, as well as additional transit service and facilities to provide alternative modes of transportation.

Roadway improvements will be somewhat constrained by the topography of the area. Winter conditions and snowfall in Sunnyslope make road grades an important consideration, especially as traffic increases.

The recommended projects are summarized on Figure 8-1 and Table 8-1.

State Highway Improvements

WSDOT has committed to evaluate potential improvement strategies to reduce congestion and improve safety along the US 2/97 and SR 285/North Wenatchee Avenue corridors. Congestion relief studies for both corridors are part of the 2008-2013 Transportation Improvement Program (TIP) adopted by the State. Potential improvements to be studied further include grade-separation at the US 2 / Easy Street intersection, a new Sunnyslope interchange and the extension of Western Avenue to extent across the Wenatchee River. A safety improvement project was recently completed at the intersection of US 2 and School Street with the elimination of the left-turn movements into and out of School Street.

WSDOT has proposed a new diamond interchange in the Sunnyslope area as a long-term recommendation. This improvement would provide a new grade separated crossing approximately one-quarter mile east of Lower Sunnyslope Road. A new County road would be constructed to connect Lower Sunnyslope Road with Easy Street via the new US 2/97 crossing. With the new interchange, at-grade accesses to US 2/97 at Lower Monitor Road, Lower Sunnyslope Road and School Street would be closed in an effort to improve safety conditions and mobility along the highway corridor.

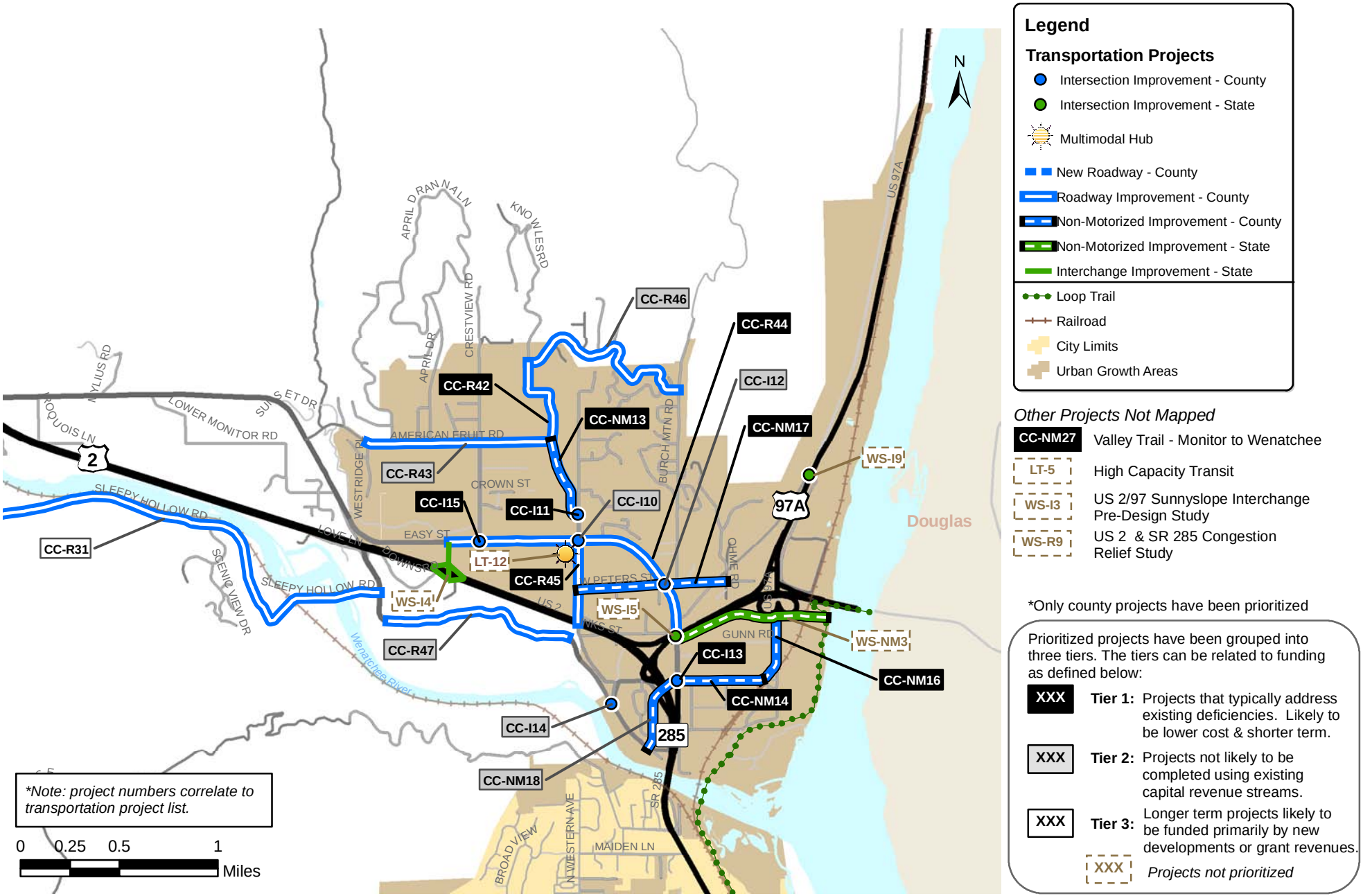
A grade-separation project at the intersection of US 2 and Easy Street would improve operations at this intersection, which is expected to become deficient due to increased traffic volumes (the predicted 2028 level of service without improvements is LOS F). However, the grade-separation would also reduce access in and out of the Sunnyslope subarea and to the State Highway system. This in turn would create the need for an additional access to the subarea from US 2, such as the proposed new interchange to the west of School Street.

The intersection at US 97a / Ohme Garden Road would provide an alternative route to access US 2 once Easy Street is grade-separated. In addition, existing traffic operations analysis summarized in Chapter 5 indicates this intersection is operating at LOS F conditions at each of the minor approaches and is expected to worsen by 2028. WSDOT has plans to eventually install a traffic signal at this intersection to provide improved operations and safety.

County Roadway Improvements

Easy Street provides access to the subarea from the south (Wenatchee). It also provides a vital east-west connection within the subarea. Daily volumes on Easy Street (south of SR 2/97) are expected to grow from about 6,000 to over 20,000 vehicles per day (vpd). The intersections of Easy Street with Penny Road, US 2, Peters Street, School Street, and Crestview Street are all forecast to operate at level of service F in 2028 without improvements. The forecast levels of congestion result in a need for roadway improvements including additional lanes or other capacity improvements to handle the expected increase in traffic. The improvements also should emphasize the need to improve traffic safety and develop pedestrian and bicycle facilities along the corridor.

The section of Easy Street between US 2 and Crestview Road should be upgraded to meet urban street standards. The improvements should include widening the road to 3 or 5 lanes depending on whether a new interchange with US 2 is provided west of School Street. Other improvements address safety, addition of sidewalks and bike lanes, and intersection traffic control at the Peters



Sunnyslope Transportation Improvement Projects

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIG8-1_ImpsSunnyslope.mxd

transpoGROUP

FIGURE

8-1

Table 8-1. Sunnyslope Subarea Transportation Improvement Project List

Project ID	Project Title	Project Description	Cost[1, 2]	Priority Tier[2, 3]
WSDOT				
WS-R9	US 2 & SR 285/N Wenatchee Alternative Corridor - Pre Design	Corridor Study of North Wenatchee Avenue. Currently funded and managed through WVTC with completion targeted in 2010.		
WS-I3	US 2 / 97 Sunnyslope Interchange - Pre Design	Congestion Relief Study	—	—
WS-I4	US 2 Sunnyslope Interchange	Possible new interchange west of School Street.	—	—
WS-I5	US 2 / Easy Street overcrossing	Grade separation at Easy Street. Highway System Plan Tier III solution.	—	—
WS-I23	US 2/97 Short Term Intersection Improvements	Short term intersection improvements (restriping left-turn pockets, adding pavement for right-turn lanes or pockets, adding illumination) as identified in the US 2/97 Corridor Safety Study (June 2002)	—	—
WS-NM4	Sunnyslope Connection to Apple Capital Loop Trail	Provide a connection to the Loop trail south of the US 2 / 97 bridge. Provide a bridge over the BNSF railroad connecting to Euclid Avenue and eventually to Easy Street paralleling the highway. Construct a route on the south side of US 2.	—	—
Chelan County				
Roadway Improvement				
CC-R42	Knowles Road	Widen, grade, drain, install storm water system, add base and top course, and pave with HMA from School Street to Rolling Hills Lane	$2,920	I
CC-R43	American Fruit Road	Reconstruct - Overlay and add sidewalks or pathway	$3,600	II
CC-R44	Easy Street	Upgrade Easy Street to urban standards, road widening, safety improvements, non-motorized facilities between future WSDOT interchange and SR 2/97.	$9,490	I
CC-R45	School Street	Improve pedestrian facilities and provide traffic calming south of Easy Street. Widen shoulders.	$1,660	I
CC-R46	Rolling Hills Road	Widen, add base and top course, and pave from Knowles Road to Burch Mountain Road	$1,830	II
CC-R47	Lower Sunnyslope Road	Widen/construct shoulders east of School Street to west of Sleepy Hollow.	$1,810	II
Intersections				
CC-I10	School Street / Easy Street	Install roundabout or traffic signal, widen intersection, and improve channelization and signage to accommodate expected traffic growth.	$1,010	II
CC-I11	Knowles Road / School Street	Intersection safety improvements.	$240	I
CC-I12	Easy Street / Peters Street	Install roundabout or traffic signal, widen intersection, and improve channelization and signage to accommodate expected traffic growth.	$1,010	II
CC-I13	Easy Street / Penny Road	Install additional turn lanes to accommodate expected traffic growth.	$570	I
CC-I14	Lower Sunnyslope / School St / Penny St	Traffic control, signage, and intersection geometry improvements	$280	II
CC-I15	Easy Street / Crestview Road	Install additional turn lanes to accommodate expected traffic growth.	$240	I
Non-motorized Improvements				
CC-NM13	Knowles Road	Construct sidewalk on Knowles Road from American Fruit Road to Lombard.	$530	I

CC-NM14	Penny Road	Construct sidewalk on Penny Road from Easy Street to Euclid Avenue.	$510	I
CC-NM15	Peters Street	Construct sidewalk on Peters Street from School Street to Easy Street. Completed in 2008.	$1,050	I
CC-NM16	Euclid Avenue	Construct sidewalk on Euclid Avenue from Penny Road to US 97A.	$860	I
CC-NM17	Peters Street	Construct sidewalk on Peters Street from Easy Street to Ohme Garden Road	$620	I
CC-NM18	Cordell Avenue	Construct sidewalk on Cordell Avenue from Lower Sunnyslope Road to Easy Street.	$480	II
Trails				
CC-NM27	Valley Trail - Monitor to Wenatchee	Identify ROW and construct trail between Monitor and Wenatchee. Could include use of irrigation canal.	$2,280	I
LINK TRANSIT				
LT-12	Intensify transit service in Central Sunnyslope	Multimodal hub near intersection of School Street / Easy Street	—	—

1. Cost range in $1,000s of dollars (2008 $).
2. No cost or priorities developed for other agency projects.
3. See Chapter 7, Table 7-3 for definitions.

Street, School Street and Crestview Road intersections. At the intersections of Easy Street with School Street and Peters Street, traffic signals or roundabouts should be considered. South of US 2, the intersection of Easy Street and Penny Road will require additional turn lanes to reduce delays.

In addition to Easy Street and the US 2 intersections, several locations within the subarea have been identified for safety improvements. These locations include the section of School Street between US 2 and Easy Street, and the intersection of School Street and Knowles Road. Appropriate traffic calming techniques should be implemented along School Street south of Easy Street to reduce speeding near Sunnyslope Elementary School and improve the overall pedestrian environment.

Other roads should be improved to better support the growth anticipated in the subarea. American Fruit Road and Rolling Hills Lane are examples of existing roadways that need to be upgraded to urban standards in support of the development in the UGA. This includes the construction of sidewalks or pathways.

Along Lower Sunnyslope Road, needed improvements include shoulder widening between Sleepy Hollow Road and School Street, and intersection improvements at the intersection with School Street.

Based on the project prioritization process established for the Transportation Element (described in Chapter 7), the following roadway improvement projects within the Sunnyslope subarea are among the highest priority (Tier I projects):

- Upgrade and widen Easy Street to urban standards, including sidewalks and bicycle lanes
- Provide traffic calming and upgrade School Street to urban standards
- Upgrade Knowles Road to urban standards (planned for construction in 2009)
- Install new traffic control or turn lanes at School Street / Knowles Road, Easy Street / Penny Road and Easy Street / Crestview Road intersections

Non-motorized Improvements

Regional trails in the Sunnyslope area include new multi-use path facilities near or across the State Highways. One project is a connection between the Loop Trail and Easy Street on a new

trail just south of US 2. This would include a bridge over the BNSF railroad connecting to Euclid Avenue. The proposed Valley Trail between Monitor and Wenatchee would run through the Sunnyslope area to the west. A grade-separated crossing could be combined with eventual construction of the School Street interchange. The trail is expected to closely follow the irrigation canal that extends towards Monitor.

The increase in growth will result in the central Sunnyslope and Olds Station areas having the potential to become high pedestrian and bicycle activity zones. Street treatment along Easy Street, the design of the Easy Street/SR 2/97 intersection, and the connection between Sunnyslope and the Loop Trail will play critical roles in the success of this concept.

New or improved sidewalks are being proposed on a number of streets within Sunnyslope including Easy Street, School Street, Cordell Avenue, Penny Road, Euclid Avenue, Peters Road and Knowles Road. Some of these new sidewalks would be part of the roadway improvement projects, while others would be stand-alone projects.

Based on the project prioritization process established for the Transportation Element (described in Chapter 7), the following non-motorized improvement projects within the Sunnyslope area are among the highest priority (Tier I projects):

- Sidewalks on Knowles Road, Penny Road, Euclid Avenue and Peters Road
- Valley Trail to connect Monitor and Wenatchee

Transit Improvements

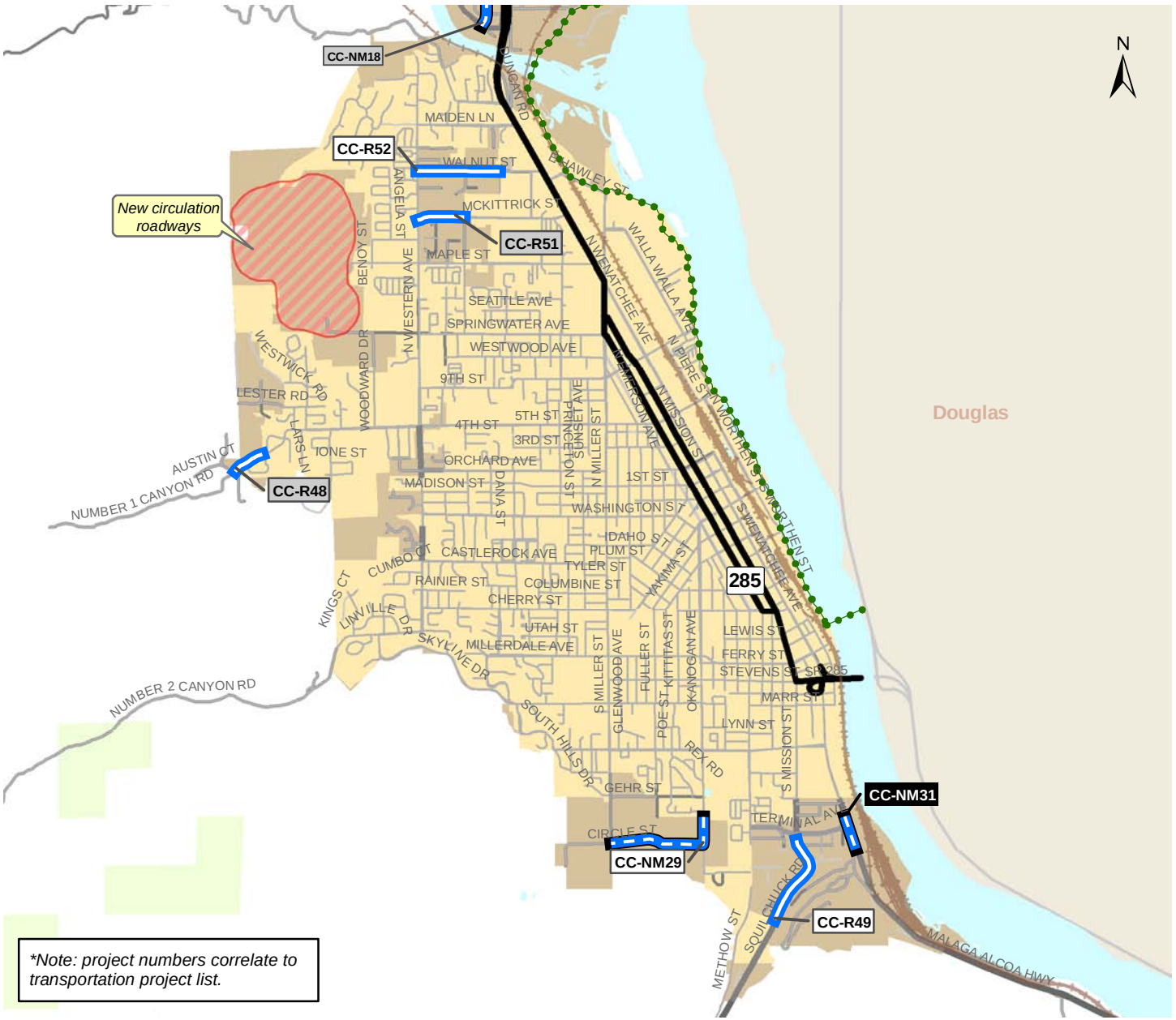
The recently completed park-and-ride lot at Olds Station, with a capacity of about 200 parking spaces, provides an opportunity to promote transit use by the Sunnyslope community for trips to downtown Wenatchee and other regional destinations. As development intensifies in central Sunnyslope and Olds Station, Chelan County will continue to work with LINK Transit to reassess transit service in the subarea, and consider increasing frequency of service and direct connections

Transit service to and from Sunnyslope will need to be enhanced to make it a more viable alternative to driving alone for the Sunnyslope residents. Connections to downtown Wenatchee and other regional destinations should be enhanced as development intensifies in central Sunnyslope and Olds Station. Strategies to be explored by LINK Transit include increased frequency and improved level of service. The creation of a multimodal hub in central Sunnyslope near the intersection of School Street and Easy Street has been proposed as a focal point to help encourage transit by Sunnyslope residents. LINK Transit is also interested in developing high capacity transit concepts in the greater Wenatchee area. Olds Station or central Sunnyslope would be good station locations to attract Sunnyslope riders.

Wenatchee Foothills

The County Transportation Element has identified the need for transportation improvements on the County roadway system located within unincorporated areas near Wenatchee and within the UGA outside of the Sunnyslope subarea. The Confluence 2025 Regional Transportation Plan adopted by the WVTC Executive Council was used to reference specific projects to be included in the County Transportation Element. In addition, the City of Wenatchee recently conducted a study identifying the need for additional transportation improvements in the Wenatchee Foothills area (*Foothills Development Potential Traffic Analysis; City of Wenatchee; Draft report – October 2008*). These two documents identify the need for improvements on specific corridors serving motor vehicles, pedestrians and bicycles travelling to and from the surrounding Foothills area.

The proposed transportation improvements projects are shown on Figure 8-2 and listed in Table 8.2.



*Note: project numbers correlate to transportation project list.

Legend

Transportation Projects

- Roadway Improvement - County
- Non-Motorized Improvement - County
- Loop Trail
- Railroad
- City Limits
- Urban Growth Areas

Other Projects Not Mapped

CC-NM24	Wenatchee Foothills Trail
CC-NM27	Valley Trail - Monitor to Wenatchee
LT-5	High Capacity Transit
WS-R9	US 2 & SR 285 Congestion Relief Study

*Only county projects have been prioritized

Prioritized projects have been grouped into three tiers. The tiers can be related to funding as defined below:

XXX	**Tier 1:**	Projects that typically address existing deficiencies. Likely to be lower cost & shorter term.
XXX	**Tier 2:**	Projects not likely to be completed using existing capital revenue streams.
XXX	**Tier 3:**	Longer term projects likely to be funded primarily by new developments or grant revenues.
XXX		*Projects not prioritized*

0 0.5 1 2 Miles

Wenatchee Foothills Transportation Improvement Projects

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIG8-2_ImpsFoothills.mxd

transpoGROUP

FIGURE **8-2**

Table 8-2. Wenatchee Foothills Subarea Transportation Improvement Project List

Project ID	Project Title	Project Description	Cost[1, 2]	Priority Tier[2, 3]
WSDOT				
WS-R9	US 2 & SR 285/N Wenatchee Alternative Corridor - Pre Design	Corridor Study of North Wenatchee Avenue. Currently funded and managed through WVTC with completion targeted in 2010.	—	—
Chelan County				
Roadway Improvement				
CC-R48	Number One Canyon Road	Upgrade to urban standards, widen and add sidewalks within the UGA.	$940	II
CC-R49	Squilchuck Road	Upgrade to urban standards, widen and add sidewalks within the UGA.	$3,360	III
CC-R51	McKittrick Street	Reconstruct and upgrade to urban standards between Western Avenue and Pershing Street; new storm, sewer, sidewalks and illumination.	$930	II
CC-R52	Walnut Street	Upgrade to urban standards, widen and add sidewalks between Western Avenue and Rogers Drive.	$3,900	III
Non-motorized Improvements				
CC-NM29	Okanogan Avenue / Circle Street	Construct sidewalk on Okanogan Avenue between Circle Street and City limit, and Circle Street between Miller Street and Okanogan Avenue.	$1,560	III
CC-NM31	S. Wenatchee Avenue	Construct sidewalk on S. Wenatchee Avenue between Boodry Street and City limit	$870	I
Trails				
CC-NM24	Wenatchee Foothills Trail	This particular trail is well through the planning stages and is prepared to receive funding for acquisition and development.	N/A	I
CC-NM27	Valley Trail - Monitor to Wenatchee	Identify ROW and construct trail between Monitor and Wenatchee. Could include use of irrigation canal.	$2,280	I
LINK TRANSIT				
LT-5	High Capacity Transit	Investigate and develop high capacity transit concepts for the urbanized core of the greater Wenatchee area	—	—

1. Cost range in $1,000s of dollars (2008 $).
2. No cost or priorities developed for other agency projects.
3. See Chapter 7, Table 7-3 for definitions.

County Roadway Improvements

Roadway improvements include widening and upgrading a number of roads and streets to urban standards. Specific roadways that have been identified include sections of Number One Canyon Road, Squilchuck Road, McKittrick Street and Walnut Street. Roadway improvements would also involve the construction of sidewalks. New circulation roadways are needed in the northern area of the subarea as development occurs. The new roadways will allow for improved access and circulation in the area. These improvements are consistent with those identified in the City of Wenatchee Comprehensive Plan.

Non-motorized Improvements

Regional trails in the area include the Foothills Trail which is a collection of several off-road hiking and biking trails along the western border of the subarea. The existing trails, along with new connections, are needed to preserve a comprehensive system of trails and create a formal, regulated community trail system. The City of Wenatchee prepared a Foothills Trails Plan in 2008

to design. Implement, and manage a public non-motorized trail network in Wenatchee's western foothills.

The proposed Valley Trail between Monitor and Wenatchee would begin at the north end of the Foothills subarea and cross the Wenatchee River towards Sunnyslope and Monitor. The trail is expected to closely follow the irrigation canal that extends towards Monitor.

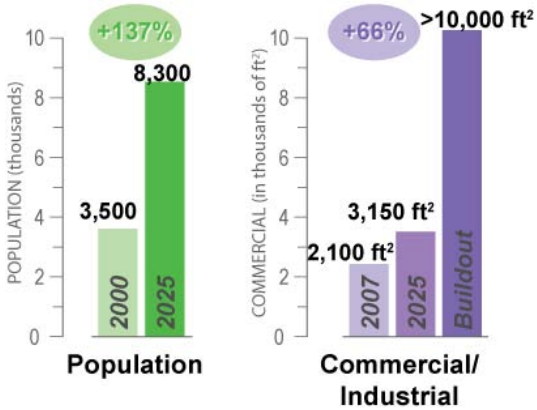
The Transportation Element also includes a number of projects focusing on improving or creating sidewalks. The specific locations that have been identified include sections of Okanogan Avenue, Circle Street, and South Wenatchee Avenue.

Based on the project prioritization process established for the County Transportation Element, two non-motorized projects within the Wenatchee UGA area are among the highest priority (Tier I projects):

- Sidewalks on South Wenatchee Avenue between Boodry Street and City limits
- Sidewalks on Western Avenue between the two City limits

Malaga Subarea

The Malaga area has been experiencing one of the highest growth rates in the County, and the trend is expected to continue in the future. The population within the County Census Division (including the Stemilt and Squilchuck areas) is expected to grow from about 3,500 persons in 2000 to more than 8,000 in 2025. This significant residential growth will put considerable pressure on the existing infrastructure, and will require the development of new roadways in addition to some improvements on the existing facilities.

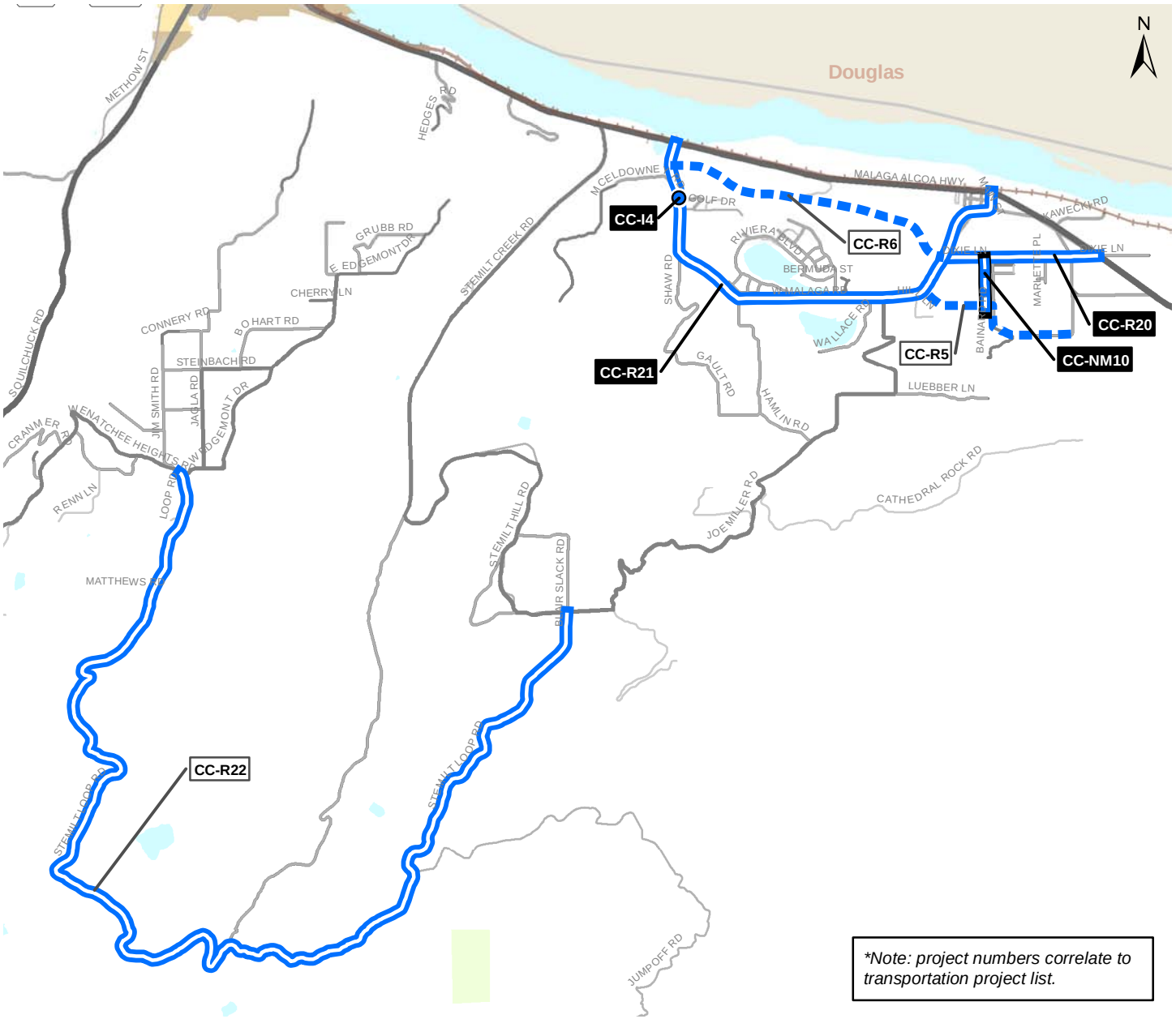


Chelan County established LAMIRD (Limited Areas of More Intensive Rural Development) designation for the Malaga subarea, and has adopted consistent land use designations. There is a significant amount of land in the subarea zoned for industrial development. This land is along the Columbia River to the north and south of the existing Alcoa Plant. It is expected that industrial development would continue to occur in the future, but at a rate much slower than the residential growth.

A number of existing roadways do not meet adopted design standards, especially related to pavement widths and lack of adequate shoulders. As the area develops and traffic increases, it will become important to upgrade the roadway infrastructure. Traffic volumes have been increasing with the construction of new residential developments. The cumulative impact of these developments results in increased traffic throughout the community.

Traffic volumes are expected to continue to increase due to the additional growth. For instance, it is anticipated that the daily traffic volume on W. Malaga Road will grow from about 1,000 to 2,000 vehicles per day (vpd). Dixie Lane is another roadway expected to experience high traffic growth. Needed improvements also include non-motorized facilities to encourage and facilitate the use of walking and biking throughout the area.

Based on existing deficiencies and anticipated growth, transportation improvement projects have been identified for the Malaga subarea. The projects are summarized on Figure 8-3 and listed in Table 8-3. They include creation of new roadways, upgrades of existing roadways and development of pedestrian facilities.



Legend

Transportation Projects

- Intersection Improvement - County
- New Roadway - County
- Roadway Improvement - County
- Non-Motorized Improvement - County
- Railroad
- City Limits
- Urban Growth Areas
- Chelan County
- Other Counties

*Only county projects have been prioritized

Prioritized projects have been grouped into three tiers. The tiers can be related to funding as defined below:

- XXX **Tier 1:** Projects that typically address existing deficiencies. Likely to be lower cost & shorter term.
- XXX **Tier 2:** Projects not likely to be completed using existing capital revenue streams.
- XXX **Tier 3:** Longer term projects likely to be funded primarily by new developments or grant revenues.
- XXX *Projects not prioritized*

**Note: project numbers correlate to transportation project list.*

0 0.5 1 2 Miles

Malaga Transportation Improvement Projects

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIG8-3_ImpsMalaga.mxd

transpoGROUP

FIGURE **8-3**

Table 8-3. Malaga Subarea Transportation Improvement Project List

Project ID	Project Title	Project Description	Cost[1, 2]	Priority Tier[2, 3]
Chelan County				
New Roadway				
CC-R5	Bainard Road/Searles Road connection (Saturday Avenue extension)	New connection between W. Malaga Rd and Searles Rd / Saturday Ave to provide for improved circulation and access to the area south of Dixie Lane	$3,250	III
CC-R6	Malaga new east-west connection	New east-west connection just south of Malaga-Alcoa Hwy between the western and eastern ends of West Malaga Road.	$6,480	III
Roadway Improvement				
CC-R19	Mission Ridge Road	Construct retaining wall as part of FHWA Western lands project which includes 4.3 miles of roadway reconstruction and upgrades. Completed in 2008.	$30[4]	I
CC-R20	Dixie Lane	Road upgrades, shoulder widening, sidewalks.	$2,440	I
CC-R21	West Malaga Road	Improved shoulders and new turn lanes.	$2,740	I
CC-R22	Stemilt Loop Road	Spot improvements along the corridor to construct/widen shoulders, improve vertical/horizontal curves, add signage, and reconstruct sections of roadway.	$6,720	III
Intersections				
CC-I4	W. Malaga Rd / McEldowney Rd	Sight distance and intersection geometry improvements	$190	I
Non-motorized Improvements				
CC-NM10	Bainard Road	Provide enhanced pedestrian facilities from Dixie Lane to Saturday Avenue.	$420	I

4. Cost range in $1,000s of dollars (2008 $).
5. No cost or priorities developed for other agency projects.
6. See Chapter 7, Table 7-3 for definitions.
7. Federally funded. Chelan County cost share.

County Roadway Improvements

Two new east-west roadways have been identified as needed to support the anticipated growth in the area, and provide alternatives to existing roadways. A new connection is proposed just south of the Malaga Alcoa Highway between the western and eastern ends of W. Malaga Road. This would shift some traffic away from the highway and W. Malaga Road. Another proposed new connection would provide a link between W. Malaga Road and Searles Road / Saturday Avenue. This new roadway would improve circulation and access to the area south of Dixie Lane.

Roadway upgrades are recommended on Dixie Lane and on W. Malaga Road. The Dixie Lane project includes widening of shoulders and creation of sidewalks. On W. Malaga Road, the project includes shoulder widening and creation of new turn lanes at some intersections.

Other needed intersection improvements include the intersection of W. Malaga Road and McEldowney Road which should be enhanced to improve sight distance, with possible addition of turning lanes.

Another roadway project identified as needed in the area is the improvement of Stemilt Loop Road. The project includes spot improvements for widening the shoulders and improving vertical and horizontal curves.

Based on the project prioritization process established for the Transportation Element and described in Chapter 7, the following projects within the Malaga area are among the highest priority (Tier I projects):

- Dixie Lane roadway improvements
- W. Malaga roadway improvements and turn lanes
- Intersection improvements at W. Malaga Road / McEldowney Road

Non-motorized Improvements

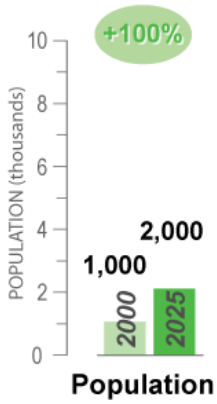
Residential developments south of Dixie Lane will require enhanced pedestrian facilities. A project has been identified on Bainard Road between Dixie Lane and Saturday Avenue. New subdivisions in the area will result in additional traffic on the local roadways. This corridor serves as a primary walk route to a school bus stop along Dixie Lane. The creation of pedestrian facilities on Bainard Road is among the highest priority (Tier I projects). It is expected that new development would help contribute funding for completing non-motorized improvements in the subarea.

Entiat Subarea

The Entiat subarea is projected to grow by nearly 1,000 people between 2000 and 2025. Most of the population growth in the area is expected to occur within City limits. The subarea is not constrained on the availability of land to meet projected needs. However, unincorporated areas around Entiat are expected to experience growth pressures on lands that are available for development. The area must also contend with the pressure from out-of-area residents who are increasingly looking to the community for recreational and retirement property or to use the existing public parks or private rental facilities for vacations.

Highway 97A is the main street through Entiat and currently serves more than 5,000 daily vehicles. Another important roadway is Entiat River Road which serves the Entiat River valley up to Ardenvoir and beyond.

Most of the transportation issues identified in Entiat are along Highway 97A, and have to do with safety concerns. Highway 97A is a vital asset to the economic vitality of the City. It provides access for Entiat residents to other communities, primarily along the Columbia River and the US 2 corridor. School and transit buses as well as emergency vehicles depend on Highway 97A.



No significant amount of land within the unincorporated County is zoned for commercial/ Industrial uses.

Commercial/ Industrial

Most of the existing and future development is located along the Highway 97A corridor, on both sides of the highway. The City's residential population has already exceeded OFM 2025 projections and additional residential, commercial and recreational development is anticipated.

Based on existing deficiencies and anticipated growth, transportation improvement projects have been identified for the Entiat subarea. They are shown on Figure 8-4 and listed in Table 8-4.

State Highway Improvements

The City is currently completing a corridor study for US 97A to identify the highest priority improvement projects. The projects will likely address pedestrian and bicycle facilities, access management, intersection treatments, gateway improvements, and improved access to the waterfront. A specific project in the Transportation Element identifies safety improvements at the intersection of Highway 97A and Entiat River Road that could include traffic control, channelization, or illumination enhancements.

County Roadway Improvements

The identified roadway improvement project focuses on Entiat River Road. It involves widening the shoulder along Entiat River Road west of the City limits.

Non-motorized Improvements

New regional trails have been proposed using the Chelan PUD pipeline right-of-way and along the waterfront as part of the City's ongoing Waterfront Master Plan. Pedestrian and bicycle facilities are very limited and should be expanded. In particular, Highway 97A needs improved sidewalks and pedestrian crossings. The railroad tracks are also perceived as a barrier to pedestrians and bicyclists.

Transit Improvements

There is the desire to develop the public transportation system by increasing the frequency of service on Route 21 (Wentachee/Chelan-Manson) and facilitating the use of the park-and-ride facility in Entiat. The existing capacity of the park-and-ride lot (about 20 stalls) may be inadequate to serve higher demand in the future.

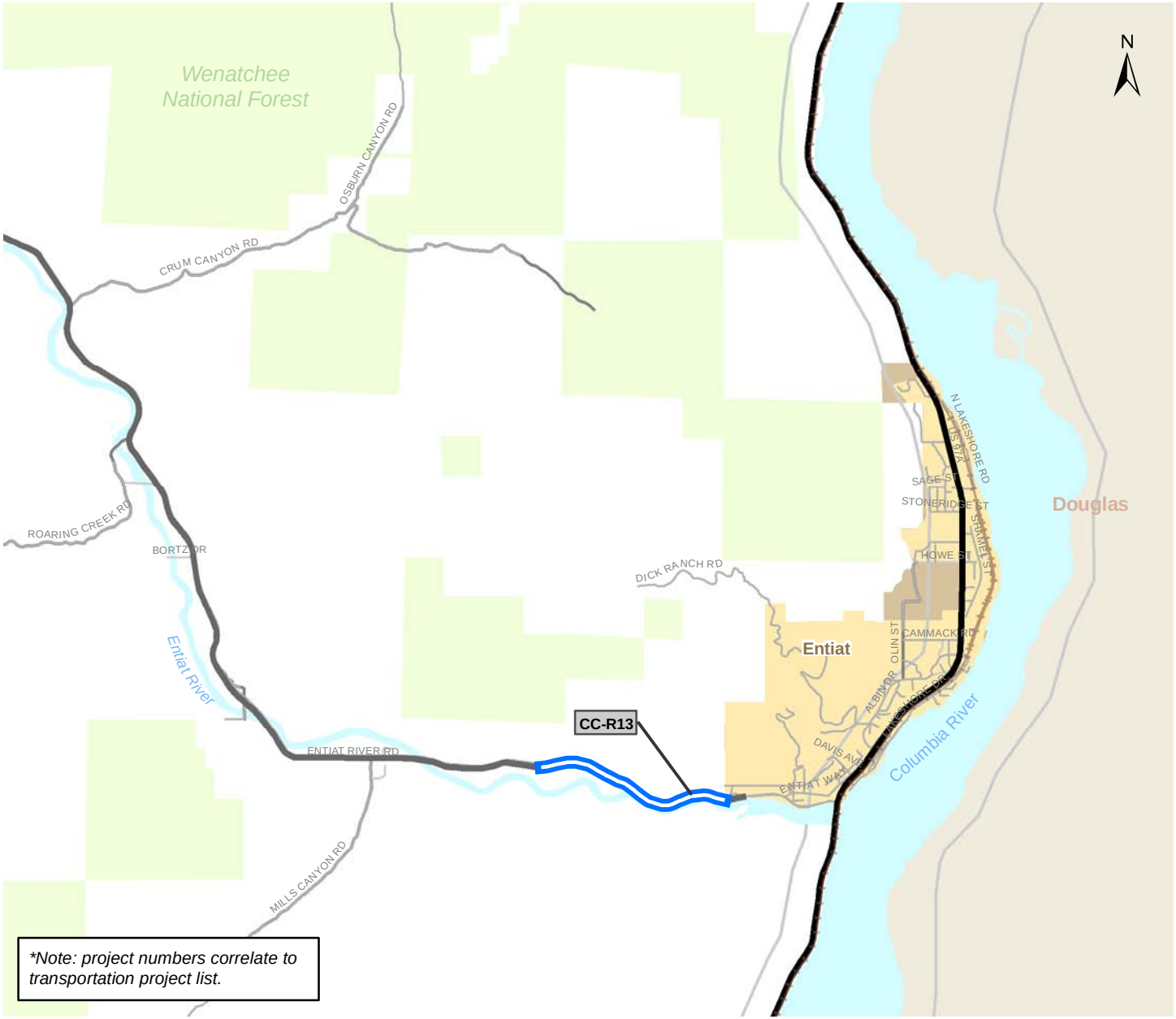
Waterborne Transportation Improvements

The community has identified the possible need to create ferry service across the Columbia River as a way to facilitate emergency management, and develop recreational and tourism opportunities. However there are serious funding concerns with such a concept because such a service is very expensive from a maintenance and operations perspective. Any such concept would likely be implemented by a private operator.

Table 8-4. Entiat Subarea Transportation Improvement Project List

Project ID	Project Title	Project Description	Cost[1, 2]	Priority Tier[2, 3]
Chelan County				
Roadway Improvement				
CC-R13	Entiat River Road	Widen/improve shoulders	$1,030	II
Waterborne				
CC-W2	Ferry service across the Columbia River in Entiat	Ferry service - For emergency management, recreation and tourism development. *Not likely feasible from a long-term maintenance and operations perspective.*	—	—
LINK TRANSIT				
LT-2	Ardenvoir to Chelan	Provide service	—	—
LT-11	Entiat Bus Stops	Locate and construct bus stops along Entiat River Road.	—	—

1. Cost range in $1,000s of dollars (2008 $).
2. No cost or priorities developed for other agency projects.
3. See Chapter 7, Table 7-3 for definitions.



Legend

Transportation Improvements

- Roadway Improvement - County
- Airport
- Railroad
- City Limits
- Urban Growth Areas
- Chelan County
- Other Counties

Other Projects Not Mapped

- CC-W2 Entiat Ferry Service
- LT-2 Transit Service-Ardenvoir to Chelan
- LT-11 Bus Stops along Entiat River Road

*Only county projects have been prioritized

Prioritized projects have been grouped into three tiers. The tiers can be related to funding as defined below:

- XXX **Tier 1:** Projects that typically address existing deficiencies. Likely to be lower cost & shorter term.
- XXX **Tier 2:** Projects not likely to be completed using existing capital revenue streams.
- XXX **Tier 3:** Longer term projects likely to be funded primarily by new developments or grant revenues.
- XXX *Projects not prioritized*

0 0.5 1 2 Miles

**Note: project numbers correlate to transportation project list.*

Entiat Transportation Improvement Projects

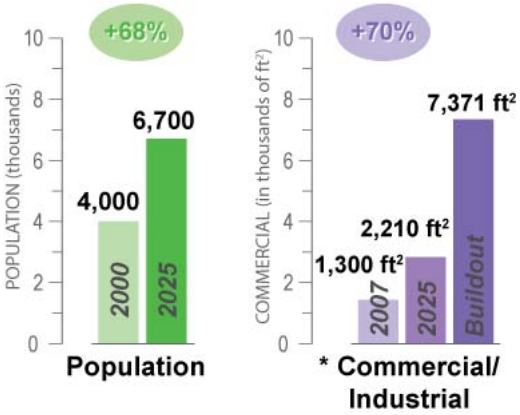
Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIG8-4_ImpsEntiat.mxd

transpoGROUP

FIGURE **8-4**

Chelan Subarea



Significant growth is anticipated to occur in the City of Chelan and the surrounding areas over the next 20 years. The Chelan Census District includes the City of Chelan and the surrounding rural area. The City of Chelan and Chelan County agreed upon an urban/rural CCD population with 70 percent of the 2025 CCD population projection allocated to the City UGA. This allocation would result in approximately 6,700 people within the UGA. The population growth is expected to be spread between incorporated and unincorporated areas.

In addition to full time residents, the planning area is made up of seasonal residents that consist of agricultural workers, owners of weekend or summer homes and the lifestyle patterns of retired persons. Although there are no specific numbers on the populations of these groups, there is information on the number of seasonal housing units. In the City of Chelan, 12.6 percent of the total housing units are classified as seasonal.

Much of the growth is the result of increased tourism and the numerous seasonal and recreational opportunities that exist around Lake Chelan. Lake Chelan and the many amenities offered by the community attract thousands of visitors to the area through the summer months. This brings economic benefits to the community, but also puts pressure on a transportation system not properly equipped to handle large increases of vehicular traffic, bicyclists and pedestrians. Due to the geographical constraints of the lake, slopes, and location of development, opportunities to provide new roadway or multi-modal connections are becoming limited, so efforts must be made to enhance the existing transportation infrastructure, while at the same time, evaluating possible future connections.

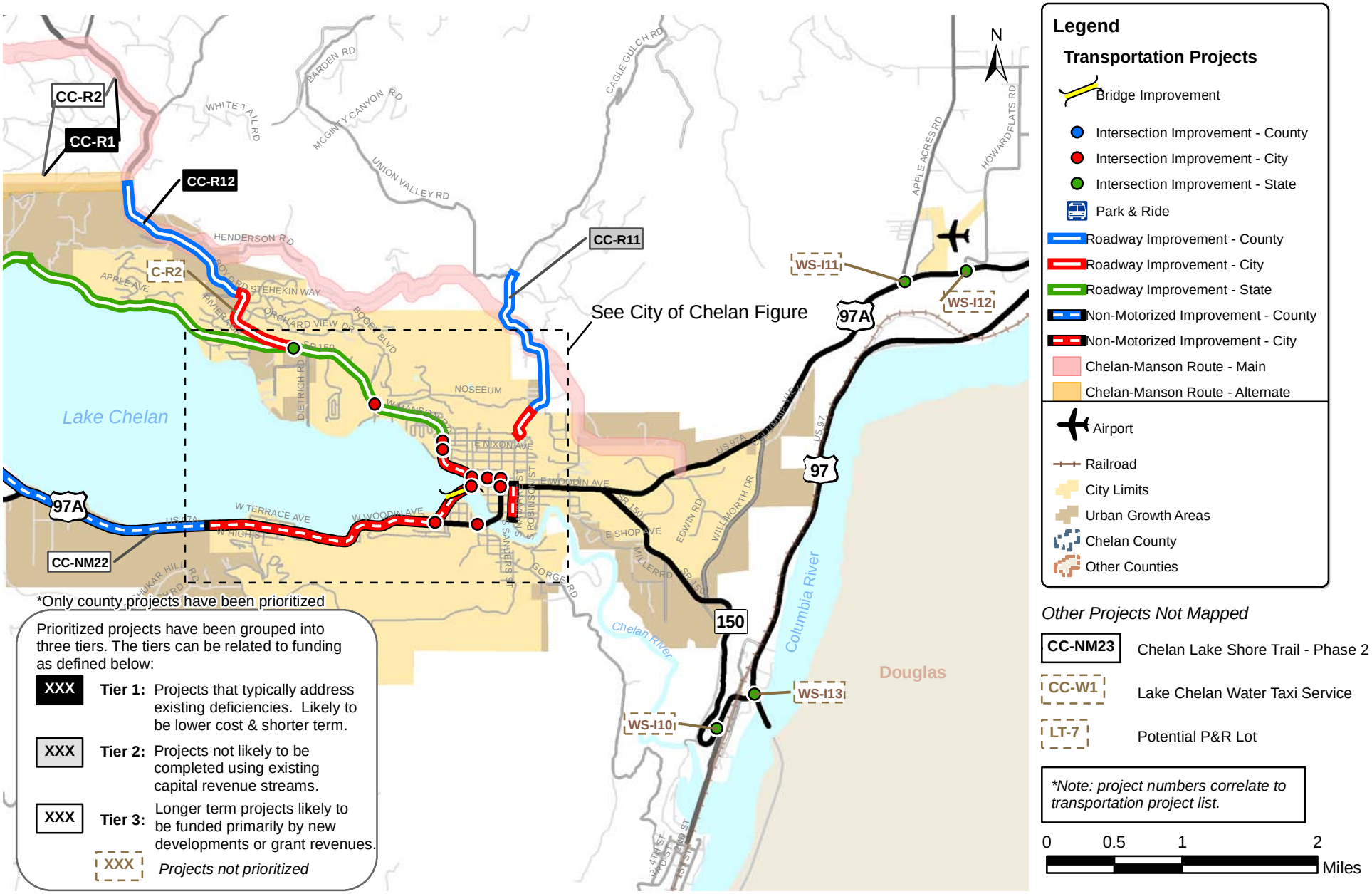
Several areas within the City and UGA are expected to grow in coming years, and will impact the transportation system. Residential development is anticipated in the vicinity of the Golf Course Drive, Boyd Road and Union Valley Road. Residential areas north of downtown could also see some redevelopment. Large Planned Developments are proposed in the east and southern portions of the UGA. These areas will likely combine residential development with commercial and industrial uses.

Based on existing deficiencies and anticipated growth, the following transportation improvement projects have been identified for the Chelan subarea. They are shown on Figure 8-5 (Chelan Subarea), Figure 8-6 (City of Chelan) and Table 8-5.

State Highway Improvements

A number of transportation issues are along the State Highways (SR 150 and 97A) within Chelan. Traffic congestion, poor alignment of some intersections, lack of turn lanes, unsafe conditions for bicycles and pedestrians are among the problems facing the community. SR 150 through Chelan provides the only access to the Manson subarea. Continued residential and tourism development in Manson is having an impact on Chelan due to the need to travel through the City to access the regional connections.

The idea of a possible alternate route between Chelan and Manson (parallel to SR 150 further north) has been suggested. It is recommended to evaluate the feasibility and identify possible corridor alignments for an alternate route between Manson and Chelan. This would reduce the traffic pressure on SR 150. Without the alternate route, average daily volumes on SR 150 are expected to grow from 11,500 vehicles to almost 19,000 vehicles. During the summer season,



Chelan Subarea Transportation Improvement Projects

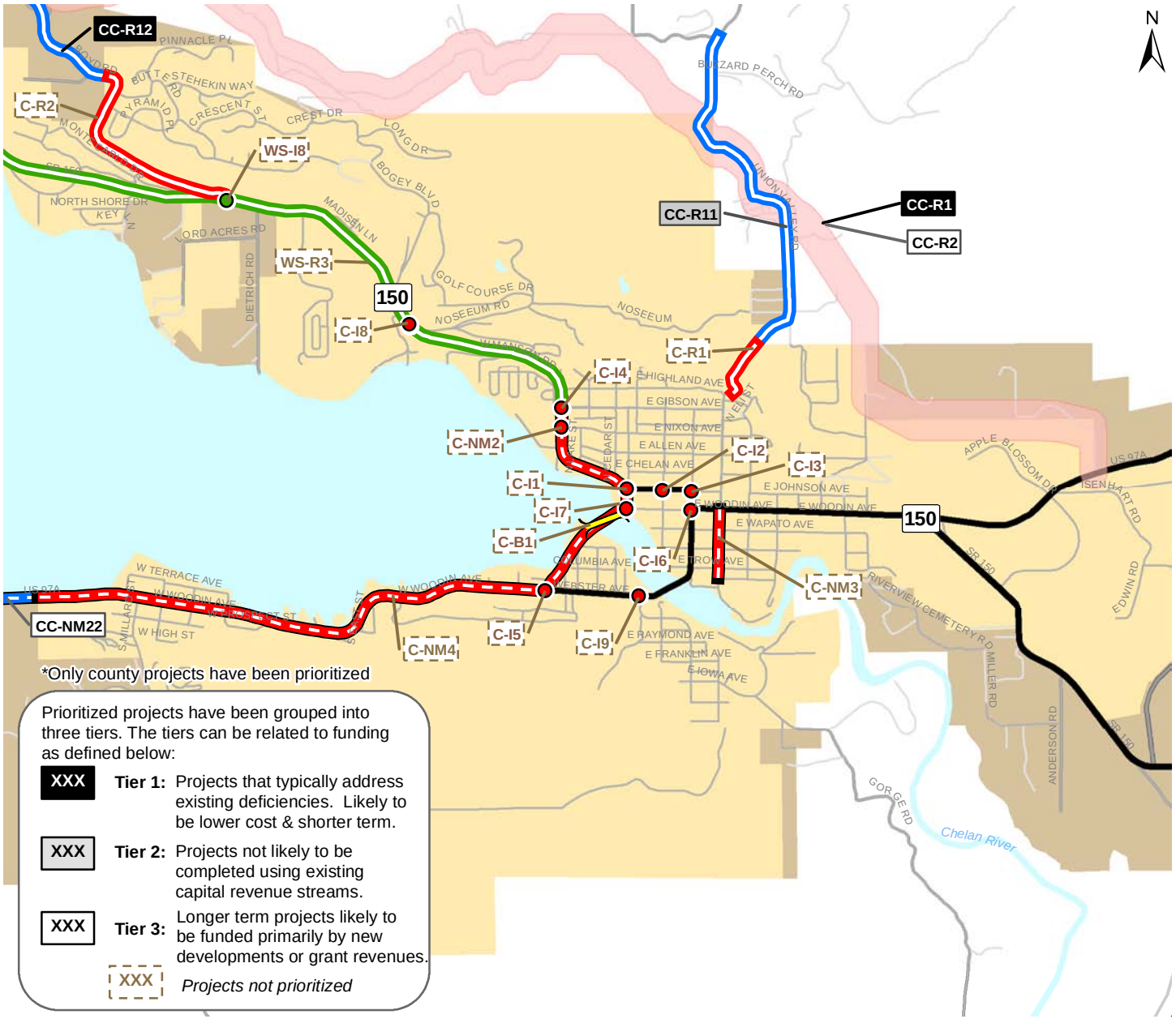
Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIG8-5_ImpsChelan.mxd

transpoGROUP

FIGURE

8-5



Prioritized projects have been grouped into three tiers. The tiers can be related to funding as defined below:

- **XXX** — **Tier 1:** Projects that typically address existing deficiencies. Likely to be lower cost & shorter term.
- **XXX** — **Tier 2:** Projects not likely to be completed using existing capital revenue streams.
- **XXX** — **Tier 3:** Longer term projects likely to be funded primarily by new developments or grant revenues.
- **XXX** — *Projects not prioritized*

Legend

Transportation Projects

- Bridge Improvement
- Intersection Improvement - County
- Intersection Improvement - City
- Intersection Improvement - State
- Roadway Improvement - County
- Roadway Improvement - City
- Roadway Improvement - State
- Non-Motorized Improvement - County
- Non-Motorized Improvement - City
- Chelan-Manson Route - Main
- City Limits
- Urban Growth Areas
- Railroad
- Chelan County
- Other Counties

Other Projects Not Mapped

- **CC-NM23** — Chelan Lake Shore Trail - Phase 2
- **CC-W1** — Lake Chelan Water Taxi Service
- **LT-7** — Potential P&R Lot

**Note: project numbers correlate to transportation project list.*

0 0.25 0.5 1 Miles

City of Chelan Transportation Improvement Projects

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIG8-6_ImpsChelan_City.mxd

transpoGROUP

FIGURE **8-6**

Table 8-5. Chelan Subarea Transportation Improvement Project List

Project ID	Project Title	Project Description	Cost[1, 2]	Priority Tier[2, 3]
WSDOT				
WS-R3	SR 150 Roadway Widening	Widen SR 150 for left turn lanes or two-way left turn lanes where needed and feasible throughout the corridor	—	—
WS-I8	SR 150 / Boyd Road	Traffic signal or roundabout when warranted	—	—
WS-I9	SR 150 / No See Um Road	Construct turn lanes on SR 150 west of Chelan at No See Um Road	—	—
WS-I10	SR 150 / Chelan Falls Road	Provide turn lanes.	—	—
WS-I11	US 97A / Apple Acres Road	Provide turn lanes.	—	—
WS-I12	US 97A / Howard Flats Road	Provide turn lanes.	—	—
WS-I13	US 97A / SR 150	Turn lanes, improved channelization, and traffic control, when warranted.	—	—
Chelan County				
New Roadway				
CC-R1	Corridor Study - Alternative route between Manson and Chelan	Evaluate the feasibility and identify the corridor footprint of an alternate route between Manson and Chelan.	$300	I
CC-R2	Alternative route between Manson and Chelan	Construct an alternate route between Manson and Chelan. The primary focus will be on the segment between Wine Sap Road and Boyd Road.	$49,280	III
Roadway Improvement				
CC-R11	Union Valley Road	Widen, grade, drain, add base and top course, and pave from City Limits to Cagle Gulch Rd.	$2,360	II
CC-R12	Boyd Road	Construct/widen shoulders,construct sidewalks in UGA, upgrade base material, and pave between City limits and Wapato Butte Road.	$3,030	I
Trails				
CC-NM22	Chelan Lakeside Trail - Phase 1	New trail from Lake Chelan State Park to City limits.	$2,080	III
CC-NM23	South Lakeshore Drive Chelan Lake Shore Trail - Phase 2	Widen shoulders, provide pedestrian improvements between 25-mile Creek State Park to Lake Chelan State Park.	$8,770	III
Waterborne				
CC-W1	Lake Chelan water taxi service[4]	For tourism and recreation.	—	—
City				
C-B1	Woodin Avenue Bridge	Add advanced signage to bridge approaches to advise of pedestrian traffic and crossing on bridge at both ends of bridge approach. May include enhanced street lighting or in-pavement flashing lights.	—	—
C-R1	Union Valley Road	Widen, grade, drain, add base and top course, and pave from Gibson Avenue to City Limits.	—	—
C-R2	Boyd Road	Construct/widen shoulders, construct sidewalks, upgrade base material, and pave.	—	—
C-I1	SR 150 /Columbia Street	Signalize intersection and restripe intersection approaches. Add dedicated EB left-turn lane. Right-of-way will be required. Includes modifications to Columbia Street.	—	—
C-I2	Johnson Avenue (SR 150) / Emerson Street	Construct single-lane roundabout with pedestrian refuge islands and center display. Provide pedestrian bulb-outs, crosswalk treatments, and advanced signage.	—	—

C-I3	Johnson Ave (SR 150) / Sanders Street	Construct single-lane roundabout with EB to SB slip lane. May require some right-of-way. Include pedestrian refuge islands, pedestrian bulb-outs, crosswalk treatments, advanced signage, and center display.	—	—
C-I4	Park Road (SR 150) / Gibson Avenue	Stripe exclusive SB and WB left-turn lanes. May require additional pavement and elimination of parking along Gibson Avenue.	—	—
C-I5	Webster Avenue (SR97A) / Woodin Avenue	Stripe exclusive SB left-turn lane. Add advanced signage.	—	—
C-I6	Saunders Street (SR97A) / Woodin Avenue (SR 150)	Upgrade traffic signal. Provide and stripe NB and SB left-turn protected/permissive phasing. Restripe pavement to add new NB right-turn lane.	—	—
C-I7	Woodin Avenue / Columbia Street	Provide median refuge along Woodin Avenue for the SB left-turn movement from Columbia Street. Will require the removal of several parking spaces along Woodin Avenue. Restripe and add channelization and advanced signage to accommodate median refuge.	—	—
C-I8	SR 150 / No See Um Road	Construct turn lanes and improve sight distance on SR 150 at No See Um Road.		
C-I9	US 97A / Farnham Street	Relocate intersection and construct center left-turn lanes.		
C-NM1	Park Road (SR 150) & Gibson Avenue Pedestrian Safety Improvements	Provide pedestrian improvements including construction of overhead and side arm signals with advanced LED signage.	—	—
C-NM2	Park Road (SR 150) & Nixon Avenue Pedestrian Safety Improvements	Provide pedestrian improvements including construction of overhead and side arm signals with advanced LED signage.	—	—
C-NM3	Bradley Street Pedestrian Improvements	Provide pedestrian improvements including: construction of overhead and side arm signals with advanced LED signage at intersection with US 97A; curb ramps and sidewalks between Woodin Avenue and Sayles Avenue.	—	—
C-NM4	Lakeside Trail	Construct mutli-use trail. Off-Street trail between Gibson Ave and Old Woodin Avenue Bridge; on street- trail with sidewalks, curb ramps, stairways, and landings on east side of street between Old Woodin Avenue Bridge and Webster Avenue (US 97A). Continue improvements to City limits.	—	—

1. Cost range in $1,000s of dollars (2008 $).
2. No cost or priorities developed for other agency projects.
3. See Chapter 7, Table 7-3 for definitions.
4. Service provided by the Lady of the Lake.

traffic volumes are even higher and will result in severe congestion through the City and connections to Manson.

Intersection improvements are also needed on these State Highways. There is a project identified at the intersection of SR 150 and No See Um Road to improve intersection safety and operations by adding turn lanes. Additional growth on Golf Course Drive and No See Um Road will require substantial improvements at this intersection location. Most improvements along the State Highways include the addition of turn lanes at intersection or private driveways that serve a high number of vehicles.

County Roadway Improvements

County roadway improvements are included in the Transportation Element to support the residential growth north of the City limits and within the UGA. These include the alternative route described above, along with specific projects on Union Valley Road and Boyd Road. Both corridors will need to be upgraded to urban standards as development continues to occur north of the City.

Based on the project prioritization process established for the Transportation Element and described in Chapter 7, the following projects within the Chelan subarea are among the highest priority (Tier I projects):

- Complete a corridor study of the Manson-Chelan alternative route
- Construct and widen shoulders along Boyd Road

City Roadway Improvements

The City is planning for improvements within its jurisdiction that will also address growth pressures from the County. Within Chelan's Central Business District (CBD), several improvements are identified. At the intersection of Columbia Street/Park Road, a traffic signal will be installed, and the approach lanes will be re-striped. Construction of two single-lane roundabouts on Johnson Avenue are proposed and partially funded with one at Emerson Street and the other at Sanders Street.

A median planter or channelization will also be installed along Woodin Avenue at the intersection with Columbia Street, allowing the southbound left-turn to make the turn in two stages. Woodin Avenue south of the bridge will have frontage improvements including curb, gutter, sidewalk, parking, stairway to Ruth Pingrey Memorial Park, and the multi-use trail. At the intersection with US 97A, exclusive southbound left and right-turn lanes will be striped.

The City will need to relocate the intersection of US 97A and Farnham Street one to two hundred feet to the west to provide center left-turn lanes along US 97A. The current intersection location is too close to the bridge to provide adequate storage for left turning vehicles. The City needs to work with the school district to move the intersection closer towards the school and then re-establish the outside physical education facilities. Any development growth on the Chelan Butte area will have Farnham Street as one of the main access routes.

Non-motorized Improvements

Establishing an enhanced regional trail system in the Chelan area is a high priority of area residents. The existing transportation system is almost exclusively addressing the needs of motorized traffic. However, there is growing demand for safe and convenient pedestrian facilities and bikeways in the area. All along the lakefront adjacent to Park Road, the City has constructed a multi-use pedestrian and bicycle trail between Lake View Drive-In to Columbia Street. North of the Lake View Drive-In, the trail is located within Don Morse Park. The trail is to continue south along the west side of Columbia Street and then southwest along the lake side of Woodin Avenue.

Two projects have been identified to enhance non-motorized circulation along the south shore of the lake. The first project would create a new trail running from the Chelan city limits to Lake Chelan State Park. The second project would involve widened shoulders between Lake Chelan State Park and the 25-mile Creek State Park. In addition, along the north side of the lake WSDOT will maintain a minimum 6-foot shoulder along SR 150 for non-motorized use.

Waterborne

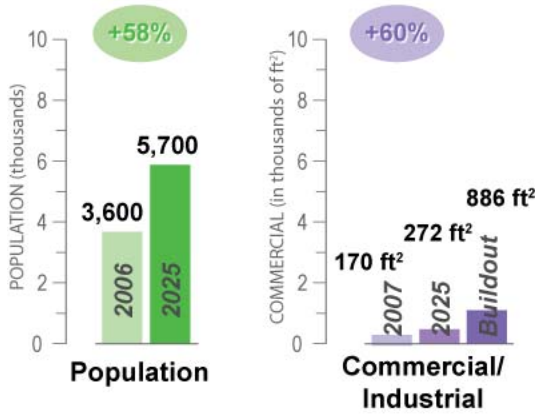
It is expected the Lake Chelan Boat Company will continue to provide passenger boat service between Chelan and Stehekin with scheduled stops at Field's Point and Lucerne. Daily service is available from mid-March through October 31st, with reduced service during the winter.

Commercial water transportation will also continue to be provided by Tom Courtney Tug and Barge and the Lake Chelan Boat Company. For the communities of Stehekin, Lucerne and

Holden, the barges provide the only means of transport of large goods, fuel, building supplies, vehicles and gear not carried via smaller boat or plane.

Manson Subarea

The Manson subarea is planning for additional growth over the next 20 years. Based on preliminary recommendations in the Manson Subarea Plan projections, the population was anticipated to increase by over 2,200 people by 2025, with most of the growth to be allocated within the existing UGA and potential UGA expansion. However, the preliminary draft of the subarea plan was revised after the transportation analysis was completed and no longer assumes expansion of the UGA. While this analysis supports the higher population growth totals, the transportation projects identified are still needed. In addition, seasonal residents will continue to add to the population figures, but were not accounted for in the forecast totals.



The transportation issues identified for the Manson subarea focus on SR 150 which provides the only access to Manson, and runs through this unincorporated community as its main street. Other concerns have to do with enhancing safety and developing non-motorized transportation facilities along the SR 150 corridor and several of the collector and local streets in the UGA. The roadway system was originally built to serve agricultural uses, so a number of safety concerns have been identified on farm-to-market routes around Manson.

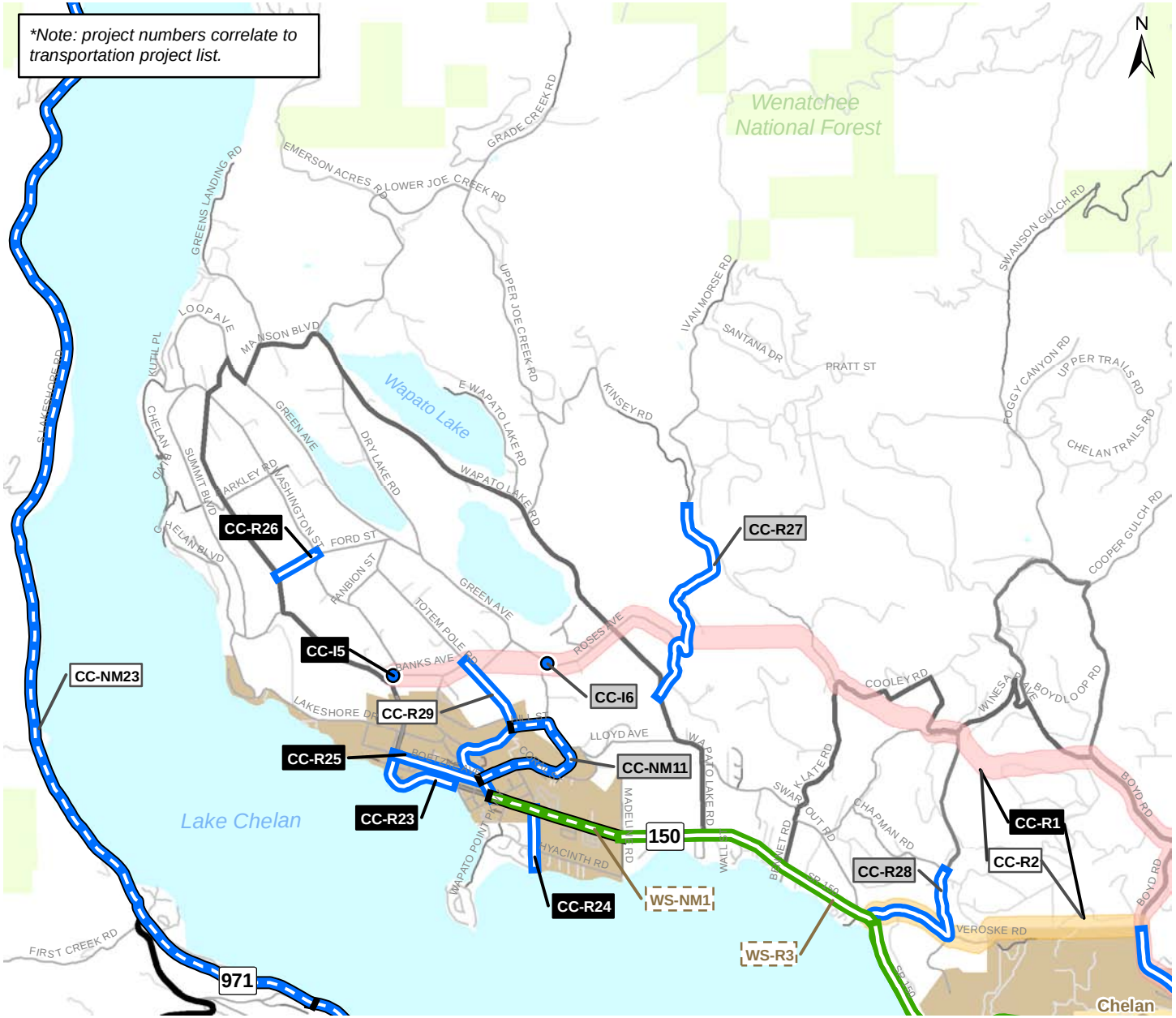
Based on existing deficiencies and anticipated growth, the following transportation improvement projects have been identified for the Manson subarea. They are shown on Figure 8-7 and listed in Table 8-6.

State Highway Improvements

SR 150 runs through Manson, with daily volumes currently around 5,000 vehicles during an average weekday. Traffic volumes are higher in the summer due to increased tourist traffic and seasonal homes. Projections for the 20-year planning horizon show that average daily volumes could reach 8,500 vehicles per day (vpd) on segments of the highway within the Manson UGA. Safety issues are associated with the State Highway being the main street through the commercial area. Speed management and provisions for pedestrian crossings are among the highest priority issues identified by the community.

The intersection of SR 150 and Madeline Road has been identified as needing turn lane improvements to address safety issues at the intersection. WSDOT will continue to plan to widen SR 150 for turn lanes at public road intersections and private approaches through developer construction as SEPA mitigation. The State will strive to maintain a 6-foot wide paved shoulder for non-motorized use.

The idea of a possible alternate route between Chelan and Manson (parallel to SR 150 further north) has been suggested. It is recommended to evaluate the feasibility and identify possible corridor alignments for an alternate route between Manson and Chelan. This corridor study is among the top priority (Tier I) projects of this plan. The study would investigate alternative route options, and possible focus on short segments that could be built such as a segment between Wine Sap Road and Boyd Road.



Manson Transportation Improvement Projects

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIG8-7_ImpsManson.mxd

transpoGROUP

FIGURE **8-7**

Table 8-6. Manson Subarea Transportation Improvement Project List

Project ID	Project Title	Project Description	Cost[1, 2]	Priority Tier[2, 3]
WSDOT				
WS-R3	SR 150 Roadway Widening	Widen SR 150 for left turn lanes or two-way left turn lanes where needed and feasible throughout the corridor	—	—
WS-R8	SR 150 Shoulder Widening	Widen shoulders to 4 ft. minimum in the vicinity of Rocky Point	—	—
WS-NM1	SR 150	Construct missing sidewalk segments within the Manson UGA.	—	—
Chelan County				
New Roadway				
CC-R1	Corridor Study - Alternative route between Manson and Chelan	Evaluate the feasibility and identify the corridor footprint of an alternate route between Manson and Chelan.	$300	I
CC-R2	Alternative route between Manson and Chelan	Construct an alternate route between Manson and Chelan. The primary focus will be on the segment between Wine Sap Road and Boyd Road.	$49,280	III
Roadway Improvement				
CC-R23	Manson Boulevard Phase II	Grade, install storm water drainage systems, widen, construct retaining wall systems, add base and top course, and pave between Boetzkes Avenue and Pedoi Street.	$2,610	I
CC-R24	Quetilquasoon Road Drainage Project	Construct storm drainage system between Wapato Way and Chelan View.	$330	I
CC-R25	Boetzkes Avenue	Evaluate the feasibility of truck bypass to avoid segment of Manson Blvd.	$30	I
CC-R26	Ford Street	Construct/widen shoulders and reconstruct roadway between Manson Blvd and Washington Street.	$1,380	I
CC-R27	Ivan Morse Road	Construct/widen shoulders, improve horizontal curves and safety between Wapato Lake Road and Kinsey Road.	$1,570	II
CC-R28	Wine Sap Road	Construct/widen shoulders, improve horizontal curves and safety, upgrade base material, and pave between SR 150 and Chapman Road.	$1,330	II
CC-R29	Totem Pole Road	Roadway improvements, such as pavement, base, shoulder widths and sidewalks between Wapato Way and Banks Avenue.	$5,180	III
Intersections				
CC-I5	Washington St / Banks Ave	Traffic control, signage, and intersection geometry improvements, as well as safety and sight distance improvements.	$280	I
CC-I6	Green Avenue / Roses Avenue	Intersection safety and sight distance improvements at Green Ave / Roses Ave.	$240	II
Non-motorized Improvements				
CC-NM11	Green Avenue / Hill Street	Construct sidewalk on Green Avenue from Totem Poll Road to Hill Street and on Hill Street from Green Avenue to Totem Pole Road.	$1,260	II
Trails				
CC-NM26	North Shore Pathway	Trail and/or wider shoulder from Manson to Chelan along SR 150.	$2,210	III
Waterborne				
CC-W3	New water taxi service between Lake Chelan State Park and Manson	For tourism, recreation, and economic development.	—	—

1. Cost range in $1,000s of dollars (2008 $).
2. No cost or priorities developed for other agency projects.
3. See Chapter 7, Table 7-3 for definitions.

County Roadway Improvements

Roadway improvement projects are recommended on various roadways in and around the UGA. Improvements involve reconstructing roadways, widening shoulders, and enhancing safety. Specific roadway segments have been identified for improvements and include Ford Street, Ivan Morse Road, Winesap Road, and Totem Pole Road. Many of these improvements consist of reconstruction of the roadways to include wider shoulders, improved horizontal curves, and new pavement.

Intersection improvements are needed at the intersection of Washington Street with Banks Avenue, and at the intersection of Green Avenue and Roses Avenue. In both cases, improvements involve sight distance enhancements to improve safety conditions, with possible traffic control and illumination improvements.

A study should be conducted to evaluate the feasibility of establishing a truck bypass route along Boetzkes Avenue to avoid a section of Manson Boulevard. This would divert truck traffic away from the residential homes, steep grades, and sharp curves where Manson Boulevard parallels the lake.

Based on the project prioritization process established for the plan, the following projects within the Manson area are among the highest priority (Tier I projects):

- Conduct a study for a truck bypass on Boetzkes Avenue
- Roadway improvements on Ford Street between Manson Boulevard and Washington Street
- Intersection improvements at Washington Street / Banks Avenue
- Corridor study for an alternative route between Manson and Chelan

Non-motorized Improvements

As the area develops into a more urban environment, adequate pedestrian facilities need to be provided. New sidewalks should be added along SR 150 within the Manson UGA. In addition, WSDOT has identified the need for shoulder widening between Chelan and Manson that could also be used as a bicycle or pedestrian pathway. Other roadways in need of pedestrian improvements include Green Avenue, Hill Street and Totem Pole Road. These corridors provide primary access to the nearby elementary school and sidewalks and improved crossings are needed to address safety.

Transit Improvements

A park and ride lot in Manson could help encourage transit use by the Manson community. Manson has service to Chelan and to Wenatchee. Transit could provide a viable transportation alternative for commuters and tourists connecting to Chelan, Entiat, and Wenatchee.

Waterborne Transportation Improvements

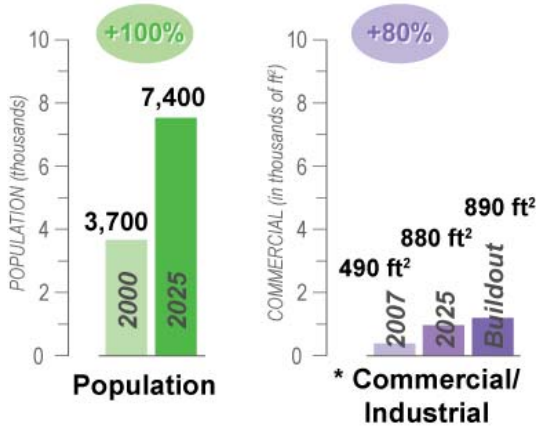
The topography of the region and the long narrow shape of the lake limit potential road corridors and result in circuitous and lengthy commutes between the State Park and other sites within the lake basin. In order to facilitate travel between the south and north shores of the lake, a new ferry service between Lake Chelan State Park and Manson has been proposed. Should this be implemented, it would help reduce vehicular traffic around the lake during the summer months, providing traffic congestion relief on SR 150. It would also offer improved tourist and recreational opportunities.

Cashmere/Monitor Subarea

Cashmere and Monitor are primarily residential communities with a large percentage of the population commuting to Wenatchee for employment. Approximately 55 percent of the total land area within the City of Cashmere is occupied by residential properties, primarily single family homes.

The Cashmere/Monitor subarea had approximately 3,700 people in 2000 with the population anticipated to double by 2025. The additional residential growth is forecast to predominantly occur in the Cashmere area, with some growth in the Monitor community once water and sewer services are provided. This is an increase of approximately 3,700 people within the Cashmere/Monitor subarea by the year 2025. Within the Cashmere UGA, about one third of the population growth is expected to occur within the Cashmere city limits, while the rest will occur in the unincorporated areas.

There are few vacant residential lots available within the City limits of Cashmere. However, recent changes to the Land Use Element, including the Comprehensive Land Use Designations Map, have resulted in more land being available for new residential development, particularly in the UGA.



Some of the existing deficiencies on the transportation system will only worsen over time with increased level of use from the expected growth. Priorities include improving operations and safety on US 2, improvements to the bridges and railroad crossings, and construction of non-motorized transportation facilities. The projects are summarized on Figure 8-8 and listed on Table 8-7.

State Highway Improvements

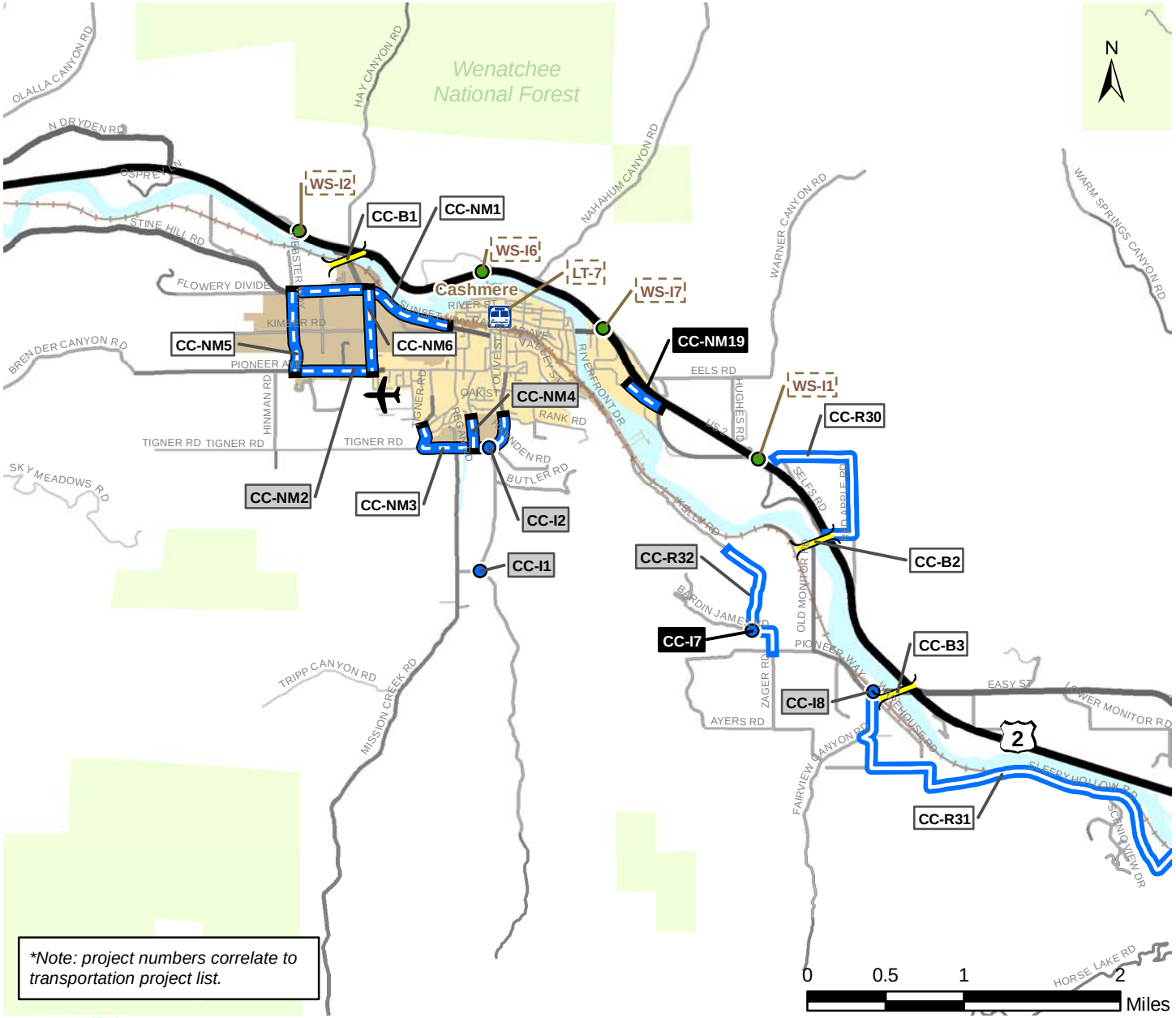
Daily traffic volume on US 2 is 21,400 vehicles and is expected to exceed 33,000 vehicles by Year 2028. Congestion and safety concerns already exist, particularly at several intersections with high turning movements on and off the highway such as Cotlets Way, Goodwin Road, Red Apple Road and Old Monitor Road. Particular concerns are raised by the configuration of the Aplets Way and Cottage Avenue intersections with US 2. Additional passing lanes, pull-outs and rest areas to better accommodate freight and tourists have also been suggested. The US 2/97 Corridor Safety Study (June 2002) identifies several proposed interchanges in the subarea, such as the East Cashmere interchange near Red Apple Road and the Goodwin Road interchange.

WSDOT has a project to install a median barrier on US 2/97 between the US 97 interchange and Aplets Way (a section of 6.2 miles). This project is included in the WSDOT North Central Region 2008-2013 financially constrained project list. Other potential projects include intersection improvements on US 2 at the Aplets Way and Cotlets Way intersections.

County Roadway Improvements

The County needs to rehabilitate or replace old bridges connecting the communities to US 2: the Goodwin Road Bridge in West Cashmere, and the West Monitor Bridge and Main Street Bridge in Monitor. The rehabilitation or replacement of these bridges should include consideration of non-motorized facilities and overall circulation.

The idea of an alternate route between Cashmere/Monitor and Wenatchee has been suggested. Connectivity and emergency management options would be enhanced by upgrading roadways



Legend

Transportation Projects

- Bridge Improvement
- Intersection Improvement - County
- Intersection Improvement - State
- Park & Ride
- Roadway Improvement - County
- Non-Motorized Improvement - County
- Airport
- Railroad
- City Limits
- Urban Growth Areas

Other Projects Not Mapped

CC-NM27	Valley Trail - Monitor to Wenatchee
CC-NM21	Valley Trail - Cashmere to Monitor
CC-NM20	Valley Trail - Dryden to Cashmere
WS-I23	US 2/97 Intersection Improvements
WS-R2	US 2/97 Roadway Improvements

*Only county projects have been prioritized

Prioritized projects have been grouped into three tiers. The tiers can be related to funding as defined below:

XXX	**Tier 1:**	Projects that typically address existing deficiencies. Likely to be lower cost & shorter term.
XXX	**Tier 2:**	Projects not likely to be completed using existing capital revenue streams.
XXX	**Tier 3:**	Longer term projects likely to be funded primarily by new developments or grant revenues.
XXX		*Projects not prioritized*

Cashmere/Monitor Transportation Improvement Projects

Chelan County Transportation Element

FIGURE **8-8**

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Subarea Maps\Report Figures\FIG8-8_ImpsCashmereMonitor.mxd

Table 8-7. Cashmere/Monitor Subarea Transportation Improvement Project List

Project ID	Project Title	Project Description	Cost[1, 2]	Priority Tier[2, 3]
WSDOT				
WS-R2	US 2/97 West of Cashmere	Install median barrier between MP 104.8 and MP 111.	—	—
WS-I1	East Cashmere Diamond Interchange	Diamond interchange east of the Red Apple Road/Old Monitor Road intersection with frontage road connections via Titchnal Way to Cottage/Cotlets Avenue.	—	—
WS-I2	Goodwin Road Bridge Replacement	New grade separated crossing of US 2/97 approximately one-quarter mile west of the existing Goodwin Road/Hay Canyon Road intersection. This may be considered the first phase of a new diamond interchange.	—	—
WS-I6	US 2 / Aplets Way	Intersection improvements.	—	—
WS-I7	US 2 / Cotlets Way	Intersection improvements.	—	—
WS-I23	US 2/97 Short Term Intersection Improvements	Short term intersection improvements (restriping left-turn pockets, adding pavement for right-turn lanes or pockets, adding illumination) as identified in the US 2/97 Corridor Safety Study (June 2002).	—	—
Chelan County				
Roadway Improvement				
CC-R30	Red Apple Road	Widen, add base and top course, and pave	$1,760	III
CC-R31	Sleep Hollow Road / E Richared Road - Improve route between Monitor and Wenatchee	Improve alternate roadway between Monitor and Wenatchee south of US 2/97 along Sleepy Hollow Road. Upgrade existing County roadways including shoulder widening, signage, base material, and new pavement.	$8,780	III
CC-R32	Kelly Road/Zager Road	Widen, add base and top course, and pave between Monitor Orchard Road and approximately 0.60 miles north of Barden James Road	$880	II
Bridges				
CC-B1	West Cashmere (Goodwin Road) Bridge	Rehabilitate/replace aged bridge	$15,500	III
CC-B2	Old Monitor Road Bridge	Rehabilitate aged bridge. Currently funded.	$4,500	III
CC-B3	Monitor Main Street Bridge	Rehabilitate/replace aged bridge	$15,700	III
Intersections				
CC-I1	Yaksum Canyon Rd / Coates Rd	Sight distance improvements	$190	II
CC-I2	Binder Rd / Yaksum Canyon Rd	Sight distance and traffic control improvements	$280	II
CC-I7	Kelly Rd / Barden James Rd	Improve safety by reconstructing intersection to eliminate 'Y' intersection and create a 'T' intersection	$100	I
CC-I8	Monitor Main Street at-grade railroad crossing	Improve alignments, illumination, safety enhancements.	$240	II
Non-motorized Improvements				
CC-NM1	Sunset Highway	Improve pedestrian and bicycle facilities on Sunset Highway from City limits to UGA limits.	$3,750	III
CC-NM2	Pioneer Avenue	Improve pedestrian and bicycle facilities on Pioneer Avenue from Evergreen Dr to UGA limits.	$1,790	II
CC-NM3	Binder Road/Olive Street	Improve pedestrian and bicycle facilities on Binder Road/Olive Street from Rank Road to Tigner Road.	$2,700	III

CC-NM4	Mission Creek Road	Improve pedestrian and bicycle facilities on Mission Creek Road from City limits to Binder Road.	$690	II
CC-NM5	Wescott Drive	Improve pedestrian and bicycle facilities from Pioneer Avenue to Sunset Highway.	$2,700	III
CC-NM6	Evergreen Drive	Improve pedestrian and bicycle facilities from Pioneer Avenue to Sunset Highway.	$1,860	III
Trails				
CC-NM19	Tichenal Road Connection	Provide pedestrian/bicycle connection between Tichenal Rd to Old Monitor Rd	$270	I
CC-NM20	Valley Trail - Dryden to Cashmere	Identify ROW and construct trail between Dryden and Cashmere.	$1,940	III
CC-NM21	Valley Trail - Cashmere to Monitor	Identify ROW and construct trail between Cashmere and Monitor.	$1,460	II
CC-NM27	Valley Trail - Monitor to Wenatchee	Identify ROW and construct trail between Monitor and Wenatchee. Could include use of irrigation canal.	$2,280	I

1. Cost range in $1,000s of dollars (2008 $).
2. No cost or priorities developed for other agency projects.
3. See Chapter 7, Table 7-3 for definitions.

south of US 2 such as Sleepy Hollow Road. A study completed by the County in 2005 identified necessary upgrades including shoulder widening, signage, base material and new pavement.

Two at-grade railroad crossings create delays and raise safety concerns in this subarea: on Main Street in Monitor and Division Street in Cashmere. Solutions should be explored including improving alignments, illumination, and safety enhancements. A grade separation option has been evaluated for Main Street but is not readily feasible at this location due to substantial property impacts, right-of-way needs, and costs.

Several roadway improvements are needed in the Monitor area. A project on Kelly Road and Zager Road would improve the roadway by widening and repaving this section of roadway which is currently only 16 feet wide. There is also a project to widen and upgrade Red Apple Road, which is likely to be considered a condition for new development in the area.

Intersection improvements are primarily required to improve safety conditions. Two intersections along Yaksum Canyon Road, south of Cashmere, were identified as requiring sight distance and traffic control improvements: at Binder Road and at Coates Road. Another intersection in need of improvements is the intersection of Kelly Road and Barden James Road: a “T” intersection would be created to eliminate the current “Y” intersection. This project would be coordinated with the roadway improvement project proposed for this roadway section.

The intersection improvement project at Kelly Road and Barden James Road is among the highest priority (Tier I projects) based on the project prioritization process established for the Transportation Element primarily because it can be completed at little cost.

Non-motorized Improvements

New trails in the subarea include a connection between Tichenal Road and Old Monitor Road. This trail has been identified as part of the County Parks & Recreation Plan and would provide a connection just south of US 2/97 so bicyclists and pedestrians would not need to use the shoulder of the highway.

Another high priority trail project in the area is the Valley Trail. Three separate segments of the Valley Trail either end of begin in the subarea. One of the first segments will likely connect Monitor and Wenatchee and is proposed to closely follow the irrigation canal that extends between Monitor and Wenatchee. The next segment would be between Cashmere and Monitor

and follow the river on either the north or south side. Eventually the trail would be extended between Cashmere and Dryden. This segment of the trail is likely to be one of the last phases due to very few right-of-way options.

Facilities for pedestrian travel should be improved. Some sidewalks need to be replaced, and new sidewalks and crosswalks are needed. There are no bicycle facilities in the subarea. Some roadways such as Mission Creek Road, Sunset Avenue, and Pioneer Avenue pose a problem for pedestrians and bicyclists due to poor pavement conditions and the high level of truck traffic.

A number of street sections in Cashmere have been identified by the stakeholders as requiring new or improved pedestrian and bicycle facilities. Corridors such as Sunset Highway, Pioneer Avenue, Binder Road, Mission Creek Road, Wescott Drive, and Evergreen Drive have been identified as needing sidewalk improvements with specific projects listed in the Transportation Element:

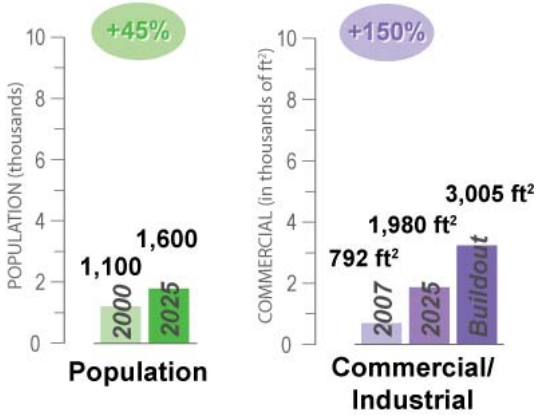
The Valley Trail project between Monitor and Wenatchee, and the new trail connection between Tichenal Road and Old Monitor Road are among the top priority projects (Tier I) of the Transportation Element.

Transit Improvements

LINK Transit is studying the opportunity of creating a new park-and-ride lot in Cashmere. A potential site has been proposed on the west side of Aplets Way, and just north of the railroad tracks. Route 22 currently has limited local service through Cashmere. Commuter buses currently stay on US 2, but bus routes and schedules could be adjusted to better serve the needs of the Cashmere and Monitor residents, and other commuters.

Peshastin/Dryden Subarea

The Peshastin Subarea Plan was recently adopted by the County. It created a new 605 acre UGA which includes the existing commercial and residential areas on the north side of the Wenatchee River, but also includes the properties bordering US 2 on the south side and the largely agricultural lands on the southwest corner of the new Big Y interchange.



The population projection for the Peshastin/Dryden subarea is 1,600, a growth of 500 people compared to the year 2000 population. An allocation of 1,100 people in the year 2025 was established for the future UGA.

The existing circulation pattern in Peshastin is largely dependent on US 2 and Main Street. Access to and from US 2 relies on the Old Peshastin bridge which is narrow and lacks basic pedestrian and bicycle accommodations. The bridge also does not provide sufficient width and radius to meet current design standards for large trucks. A number of streets within the Peshastin area are currently narrow and are not adequate to serve the anticipated level of development.

Dryden has many of the same issues regarding the condition of roadway infrastructure, but is not forecast to have much growth. Therefore few projects were identified for that community.

Peshastin is anticipated to experience moderate residential growth, and relatively high levels of commercial and industrial development. Residential growth is expected to occur primarily in the northern part of the area. Local access roads built to serve agricultural needs (orchards) need to be upgraded to support residential developments.

The Big Y interchange area is anticipated to experience significant development including industrial, commercial and residential uses. This development will require improvements to the transportation system, including highway and intersection improvements along US 2 and US 97, construction of new roadways, and reconstruction of existing roads. Industrial development is also expected to occur in the Port industrial area on the north side of Peshastin between the Wenatchee River and the BNSF railroad. A new bridge across the river would support the anticipated development.

Transportation improvements will be needed to address existing deficiencies and support the anticipated growth within the subarea. The identified projects are summarized on Figure 8-9 and Table 8-8.

State Highway Improvements

Daily traffic volume on US 2 near Peshastin is currently about 12,500 vehicles per day (vpd). With the growth of general traffic and anticipated commercial development along US 2 between Leavenworth and the Big Y, daily traffic volumes are expected to exceed 21,000 vpd in 2028. The construction of the new interchange at US 2/97 which was completed in late 2008 increases safety by eliminating several at-grade intersections. The interchange provides safer turning movements to and from US 2 and US 97.

Access management treatments are needed north of the new interchange between the Old Peshastin Bridge and the proposed new bridge to the old Peshastin mill site. Adjoining property and business driveways need to be consolidated, a center turn lane added, and pedestrian improvements made along the US 2 Highway corridor. Access management treatments could also include eliminating access at the westerly Stage Road intersection. Improved illumination is needed at the intersection of US 2 with Stage and Stemm Roads. WSDOT will work to address these needs through developer SEPA mitigation.

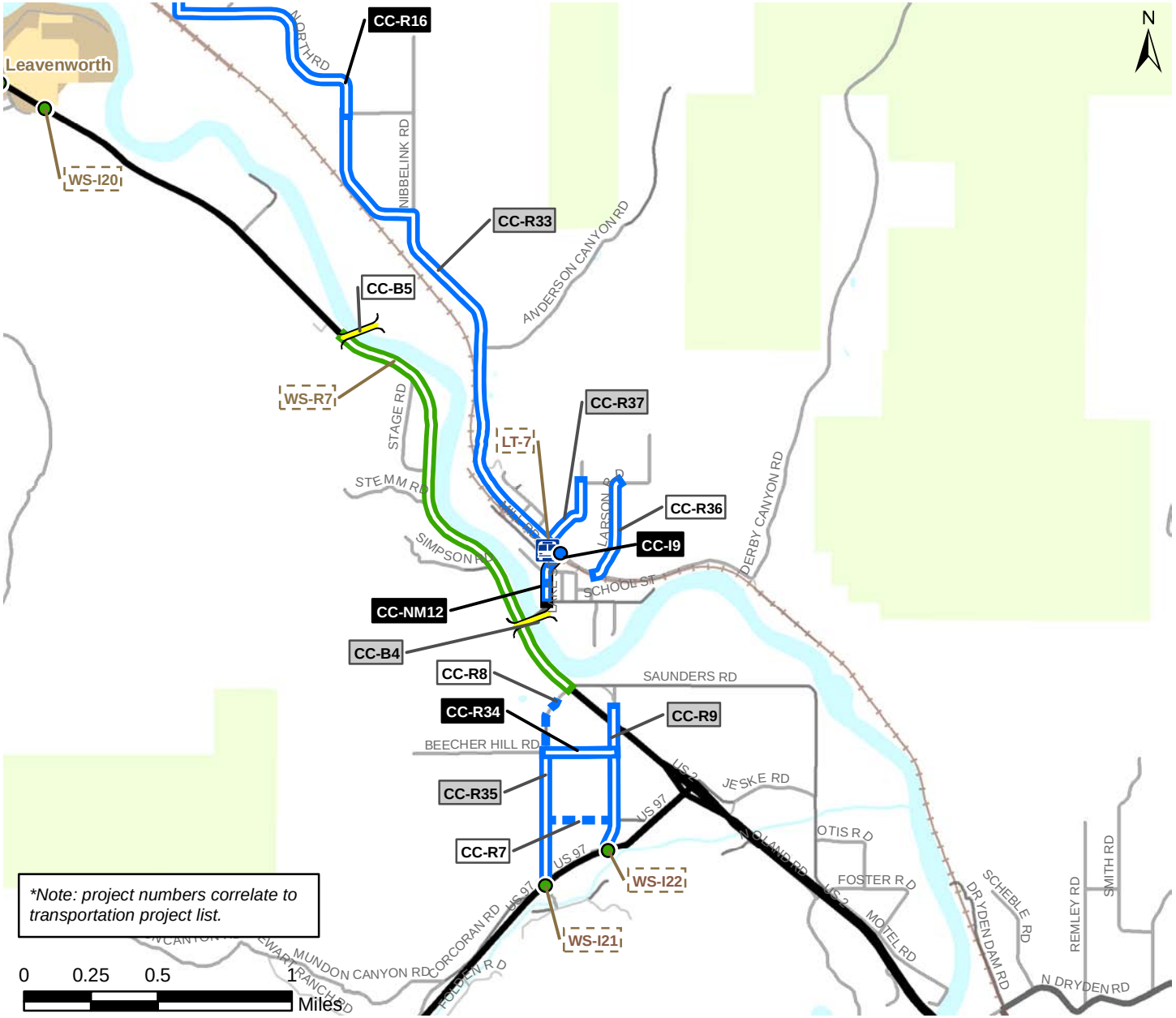
County Roadway Improvements

Mobility and safety within the Peshastin area would benefit from rehabilitating the Old Peshastin Bridge or replacing it with a new bridge. Another option would be to create a second bridge to serve the needs of non-motorized users. The possibility of creating a new bridge across the Wenatchee River to the north of Peshastin to serve the Port industrial area (old mill site) has also been mentioned as a way to support economic development.

Roadway improvements have been identified in support of the development near the Big Y interchange. The proposed improvements are illustrated graphically in Figure 8-8. They include upgrades to existing roadways (Roller Coaster Road, Blewett Cutoff Road, Beecher Hill Road), new connections (north-south between Green Road and Roller Coaster Road, and east-west between Roller Coaster Road and Blewett Cutoff Road) and intersection improvements along US 97. Additional illustrations of the access needs along US 97 are provided in the Appendix A materials.

North Road would be improved with wider shoulders and safety enhancements starting at Main Street. The improvements are planned to be completed in sections, but will eventually include the entire segment between Peshastin and Leavenworth. Other local streets are in need of urban upgrades to serve the expected growth within the Peshastin UGA, including Lartson Road and Ludwig Hill Road.

Main Street through Peshastin should be improved with street lighting, signage and traffic control enhancements since this is the main roadway into the community and is next to a school.



*Note: project numbers correlate to transportation project list.

Legend

Transportation Projects

- Bridge Improvement
- Intersection Improvement - County
- Intersection Improvement - State
- Park & Ride
- New Roadway - County
- Roadway Improvement - County
- Roadway Improvement - State
- Non-Motorized Improvement - County
- Airport
- Railroad
- City Limits
- Urban Growth Areas

Other Projects Not Mapped

CC-NM25	Valley Trail - Leavenworth to Peshastin
CC-NM28	Valley Trail - Peshastin to Dryden
WS-I23	Valley Trail - Peshastin to Dryden

*Only county projects have been prioritized

Prioritized projects have been grouped into three tiers. The tiers can be related to funding as defined below:

XXX	**Tier 1:**	Projects that typically address existing deficiencies. Likely to be lower cost & shorter term.
XXX	**Tier 2:**	Projects not likely to be completed using existing capital revenue streams.
XXX	**Tier 3:**	Longer term projects likely to be funded primarily by new developments or grant revenues.
XXX		*Projects not prioritized*

Peshastin/Dryden Transportation Improvement Projects

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIG8-9_ImpsPeshastin.mxd

transpoGROUP

FIGURE **8-9**

Table 8-8. Peshastin/Dryden Subarea Transportation Improvement Project List

Project ID	Project Title	Project Description	Cost[1, 2]	Priority Tier[2, 3]
WSDOT				
WS-R7	US 2 - Access Management	Access management treatments to adjoining properties and construction of a two-way center left-turn lane. Includes improved illumination and possible closure of westerly Stage Road access.	—	—
WS-I21	US 97 / Rollercoaster Road	Intersection improvements, including traffic control when warranted.	—	—
WS-I22	US 97 / Blewett Cut-off Road	Intersection improvements, including traffic control when warranted.	—	—
WS-I23	US 2/97 Short Term Intersection Improvements	Short term intersection improvements (restriping left-turn pockets, adding pavement for right-turn lanes or pockets, adding illumination) as identified in the US 2/97 Corridor Safety Study (June 2002).	—	—
Chelan County				
New Roadway				
CC-R7	East-west collector between Roller Coaster Rd and Blewett Cutoff Rd	Construct new roadway to serve proposed UGA commercial/residential areas west of new interchange.	$1,240	III
CC-R8	North-south collector between Green Rd and Rollercoaster Rd	Construct new collector arterial to serve proposed UGA commercial/residential areas west of new interchange.	$1,050	III
Roadway Improvement				
CC-R9	North-south connection using new US 2 underpass - Blewett Cut-off Road	Upgrade underpass connection being built by WSDOT for agricultural uses to County roadway standards at the US 2 / 97 interchange. Upgrade Blewett Cut-off Road.	$560	II
CC-R33	North Road	Construct/widen shoulders, improve horizontal curves, signage, and safety between Nibblelink Rd (north connection) and Main Street.	$2,520	II
CC-R34	Beecher Hill Road	Improve existing roadway to serve proposed UGA commercial/residential areas west of new interchange between Rollercoaster Road and Blewett Cutoff Road.	$1,110	I
CC-R35	Rollercoaster Road	Improve existing roadway to serve proposed UGA commercial/residential areas west of new interchange between Beecher Hill Road and US 97.	$2,130	II
CC-R36	Larson Road	Local street in need of urban upgrades to serve expected growth in the Peshastin UGA.	$1,080	III
CC-R37	Ludwig Hill Road	Local street in need of urban upgrades to serve expected growth in the Peshastin UGA.	$820	II
Bridges				
CC-B4	Old Peshastin Bridge	Replace or rehabilitate bridge. Should include pedestrian facility improvements or separate trail bridge.	$14,200	II
CC-B5	New Bridge across Wenatchee River	Construct a new bridge to provide access to the Port industrial area on the north side of the Wenatchee River.	$10,160	III
Intersections				
CC-I9	Main Street / Peshastin Rd	Illumination, signage, and traffic control improvements.	$280	I
Non-motorized Improvements				
CC-NM12	Main Street / Peshastin Road	Complete missing sidewalk segments.	$480	I
Trails				
CC-NM20	Valley Trail - Dryden to Cashmere	Identify ROW and construct trail between Dryden and Cashmere.	$1,940	III
CC-NM25	Valley Trail - Leavenworth to Peshastin	Identify ROW and construct trail between Leavenworth and Peshastin.	$1,460	I

CC-NM28	Valley Trail - Peshastin to Dryden	Identify ROW and construct trail between Peshastin and Dryden.	$1,010	III
LINK TRANSIT				
LT-7	Evaluate Feasibility of Additional Park & Ride Facilities	Study additional park & ride location in Peshastin.	—	—

1. Cost range in $1,000s of dollars (2008 $).
2. No cost or priorities developed for other agency projects.
3. See Chapter 7, Table 7-3 for definitions.

Based on the project prioritization process established for the Transportation Element, the following roadway improvement projects within the Peshastin/Dryden subarea are among the highest priority (Tier I projects):

- Roadway improvements on North Road between Main Street and Nibblelink Road
- Roadway upgrades on Beecher Hill Road
- Intersection improvements at Main Street / Peshastin Road

Non-motorized Improvements

One of the first segments of the Valley Trail is anticipated to occur between Peshastin and Leavenworth. The trail will likely follow the Wenatchee River and use the Old Peshastin Bridge to cross between the old and new parts of the community, making non-motorized facilities on the bridge a key project. Another segment of the Valley Trail will then connect Peshastin with Dryden and could utilize the new underpass of US 2 along the Blewett Cut-off Road corridor to cross to the north side of US 2. Eventually the Valley Trail would be extended to Cashmere.

The subarea is also in need of new non-motorized facilities along existing and future roadways. Existing sidewalks are limited and patchy throughout the community. There are no bicycle facilities within the Peshastin area. In addition to new pedestrian and bicycle facilities on the Old Peshastin Bridge, a project to complete missing sidewalk segments along Main Street has been identified and included in the project list.

The following are high priority non-motorized projects within the Peshastin/Dryden subarea:

- Sidewalks on Main Street and Peshastin Road
- Completion of the Valley Trail project between Leavenworth and Wenatchee

Transit Improvements

LINK Transit is studying the possibility of developing a park-and-ride lot on the site currently used for a bus stop and turnaround near the railroad under crossing on Main Street. The existing park-and-ride lot at the Big Y is expected to continue being used, but a location closer to the central part of the community would provide for improved transit options.

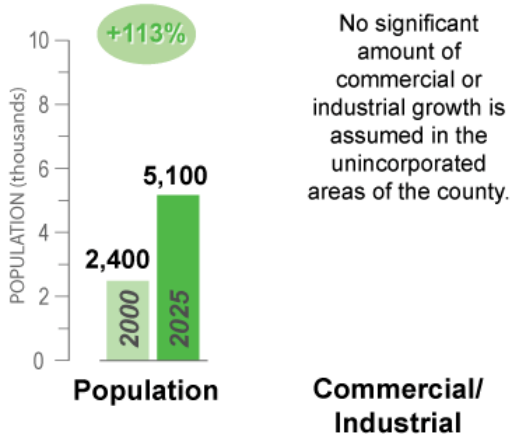
Leavenworth Subarea

The City of Leavenworth and its urban growth area is planning towards a population of 5,100 people by 2025. This population growth will require about 1,320 additional housing units. The City of Leavenworth anticipates that eventually the entire Ski Hill area will be part of Leavenworth's Urban Growth Area. The majority of the population growth within the UGA is expected to occur in unincorporated areas rather than within city limits.

Many of the transportation needs in the Leavenworth area address congestion and safety issues along US 2. US 2 is part of the National Highway System and runs through the City of Leavenworth. The City relies heavily on the tourist industry and regularly hosts events that draw

large groups of people. It is a challenge to serve the needs of regional through traffic while maintaining and improving the main street character and pedestrian safety. In addition, the area is growing and the transportation infrastructure needs to support the anticipated development, particularly in the UGA located north of the City limits.

Transportation system improvements covering all modes of transportation are necessary to address existing deficiencies and continue to support the economic vitality of the area. These improvements will have to be considered in the context of an area that is environmentally sensitive with the proximity of the Wenatchee National Forest, the Wenatchee River, creeks, unstable soils, and wetlands. In addition, impacts on historical buildings and urban development will have to be addressed. Key roadways providing access to US 2 or connectivity with other communities are in need of improvements to serve existing and future needs.



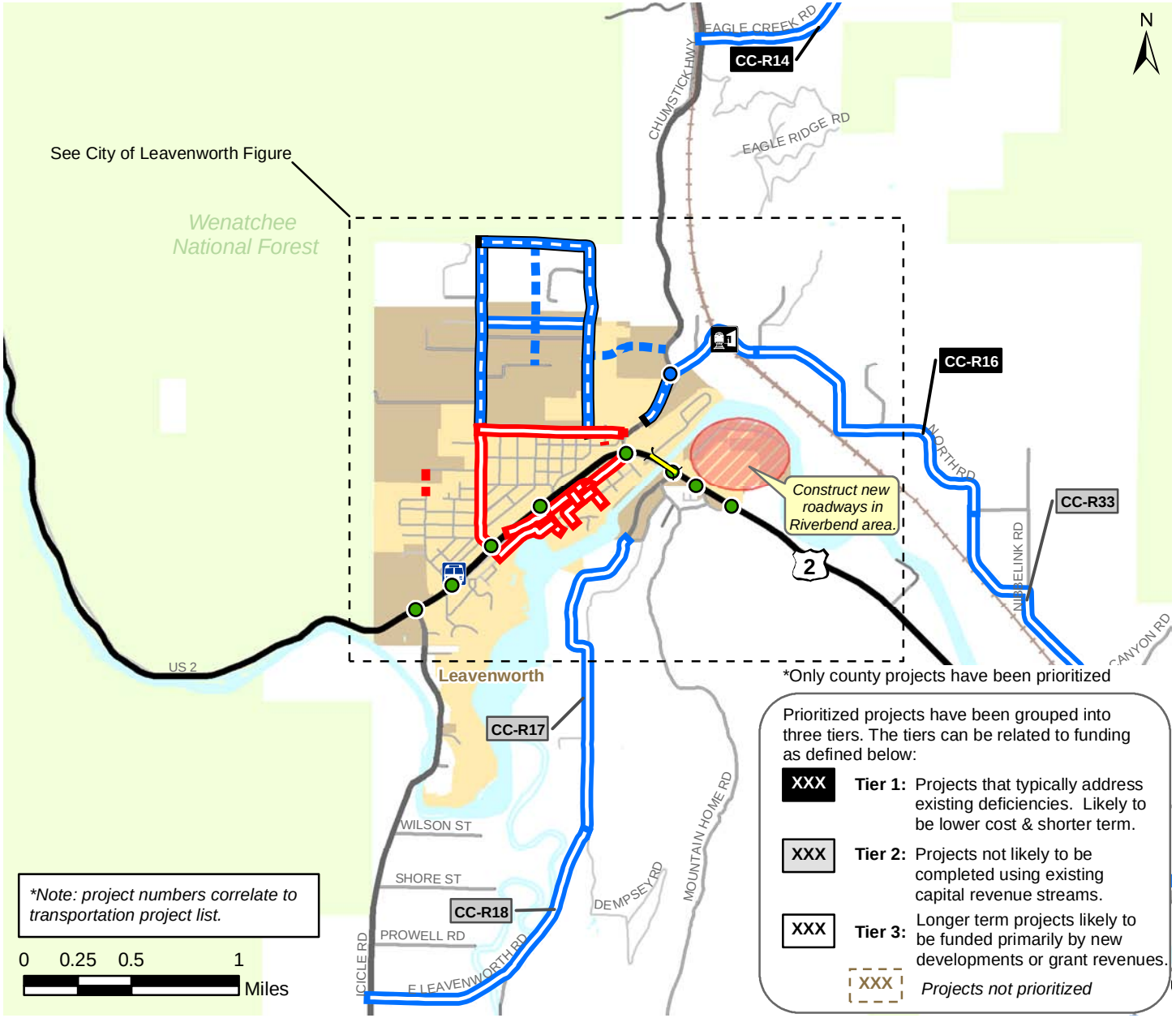
Based on existing deficiencies and anticipated development, a number of transportation improvement projects are recommended for the Leavenworth area. The recommended transportation improvements are listed in Table 8-9 and shown graphically on Figures 8-10 (Leavenworth Subarea) and 8-11 (City of Leavenworth).

State Highway Improvements

US 2 serves as the main street through Leavenworth and is heavily used by regional thru traffic, as well as local residents. Average daily traffic volumes are expected to increase from about 10,000 vehicles per day (vpd) to more than 15,000 vpd. Recreation and tourism activities draw a considerable amount of vehicles and pedestrians to the downtown. A number of intersections along US 2 are anticipated to become heavily congested on a regular basis in the future if no improvements are implemented. These intersections include: E. Leavenworth Road, Chumstick Highway, Ski Hill Drive, Mill Street, and Icicle Road. The heavy pedestrian activity, particularly on weekends and during the summer, has created pedestrian crossing safety concerns along US 2. A pedestrian underpass is proposed along US 2 near the downtown park, across from City Hall.

A preliminary design study has been identified by the City to further investigate and define potential solutions and enhancements along the US 2 corridor through Leavenworth. The types of improvements could include adding turn lanes, sight distance enhancements, improved mid-block crosswalks, access management, and adding traffic control, such as roundabouts. Roundabouts have been investigated as possible solutions for both the E. Leavenworth Road and Chumstick Highway intersections. Preliminary traffic analysis suggests that a roundabout would improve operations at the E. Leavenworth Road intersection, if feasible. The Chumstick Highway intersection would also be a possible location for a roundabout, but the preliminary operations analysis indicates a one-lane roundabout will not likely meet LOS standards during future peak conditions. In addition, more right-of-way would be needed to support a larger roundabout to allow for truck movements while also including slip lanes to improve operational efficiency.

WSDOT should continue to work with the City, County, and other relevant agencies to study and prioritize needed improvements along US 2. The improvements to the corridor are required to address congestion, safety, and non-motorized access along US 2. The tourism and business community should be closely involved in developing solutions.



Prioritized projects have been grouped into three tiers. The tiers can be related to funding as defined below:

XXX	**Tier 1:**	Projects that typically address existing deficiencies. Likely to be lower cost & shorter term.
XXX	**Tier 2:**	Projects not likely to be completed using existing capital revenue streams.
XXX	**Tier 3:**	Longer term projects likely to be funded primarily by new developments or grant revenues.
XXX		*Projects not prioritized*

Legend

Transportation Projects

- Bridge Improvement
- Intersection Improvement - County
- Intersection Improvement - City
- Intersection Improvement - State
- Park & Ride
- Railroad Station - City
- New Roadway - County
- New Roadway - City
- Roadway Improvement - County
- Roadway Improvement - City
- Roadway Improvement - State
- Non-Motorized Improvement - County
- Non-Motorized Improvement - City
- Airport
- Railroad
- City Limits
- Urban Growth Areas

Other Projects Not Mapped

CC-NM25	Valley Trail-Leavenworth to Peshastin
L-NM1	Icicle Station Trail
LT-10	Leavenworth Bus Stops
LT-4	Expanded Weekend Transit Service
LT-1	Rural Commuter Route
WS-R1	US 2 Bypass
WS-R4	US 2 Adaptive Signal Management/ITS
WS-R6	US 2 Preliminary Design Study

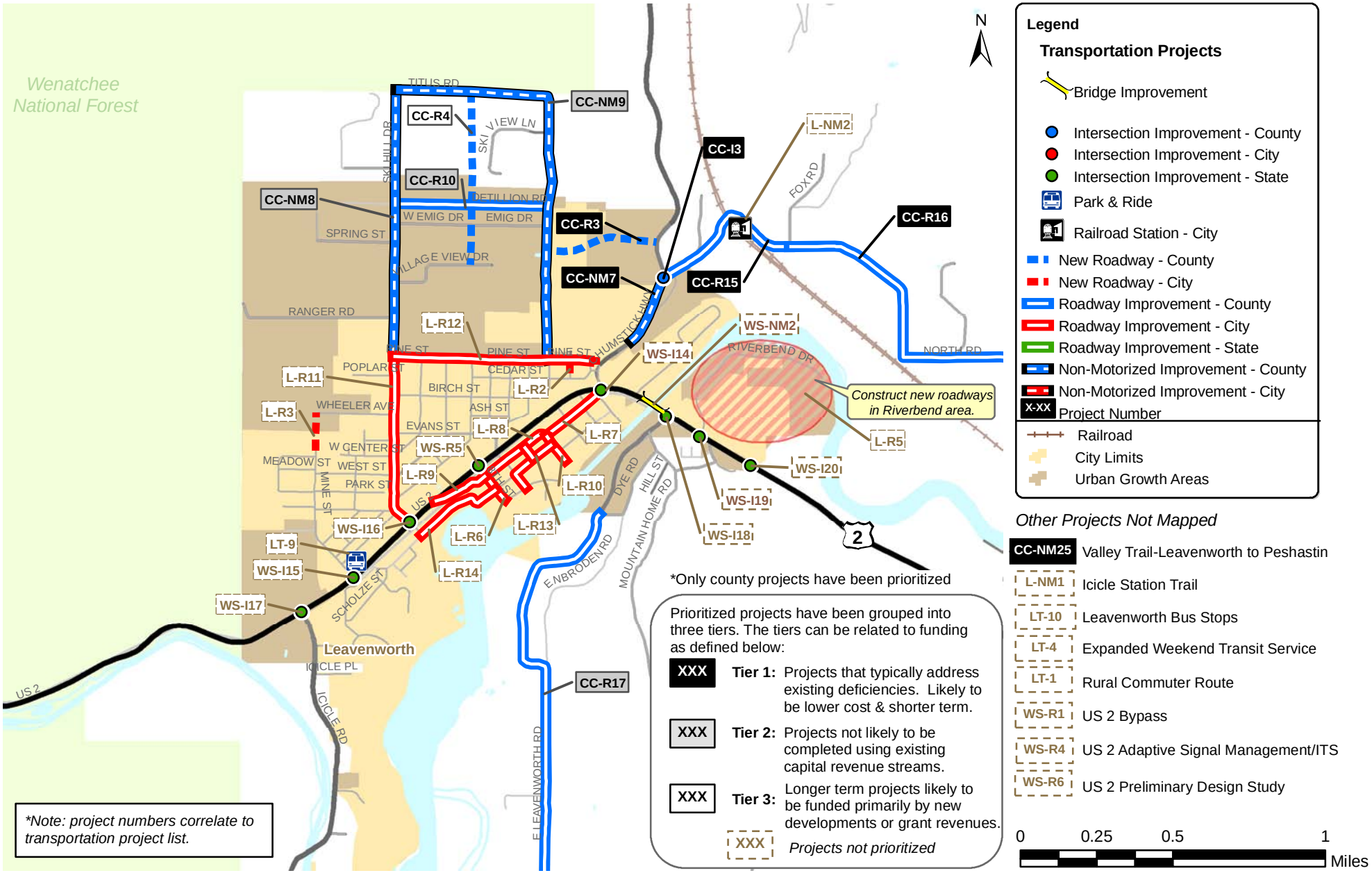
Leavenworth Subarea Transportation Improvement Projects

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIG8-10_ImpsLeavenworth.mxd

transpoGROUP

FIGURE **8-10**



City of Leavenworth Transportation Improvement Projects

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIG8-11_ImpsLeavenworth_City.mxd

transpoGROUP

FIGURE **8-11**

Table 8-9. Leavenworth Subarea Transportation Improvement Project List

Project ID	Project Title	Project Description	Cost[1, 2]	Priority Tier[2, 3]
WSDOT				
WS-R1	US 2 Bypass through Leavenworth	Construct bypass to reroute traffic away from congested business center. Investigate possible impacts to neighborhoods. Identified as a Tier III Solution in the Highways Systems Plan.	—	—
WS-R4	US 2 Signal Improvements	Adaptive signal management and ITS solutions. Identified as a Tier I Solution in the Highways Systems Plan.	—	—
WS-R5	US 2 Pedestrian Underpass	Provide a grade separated pedestrian undercrossing in the vicinity of City Hall.	—	—
WS-R6	US 2 Preliminary Design Study	Evaluate feasibility and refine the list of possible intersection improvements, including construction of roundabouts, within the City limits.	—	—
WS-I14	US 2 / Chumstick Highway	Improve intersection, including evaluation of a roundabout.	—	—
WS-I15	US 2 / Mill Street	Traffic control improvements to address future LOS deficiencies.	—	—
WS-I16	US 2 / Ski Hill Drive	Traffic control improvements to address future LOS deficiencies.	—	—
WS-I17	US 2 / Icicle Road	Traffic control and gateway improvements.	—	—
WS-I18	US 2 / E Leavenworth Road	Intersection safety and traffic control improvements. Improve sight distance by elevating intersecting segment of E. Leavenworth Road.	—	—
WS-I19	US 2 / Riverbend Drive	Improve intersection, including evaluation of a roundabout.	—	—
WS-I20	US 2 east of Riverbend Drive	New intersection and traffic control to provide access to future development in the Riverbend area.	—	—
WS-NM2	US 2 Wenatchee River Bridge	Provide wider cantilevered pathway for non-motorized users on each side.	—	—
Chelan County				
New Roadway				
CC-R3	Titus Road to Chumstick Highway Connector	New collector road between Titus Road and Chumstick Highway to provide improved access and circulation to the North Leavenworth area.	$1,960	I
CC-R4	Leavenworth UGA north-south connector	New north-south road (unnamed) between Village View Drive and Titus Loop Road.	$1,520	III
Roadway Improvement				
CC-R10	Bergstrasse/Detillion Road	Upgrade road to collector street standards between Ski Hill Drive and Titus Road.	$2,130	II
CC-R14	Eagle Creek Road	Grade, drain, widen, minor horizontal realignment, add base and top course, and pave along 1.5 mile stretch starting at Chumstick Hwy. Widening pavement from 22 ft to 26 ft.	$3,520	I
CC-R15	North Road	Reconstruct large culvert, grade, drain, add base and top course, and pave from Chumstick Highway to Fox Rd.	$3,270	I
CC-R16	North Road	Construct/widen shoulders, improve horizontal curves, signage, and safety between Fox Rd and Nibblelink Rd (north connection).	$9,800	I
CC-R17	E. Leavenworth Road	Construct/widen shoulders, improve horizontal curves, safety, and reconstruct roadway between UGA limits and Dempsey Rd.	$4,410	II
CC-R18	E. Leavenworth Road	Construct/widen shoulders and reconstruct roadway between Dempsey Rd and Icicle Rd.	$4,180	II
Intersections				
CC-I3	Chumstick Highway / North Road	Intersection safety improvements, could include signage, illumination, re-alignment, and channelization enhancements.	$280	I

Non-motorized Improvements				
CC-NM7	Chumstick Highway	Complete multi-use pathway from school between City limits and North Road.	$570	I
CC-NM8	Ski Hill Drive	Improve shoulders, illumination, signage, and provide traffic calming along Ski Hill Drive from City limits to Titus Rd.	$1,790	II
CC-NM9	Titus Road	Improve shoulders, illumination, signage, and provide traffic calming along Titus Rd from City limits to Ski Hill Dr.	$2,710	II
Trails				
CC-NM25	Valley Trail - Leavenworth to Peshastin	Identify ROW and construct trail between Leavenworth and Peshastin.	$1,460	I
City				
L-R1	Pine Street Extension	Construct a new road - connector from Fir Street to Chumstick Highway. Close the Fir/Cedar/Chumstick Highway intersection.	$810	—
L-R2	Cone Street	Construct connector from Cedar Street to Pine Street.	$420	—
L-R3	Mine Street north to Wheeler Avenue	Construct a new road - connector from Mine Street to Wheeler Avenue.	$940	—
L-R5	New streets in Riverbend Area	Construct new secondary arterial and collector streets in the Riverbend Area.	$3,450	—
L-R6	8th Street Reconstruction	Reconstruct roadway, curb replacement, pave sidewalk, illumination from Front Street to Main Street.	$680	—
L-R7	Front Street Reconstruction	Reconstruct road, sidewalks, illumination, storm sewer, watermain replacement from Division Street to 14th Street.	$2,600	—
L-R8	Front Street Reconstruction	Reconstruct roadway, curb and gutter, sidewalk, illumination from 8th Street to Division Street.	$2,480	—
L-R9	Front Street Reconstruction	US 2 at Gustav's to 8th Street - Reconstruct roadway, replace sidewalks, illumination.	$1,970	—
L-R10	Division Street Reconstruction	Reconstruct road, sidewalks, curb & gutter, street illumination from Front Street to 200' south of Commercial.	$740	—
L-R11	Ski Hill Drive Reconstruction (US 2 to Pine Street)	Repair base material and asphalt overlay. Construct missing sidewalk locations between US 2 and City limits.	$2,640	—
L-R12	Pine Street Upgrade (Ski Hill Drive to Fir Street)	Repair base material and asphalt overlay. Construct sidewalk along south side of roadway.	$3,180	—
L-R13	Commercial Street/10th Street Reconstruction	Reconstruct roadway, curb and gutter, sidewalk, illumination from 9th St to Division St and Front St to Commercial St.	$1,330	—
L-R14	Commercial Street Reconstruction	Reconstruct road, sidewalks, illumination, storm sewer, watermain replacement from 3rd Street to 8th Street.	$2,950	—
L-NM1	Icicle Station Trail	Trail connecting Leavenworth to new Amtrack station.Part of the Leavenworth to Wenatchee Trail. Includes improving underpass along North Road.	$1,330	—
L-NM2	Icicle Station	Construct new Amtrak Icicle Station along North Road.	$850	—
LINK TRANSIT				
LT-1	Rural Commuter Route to Chelan - Wenatchee and Leavenworth	Expand service	—	—
LT-4	Expanded service in Leavenworth	Weekend service identifed as a priority by the community	—	—
LT-9	Leavenworth Park & Ride	Construct additional park & ride location in Leavenworth	—	—
LT-10	Leavenworth Bus Stops	Locate and construct bus stops throughout the Leavenworth area.	—	—

1. Cost range in $1,000s of dollars (2008 $).
2. No cost or priorities developed for other agency projects.
3. See Chapter 7, Table 7-3 for definitions.

County Roadway Improvements

The general area north of the City limits and within the UGA has been targeted to accommodate a significant portion of the growth expected within the greater Leavenworth area. In order to serve the existing and future needs, transportation infrastructure improvements will be needed on existing facilities such as Ski Hill Drive and Titus Road. In addition, new and upgraded roadways are required to provide improved connectivity and access to the UGA.

A number of potential new roadways have been identified within the unincorporated area north of the City. One project is a connector between Titus Road and Chumstick Highway. The Titus Road connection has been studied by the City and County (1999 Titus Road study) for several years. The new collector street will provide improved access to the northern UGA.

A new north-south roadway connecting Titus Road with Bergstrasse/Detillion Road and Village View Drive will improve access and circulation to the area between Ski Hill Drive and Titus Road. Bergstrasse/Detillion Road will be upgraded to a collector street to provide an improved east-west link between Titus Road and Ski Hill Drive. The corridor is the logical location for an improved east-west connection because it already exists, has few direct access points to adjoining properties, and has the sufficient right-of-way necessary for urban amenities, such as sidewalks. Together, these collector streets will provide adequate circulation and access to support expected residential growth in the area.

Ski Hill Drive and Titus Road provide primary access to the northern UGA and should be upgraded with wider shoulders or a separated multi-use pathway as they are a primary pedestrian, bicycle, and cross-country skiing route for the community. Improved illumination, signage, and traffic calming features along the two corridors have been included on the project list. The long, straight corridors are conducive to high speeds, so geometric improvements should be made, such as splitter islands or reduced lane widths to promote slower speeds and reduce potential for cut-through traffic when the Titus Road connection is in place.

Other improvements to County roadways include reconstructing segments of East Leavenworth Road and improving portions of North Road to include wider shoulder and improved base and surface material. The intersection with North Road and Chumstick Highway will be upgraded with improved channelization, illumination, and signing to address safety concerns and support future growth along the North Road corridor.

The following County roadway projects within the Leavenworth area are among the highest priority projects in the County Transportation Element (Tier I projects):

- New connector between Titus Road and Chumstick Highway
- Roadway improvements on North Road
- Intersection improvements at Chumstick Highway/North Road

City Roadway Improvements

Improvements are needed along the collector and arterial roadways in the northern neighborhoods of the City. These improvements will address existing deficiencies, improve substandard roadways, and provide new collector roadways. The improvements include upgrading arterials and collectors to City standards and completing a system of collectors to enhance mobility and circulation within the northern part of the City. These projects range from extending Mine Street to Wheeler Avenue to overlaying and constructing missing sidewalk segments along Ski Hill Drive. The reconstruction of Pine Street is an important project because it is one of the only east-west routes within the northern Leavenworth area, but the pavement is in a failed state of repair. The roadway will be upgraded to secondary arterial standards, including the construction of sidewalks to provide a safe school walk route for Icicle River Middle School and Cascade High School students. Sidewalks likely can only be accommodated on the south side of

Pine Street due to environmental constraints on the north edge of the right-of-way. An extension of Pine Street to Chumstick Highway is also a project the City will work to complete. The extension would allow the City to close the Cedar Street intersection with Chumstick Highway and provide greater separation from the US 2 intersection to avoid vehicle queuing and safety issues.

The City also has plans for its transportation system in the downtown, as identified in the Downtown Master Plan. The City recently completed an upgrade to portions of the downtown street system along 9th Street and Commercial Street. The project included replacing utilities, new sidewalks, improved pedestrian crossings, on-street parking, planter strips, and a new roadway surface. The City hopes to complete seven similar projects for the remaining segments of its downtown streets. These projects include 3rd Street, 8th Street, Front Street, Division Street, and Commercial Street corridors.

The eastern portion of the City, otherwise referred to as the Riverbend area, will include new circulation roadways to support future commercial and industrial development in the City. The new circulation streets will also provide direct access to the KOA campground to avoid vehicles from using Riverbend Drive, a local neighborhood street, as the primary access. A new intersection with supporting traffic control along US 2 will provide access to the area and will need to be coordinated with construction of the circulation roadways.

Non-motorized Improvements

Greater details on planned pedestrian, bicycle, cross-country skiing, and equestrian facilities are provided in the Upper Valley Regional Trails Plan. As a separate publication, the Regional Trails Plan was developed in 2009 to directly address multiple modes of travel through all four seasons and for all types of users.

The goals for the Upper Valley Regional Trails Plan are to:

- Connect neighborhoods, residents, and visitors with area services, activity centers, attractions, and natural areas;
- Link and enhance existing and planned trails and determine the locations for new trail connections; and to
- Incorporate multiple non-motorized modes of travel, whether for recreation or commuting, through all seasons including but not limited to pedestrians, bicyclists, equestrians, and cross-country skiers.

A new trail connection between the downtown and the future Amtrak station on North Road is a high priority. The connection would likely be an asphalt trail and would use portions of an old railroad right-of-way, now owned by Chelan PUD. This trail could become a section of the proposed Valley Trail linking Leavenworth and Wenatchee. Chelan County was recently successful in obtaining federal funds to widen the railroad underpass along North Road and to support the construction of a pedestrian facility.

Much of the trail system within the public street right-of-way depends upon implementation of the projects listed in Table 8-9. The sidewalk system will largely provide the linkages to the trails within the Upper Valley area. Particular linkages of highest priority include the reconstruction of the arterial and collector streets in the northern neighborhoods and UGA. The projects along Ski Hill Drive, Titus Road, and Pine Street will provide for enhanced non-motorized facilities such as sidewalks, separated multi-use pathways, or wider shoulders. Other projects include adding missing sidewalk segments on Chumstick Highway, and new sidewalks on Bergstrasse/Detillion Road and the new collector roadways in the UGA.

US 2 acts as a pedestrian barrier separating the downtown commercial district with the neighborhoods to the north. Enhanced pedestrian crossing treatments should be considered along the corridor as part of the preliminary design study described previously. New or revised

traffic control enhancements at the intersections with Chumstick Highway, Ski Hill Drive, or Mine Street could include improved pedestrian signage, crosswalk treatments, or provide for better illumination to reduce the potential for vehicle and pedestrian collisions. A new pedestrian underpass is proposed near City Hall that would improve crossing safety for pedestrians and improve mobility for vehicles along US 2.

Overall, the Regional Trails Plan highlights the preferred non-motorized facilities and connections the City and County are planning towards. It identifies the appropriate design standards for pedestrian, bicycle, cross-country skiing, and equestrian facilities. Refer to the Regional Trails Plan for more information and detail on the projects necessary to enhance the non-motorized system within the City of Leavenworth.

The following non-motorized projects within the Leavenworth area are among the highest priority (Tier I projects):

- Sidewalks on Chumstick Highway between City limits and North Road
- Improved shoulders and traffic calming devices on Ski Hill Drive
- Valley Trail project between Leavenworth and Peshastin.

Transit Improvements

The use of transit service would likely be increased by faster and more convenient bus service between Leavenworth and Wenatchee. Route 22 currently provides commuter service. LINK Transit is studying the opportunity for developing a new and improved park-and-ride lot in Leavenworth to replace the existing facility. Several sites have been investigated near US 2 (at Chumstick Highway and near Mill Street). The creation of weekend transit service has also been identified as a priority by the community. Overall, increased service will make transit a more convenient and attractive alternative to driving alone.

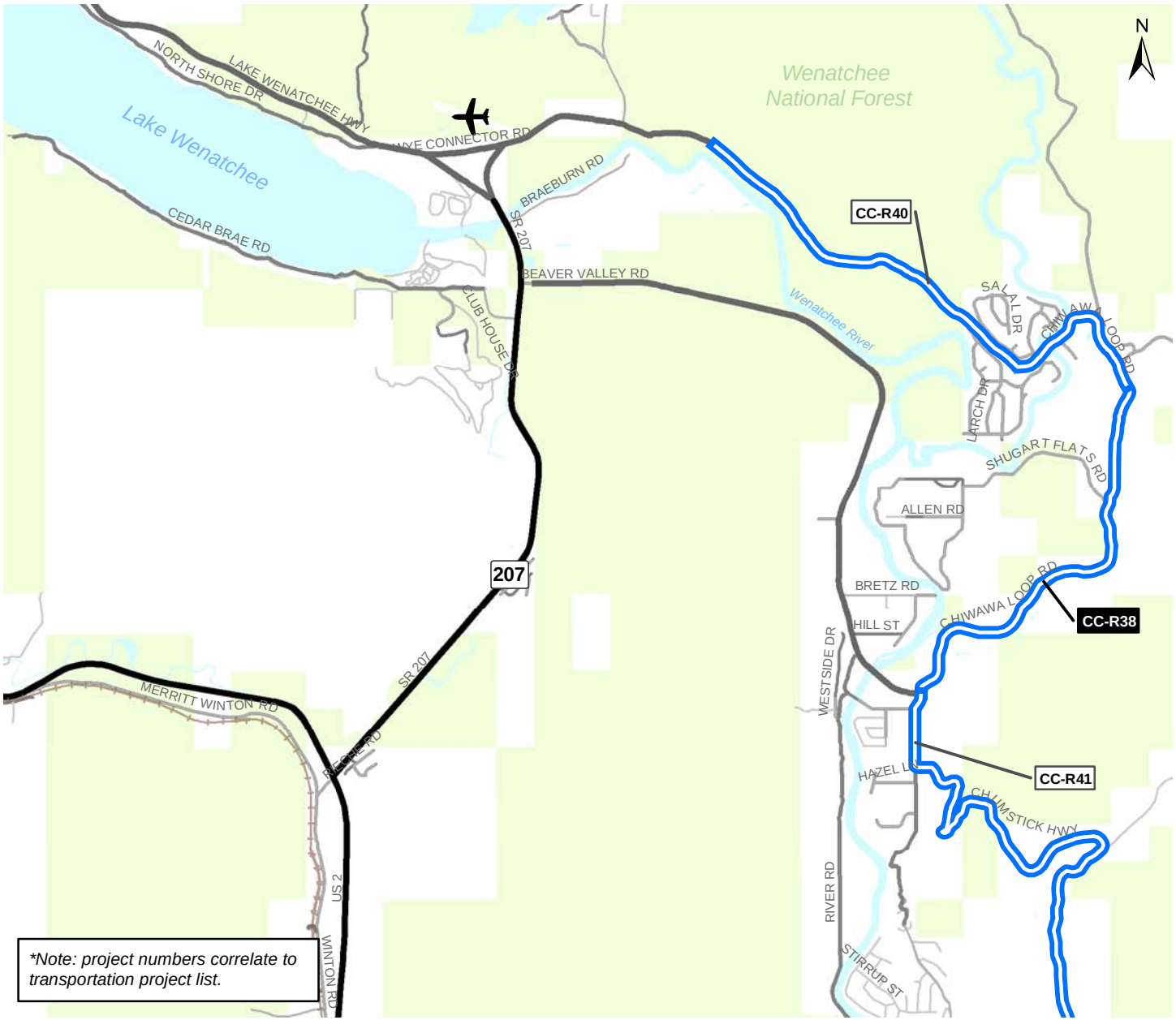
Plain/Lake Wenatchee Subarea

The main transportation issues identified for the Plain/Lake Wenatchee subarea include roadway improvements to Chumstick Highway and the Chiwawa Loop Road, as well as improving the trail system. The improvements are needed to better serve the Plain residents and tourists. The proposed improvement projects are presented in Table 8-10 and Figure 8-12.

Table 8-10. Plain/Lake Wenatchee Subarea Transportation Improvement Project List

Project ID	Project Title	Project Description	Cost[1, 2]	Priority Tier[2, 3]
Chelan County				
Roadway Improvement				
CC-R38	Chiwawa Loop II	Grade, drain, construct retaining walls, mitigate wetland impacts, add base and top course, and pave from south of Wendig Lane to Beaver Valley Road.	$3,900	I
CC-R39	Chumstick Highway	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between Spromberg Canyon Rd to Camp Road	$6,380	III
CC-R40	Chiwawa Loop III	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between south of Wendig Lane and east of Meadow Creek Rd	$5,070	III
CC-R41	Chumstick Highway	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between Camp Road and Beaver Valley Road	$10,290	III

1. Cost range in $1,000s of dollars (2008 $).
2. No cost or priorities developed for other agency projects.
3. See Chapter 7, Table 7-3 for definitions.



*Note: project numbers correlate to transportation project list.

Legend

- Roadway Improvement - County
- Airport
- Railroad
- City Limits
- Urban Growth Areas

*Only county projects have been prioritized

Prioritized projects have been grouped into three tiers. The tiers can be related to funding as defined below:

- XXX **Tier 1:** Projects that typically address existing deficiencies. Likely to be lower cost & shorter term.
- XXX **Tier 2:** Projects not likely to be completed using existing capital revenue streams.
- XXX **Tier 3:** Longer term projects likely to be funded primarily by new developments or grant revenues.
- XXX *Projects not prioritized*

0 0.5 1 2 Miles

Plain/Lake Wenatchee Transportation Improvement Projects

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\Report Figures\FIG8-12_ImpsPlain.mxd

transpoGROUP

FIGURE **8-12**

County Roadway Improvements

The specific projects identified for the Plain/Lake Wenatchee subarea focus on improving Chumstick Highway and the Chiwawa Loop Road, both major collectors in the County's functional classification system.

Chumstick Highway provides an alternate route when US 2 is closed at Tumwater Canyon. It is an important route to be able to accommodate detour traffic, including commercial vehicles on County roadways (Chumstick Highway, Beaver Valley Road) and SR 207. The roadway structure and surface on Chumstick Highway need to be improved to be able to safely accommodate the detour traffic. This would include shoulder widening and horizontal curvature improvements. The Chumstick Highway improvements could be conducted in two phases: the section between Spromberg Canyon Road and Camp Road, and the section between Camp Road and Beaver Valley Road.

The Chiwawa Loop Road improvements would be similar to those recently completed in 2008 (listed as a Tier I project in Table 8-10) and would be for the segment between south of Wendig Lane and east of Meadow Creek Road.

Non-motorized Improvements

Another issue identified by stakeholders is the need to develop the trail system in the area serving recreational purposes. A network providing eight miles of hiking trails is available in and around the Lake Wenatchee State Park. This could be expanded to offer more recreational opportunities.

Chapter 9 – Finance and Implementation Program

The transportation improvement projects and programs were identified to address existing and future transportation system needs for Chelan County. The estimated costs of these projects and programs were summarized and compared to projections of existing transportation-related revenues to assess the County's ability to implement the Transportation Element. As with most local agencies, existing transportation revenues will not allow Chelan County to fund all of its needed maintenance, operations, or capital improvements. The Transportation Element identifies other possible revenue sources to help close the funding gap. Even with additional revenues, Chelan County will not be able to fund all of the projects and programs within the 20-year horizon of the Transportation Element.

The County has also refined its traffic impact study (TIS) requirements to more fully address its development review program to help ensure that impacts of growth are mitigated. As required under the Growth Management Act (GMA), the financial and implementation program includes a process for reassessing the transportation needs and funding programs to support the planned growth.

Project and Program Costs

Projects and programs were combined into three categories as part of the development of a financial strategy for the Transportation Element. These categories are illustrated on Figure 9-1. Table 9-1 summarizes the estimated costs of these programs and projects in 2008 dollars. In addition, the County may have a cost share of larger, multi-agency regional projects that are not included in the costs of projects and programs listed in Table 9-1.

Table 9-1. Transportation Project and Program Costs 2008 to 2027

	Total Estimated Costs[1] (2008-2027)	Priority Tier[2]		
		I	II	III
Maintenance and Operations	$187 million	$187million[3]	--[3]	--[3]
Reconstruction and Non-Motorized Enhancements	$201 million	$43 million	$44 million	$114 million
New Construction or Upgraded Transportation Improvements to Serve Growth	$114 million	$21 million	$17 million	$76 million
	$502 million	**$251 million**	**$61 million**	**$190 million**

1. Costs in 2008 dollars
2. Priority Tier per ranking system (see Chapter 7)
3. Maintenance and operations costs were not assigned to the tiers, all maintenance and operations needs are assigned to high priority.

Maintenance & Operations

Types of Projects

- Paving/Chip Sealing
- Snow Plowing
- Emergency Repairs
- Bridge Repairs
- Signing/Stiping

Reconstruction of Existing Facilities/ Pedestrian & Bicycle Enhancements

Types of Projects

- Roadway Reconstruction
- Shoulder Widening
- New Trails/Sidewalks
- Safety Enhancements
- Bridge Replacement / Rehabilitation

New or Upgraded Facilities to Support New Development

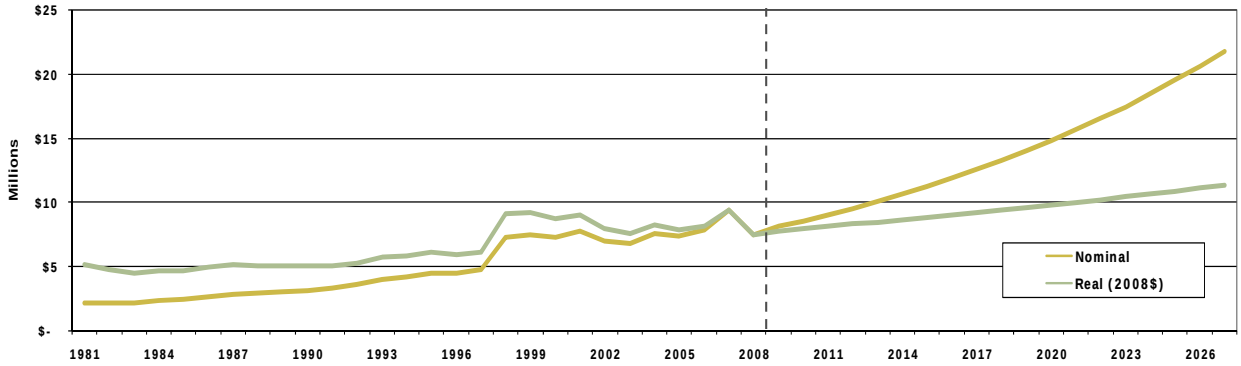
Types of Projects

- New Roadways
- Roadway Widening
- Frontage Improvements
- Traffic Control Improvements

Figure 9-1. Project Funding Categories

Maintenance and Operations Costs

The most basic funding category is maintenance and operations of the transportation system in unincorporated Chelan County. These include preserving or improving road surfacing; snow plowing; maintaining adequate signing, marking, illumination, and traffic controls; safety enhancements; and general and emergency repairs. Figure 9-2 summarizes the historical and projected costs for the County's three main expenditures for transportation maintenance and operations (maintenance, administration, and facilities construction and maintenance).



SOURCE: Chelan County Transportation Funding Report, Berk & Associates, March 19, 2009

Figure 9-2. Chelan County Historical and Projected Maintenance & Operations Costs

Cost estimates for maintenance and operations programs were derived from historical data. Since 1981, per capita maintenance costs have increased by approximately 4 percent per year. The 4 percent annual growth was assumed for the financing analysis. Because the 4 percent growth in expenditures is outpacing the 3.5 percent rate of inflation, the County has been using a higher proportion of its base transportation revenues on maintenance, as shown on Figure 9-2.

Operations and administrative costs related to the County's transportation system also have been growing at a faster rate than inflation. Operations and administrative costs are projected to grow at 4.5 percent per year based on historical data.

Based on historical trends, Chelan County will need approximately $187 million (in 2008 dollars) to maintain and operate its transportation system at recent historical levels. Funding less than that amount will require the County to reduce its level of maintenance or associated programs.

Reconstruction and Non-motorized Enhancements

Capital transportation projects were separated into improvements needed to enhance and upgrade the existing roadways even without growth and those needed to serve growth. The reconstruction and non-motorized enhancements category includes projects involving reconstructing roadways to meet County road standards and widening and upgrading roadway shoulders to improve safety and to provide for non-motorized travel. Capital projects required to address existing or forecast safety issues and replacement or rehabilitation of aging bridges also are included in this category.

The reconstruction and non-motorized enhancement projects were prioritized into three tiers, as discussed in Chapter 7. The total cost of these projects between 2008 and 2027 is $201 million (in 2008 dollars). This includes projects that are already partially funded or under construction. Approximately $43 million (21 percent) of these project costs were identified as being in the Tier 1, highest priority category. Another $44 million in costs would be needed to cover the Tier II

priority improvements. Another $114 million in reconstruction and non-motorized enhancement projects are included in the Tier III priority level.

New Construction or Upgraded Transportation Improvements to Serve Growth

The third category of projects and associated costs cover improvements that were primarily defined to support forecast growth. These include construction of new arterials or collectors, widening existing roadways to add capacity, improvements for non-motorized travel, and intersection improvements to resolve operations or level of service impacts due to new growth.

As shown on Table 9-1, growth-related improvements are estimated to cost $114 million (in 2008 dollars) through 2027. Approximately $21 million of these project costs were rated as Tier I, with an additional $17 million in Tier II. The remaining $76 million would be Tier III category, meaning they are needed improvements but not as high of a priority for County funding.

Multi-Agency Regional Improvement Projects

In addition to the costs of maintenance, operations, and capital improvements to arterials, collectors, and local roadways in the unincorporated areas, Chelan County also will be a stakeholder for implementing regional transportation improvement projects. The regional improvements may include major trails connecting various communities, improvements to the state highways, and possible mega projects such as new bridges connecting into Wenatchee, which is the commercial core of the County.

Total costs of these projects have not been estimated as part of the County's Transportation Element. Additional studies need to be completed by the Wenatchee Valley Transportation Council (WVTC) or others, to evaluate alternatives, select preferred strategies and alignments, and identify funding sources. Chelan County could help support these improvements through funding a portion of the "local match" of a grant or other elements, such as acquiring right-of-way for these regional projects.

Due to the unknown nature of the improvements or level of these costs, the County's Transportation Element does not include an estimate the County's cost share of these regional improvements. However, they must be kept in mind in the overall analyses of the funding strategies.

Transportation Revenues

Like most counties in Washington State, Chelan County primarily relies on property taxes, real estate excise taxes (REET), motor vehicle fuel taxes, and state grants for funding the maintenance, operation, and improvement of its transportation system. The County also has used federal grants and revenues from the Federal Forest Yield program. Historical data were used to project these potential baseline revenues (in 2008 dollars) from these sources through 2027. These estimates are presented below. Other potential revenue sources available to Chelan County to supplement the baseline revenue projections are also presented.

Baseline Revenue Projections

Historical financial data from Chelan County and the Washington State Department of Transportation (WSDOT) were reviewed to estimate revenues from existing revenue sources. These include:

- Property Taxes
- General Fund Revenues
- Other Local Funding
- Motor Vehicle Fuel Tax
- State Funding
- Federal Funding

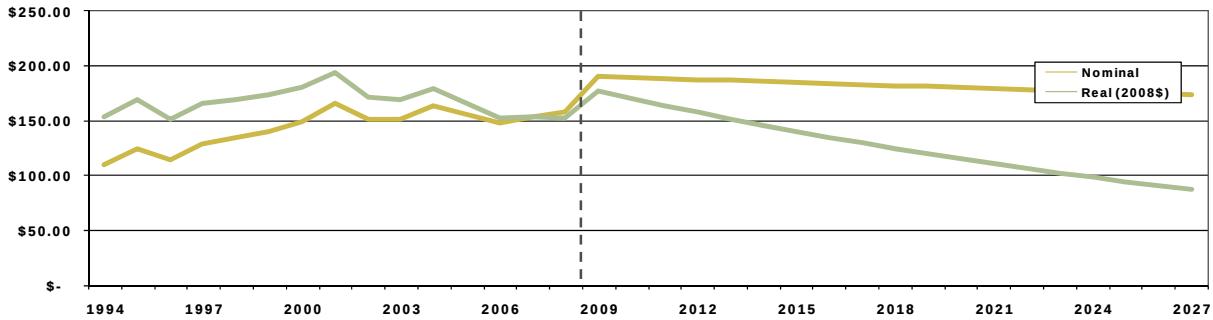
A summary of the baseline funding projections is then presented.

Property Tax Revenues

Historically, property taxes have accounted for approximately 50 percent of Chelan County transportation-related revenues. Passage of Initiative 747 restricted total Property Tax revenue increases at 1.0 percent annually, lower than the estimated 3.5 percent rate of inflation. Therefore, cities and counties are seeing a decline in total Property Tax purchasing power. Up to 2008, the County had not used its entire legal limit for property tax assessments, leaving it with some "banked capacity." For its 2009 budget, the County Commissioners elected to use the banked capacity and levy the entire legal limit. While the County has the discretion to collect less than the legal limit, this analysis assumes that the County will continue to collect the full legal limit of the Road Levy because of unmet needs for maintenance and operations.

The amount of Property Tax collected through the Road Levy in Chelan County has been declining on a per capita basis at approximately 0.2 percent annually. Because of I-747, the total increase in revenues should not exceed 1.0 percent annually. In order to maintain this 1.0 percent increase as population increases, the per capita decline assumed in the future is 0.5 percent.

Figure 9-3 shows per capita Property Tax for transportation in both nominal and "real" inflation-adjusted dollars. Historical data is shown to the left of the dotted line, and future projections to the right. The decline in per capita revenues since the institution of I-747 in 2001 is evident particularly in the inflation-adjusted numbers shown by the "real" revenue line.



SOURCE: Chelan County Transportation Funding Report, Berk & Associates, March 19, 2009

Figure 9-3. Chelan County Per Capita Baseline Projections - Property Tax for Transportation

General Fund Revenues

Historically the County's General Fund contributions to transportation capital have been sporadic. There has been no contribution since 2001. No General Fund contributions toward transportation maintenance, operations, or capital improvements are assumed for the future. The County may choose to contribute General Funds for particular projects, but given the recent history there is no basis to assume a reliable stream of General Fund dollars for funding transportation improvements.

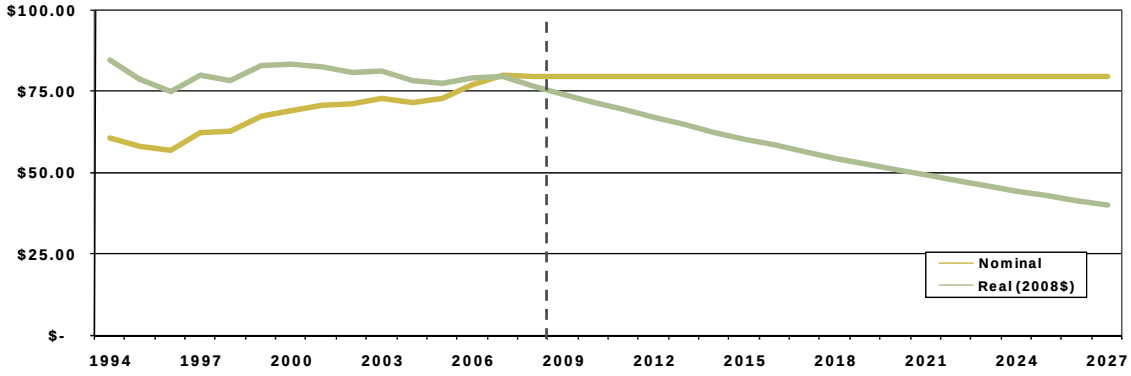
Other Local Funding

Other local funding for transportation include REET funds, Leasehold Excise Taxes, Road Permits, payments in lieu of taxes, and others. Since 2005, the County has made a standing contribution of REET funds toward transportation improvements. A $400,000 annual commitment has been assumed into the future. Because these funds are not increasing to account for population growth or inflation, “real” per capita dollars will decline over time.

The remaining other funds in this category were approximately $2.33 per capita in 2007 and $2.40 in 2008. It is assumed that this per capita level of funding will continue into the future, increasing at the rate of inflation.

Motor Vehicle Fuel Tax

Approximately one-quarter of the County’s transportation revenues come from state fuel taxes. This is the second largest component of the County’s transportation revenues, behind property taxes. Although historical per capita gas tax dollars have been increasing in nominal numbers, when adjusted for inflation, per capita revenues have been declining over time. In the more recent history, this trend is becoming more pronounced due to large increases in the price of gasoline (not withstanding the decline in fuel prices in the second half of 2008). Taking into account the recent shift in behavior, this analysis assumes that per capita spending will remain constant on a nominal basis, therefore decreasing in “real” dollars at the rate of inflation annually. Figure 9-4 shows the historical and projected data in “real” and nominal dollars.



SOURCE: Chelan County Transportation Funding Report, Berk & Associates, March 19, 2009

Figure 9-4. Chelan County Per Capita Baseline Projections – State Fuel Tax

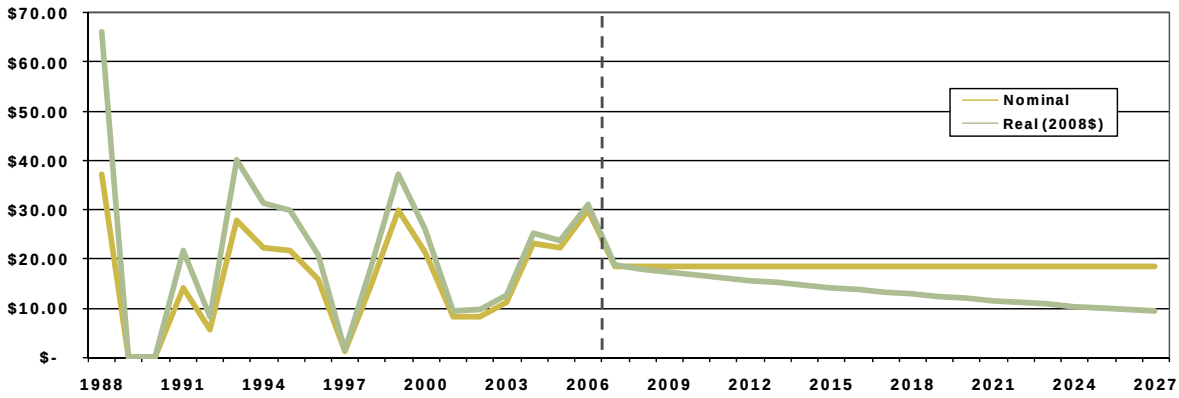
State Funds

Chelan County receives grants for specific transportation projects. It also uses revenues from the Reforestation Harvest Tax for transportation purposes.

State grants are primarily funded through the state Motor Vehicle Fuel Tax. As discussed above, revenues generated from the purchase of gasoline are declining over time, and are expected to do so more dramatically in the near future, leading to fewer available grant dollars. In addition, with the passage of Initiative 747, all state jurisdictions are seeing a decline in a significant source of general revenue. This is causing a higher demand for grant funding and greater competition between jurisdictions.

Since 1988, Chelan County has averaged $18.62 per capita in state funds after adjusting for inflation. It was assumed that the County will continue to receive this level of funding on a nominal basis, leading to a decline in "real" revenues at the rate of inflation.

Historical funding and future projections are shown in Figure 9-5 for state grants. Because these dollars are largely project-based, the projections shown here are likely to be higher than actual in some years, and lower in others.



SOURCE: Chelan County Transportation Funding Report, Berk & Associates, March 19, 2009

Figure 9-5. Chelan County Per Capita Baseline Projections – State Funds

Federal Funds

Federal funds include both federal grant revenues and the Federal Forest Yield regularly received by Chelan County. Federal funds have represented 15 to 20 percent of Chelan County's transportation revenues. Historically, the Federal Forest Yield program has been funded through Federal timber sales. Due to decreases in the volume of annual timber sales, revenue from this program has decreased. In 2008, funding for this program was reauthorized through Federal fiscal year 2011, at which time the program would end. The Secure Rural Schools and Community Self-Determination Act of 2000, of which the Forest Yield Program is a part of, is currently being lobbied in Congress for reauthorization. Given this uncertainty, this analysis assumes 100 percent of estimated funding for 2008 with a 10 percent reduction for the following four years. A final program year of 2011 is assumed, with no funding beyond 2011.

The federal grant portion of these funds has been treated similar to state grants. The average per capita grant revenues received by Chelan County have been $29.68 annually, when adjusted for inflation. This value per capita is assumed to continue in nominal dollars into the future, causing "real" grant revenues to decline at the rate of inflation.

Figure 9-6 shows the per capita funds expected from the combination of the Federal Forest Yield program (through 2012) and federal grant dollars.

SOURCE: Chelan County Transportation Funding Report, Berk & Associates, March 19, 2009

Figure 9-6. Chelan County Per Capita Baseline Projections – Federal Funds

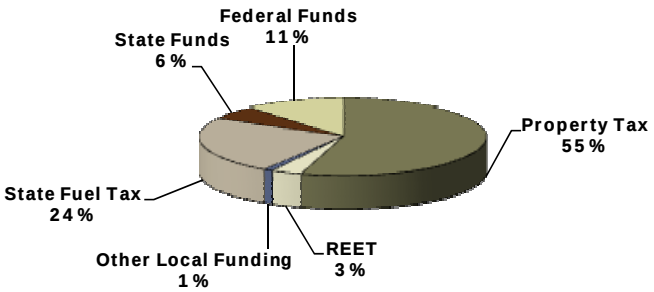
Total Baseline Projections

Table 9-2 shows the total baseline revenue projections over the 20-year study period in five-year increments. These revenues are displayed in inflation-adjusted 2008 dollars. A total of $171 million in revenues is projected from the baseline revenue sources. The "real" revenues decrease in value over time. Approximately $35 million are projected for the 5-year period between 2023 and 2027. This is 35 percent lower than the revenues between 2008 and 2012. Figure 9-7 illustrates the expected distribution of the total projected revenues over the 20-year study period.

Table 9-2. Chelan County Baseline Transportation Revenue Summary[1]

Baseline	Total 2008-2012	Total 2013-2017	Total 2018-2022	Total 2023-2027	Total 2008-2027
Estimated Future Revenues					
Property Tax	$27,259,254	$25,034,259	$22,145,149	$19,489,460	**$94,028,121**
REET	$1,869,232	$1,573,843	$1,325,134	$1,115,727	**$5,883,935**
Other Local Funding	$384,359	$414,064	$446,064	$480,538	**$1,725,026**
State Fuel Tax	$11,852,481	$10,750,725	$9,751,383	$8,844,935	**$41,199,524**
State Funds	$2,782,071	$2,523,461	$2,288,891	$2,076,125	**$9,670,547**
Federal Funds	$8,624,408	$3,673,661	$3,332,173	$3,022,428	**$18,652,671**
Total Estimated Available Revenues	**$52,771,805**	**$43,970,013**	**$39,288,793**	**$35,129,214**	**$171,159,825**

SOURCE: Chelan County Transportation Funding Report, Berk & Associates, March 19, 2009 Draft
1. All costs in 2008 dollars, totals may not match due to rounding.



SOURCE: Chelan County Transportation Funding Report, Berk & Associates, March 19, 2009

Figure 9-7. Chelan County Projected Transportation Revenue Distribution

As shown in Table 9-2, County transportation revenues are projected to have significantly lower purchasing power in terms of real dollars in future years. This represents the limits on property tax revenues due to Initiative 747, the likely loss of Federal Forest Yield funding after 2012, and reduction in Fuel Tax revenues, which are directly distributed to Chelan County or used to fund state programs.

When comparing total available revenues for transportation capital and maintenance with expected costs over the 20-year study period, revenues fall short of paying for just the estimated maintenance costs before even considering capital project costs. This is consistent with the financial analyses showing that the main revenues used for transportation are increasing at a relatively slow rate, while costs are increasing more quickly over time. Although spending is currently balanced with revenues, the increase in costs of transportation system needs begins to outpace the increase in revenues in the very near term.

As discussed earlier, the total estimated transportation revenues for the study period are approximately $171 million. These revenues are the total available for all capital and maintenance needs for the County for the next 20 years. However, some funds are not available for maintenance expenses, including most grant funds, REET funds, and matching funds for grants. The estimated $30 million in grants must, therefore, not be counted towards maintenance costs, as well as $6 million in REET funds and an estimated minimum of $6 million in matching funds for grants. This leaves $131 million available for maintenance compared to an estimated cost of $187 million for the study period, resulting in an estimated $56 million shortfall to cover estimated maintenance and operations needs during the 20-year life of the plan. This results in $40 million available for capital projects, and those dollars are heavily dependent upon grant awards.

Table 9-3 illustrates the shortfall in maintenance and operations of $56 million over the life of the plan. As noted above, preserving the existing transportation system is the highest priority for Chelan County. Capital costs would exceed existing revenues by $275 million over the 20-year period. The available $40 million for capital projects would not fully cover the $64 million in Tier I priority projects. It also would be $47 million short of covering the $87 million cost of the Tier I and Tier II reconstruction and non-motorized enhancement projects exclusive of any growth-related transportation improvements.

Table 9-3. Comparison of Transportation Revenues and Costs from 2008 to 2027

	Total Estimated Revenues[1] (2008-2027)	Total Estimated Costs[1] (2008-2027)	Difference[1]
Maintenance & Operations	$131 million	$187 million	($56 million)
Capital Improvements[2]	$40 million	$315 million	($275 million)
Total Transportation Program	**$171 million**	**$502 million**	**($331 million)**

1. All costs and revenues in 2008 dollars. (xxx) means negative value.
2. Includes reconstruction and non-motorized enhancements and growth-related new construction and upgrade projects.

Other Potential Revenue Sources

The following outlines possible funding sources to help close the maintenance and capital funding shortfalls. Chelan County is faced with a projected funding shortfall over the planning horizon of its Transportation Element. The County explored strategies to best match its diverse transportation funding needs. In order to address the funding imbalance, the County may consider policy changes that would increase future revenues and available funding. The potential funding sources are described below.

Transportation Benefit District (Unincorporated Chelan County)

Description. A Transportation Benefit District (TBD) may be established for the construction, maintenance, preservation, and operation of improvements to state, regional, or local agency roadways, high capacity transportation systems, public transit, and transportation management programs. State law sets requirements for selecting improvements, including the need for the projects that are "necessitated by existing or reasonably foreseeable congestion levels." The projects must be contained in the transportation plan of the State or the regional transportation planning organization (RTPO). The following types of fees may be imposed:

- **Sales and Use Tax**. Up to 0.2 percent with voter approval for up to 10 years – unless reauthorized by voters.
- **Motor Vehicle License Renewal Fee**. Up to $100 annually, with voter approval – a jurisdiction may impose a $20 fee without voter approval, but by adoption through the Board of County Commissioners (BoCC).
- **Excess Property Tax Levies**. One-year maintenance and operation with voter approval or multi-year for general obligation bonds.
- **Transportation impact fees on commercial and industrial buildings.** (residential buildings are excluded). Commercial or industrial projects would receive a credit if a transportation impact had already been imposed in the County.
- **Vehicle Tolls.** Tolls can be established and collected for improvement projects within the TBD.
- **Latecomer Agreements.** Latecomers Agreements allow property owners who have paid for capital improvements to recover a portion of the costs from other property owners in the area who later develop property that will benefit from those improvements.

Potential Revenue Impacts. The following illustrates potential levels of revenues that could be generated under the TBD funding options.

- A voter approved 0.2 percent sale tax increase could generate approximately $700,000 per year. Example: A purchase of a television costing $1,000 would be assessed an additional $2 in sales tax under this scenario.
- A BoCC enacted $20 vehicle license renewal fee could generate approximately $0.6 million per year. A voter approved $100 fee could generate approximately $3 million per year.
- A voter approved excess levy could generate funds dedicated to the repayment of general obligation bonds. These proposals to voters are typically presented in terms of a total dollar amount and the levy rate is determined by the assessed value in the district. Example: On a $30 million voted excess levy, a single family home valued at $250,000 would likely pay an additional $80 per year in property taxes to retire the bonds.

Transportation Impact Fees

Description. Transportation impact fees (TIF) may be charged to help fund specific transportation projects shown to be reasonably related to new development. The impact fees "shall only be used to fund system improvements" that are reasonably related to and benefit the new development. Impact fees may not be used to correct existing deficiencies. The imposing jurisdiction must also contribute funds to the included projects, which by statute cannot be funded 100 percent through impact fees.

Potential Revenue Impacts. The goal of calculating transportation impact fees is to create fees based on new development's expected impact on the transportation system and the need for improvements. Generally, this is done by basing the fees on the number of vehicle trips a development is expected to generate and the proportional cost of the transportation improvement projects (alternatively can be charged on a per unit basis) needed to serve growth. Since these fees are contingent on impact, they can vary by jurisdiction or subarea within the County. Example: The impact fees must be calculated based on project costs and growth. As an example, for every $1,000 in the impact fee rate, $8 million in revenue could be generated over the next 20 years, based on the estimated 8,000 new residential units expected to be built in unincorporated Chelan County during that time horizon. Commercial development also would pay the fee based on their relative traffic impacts and benefit of the TIF improvement projects which would increase the potential revenues.

Local Improvement Districts

Description. Any jurisdiction may form a local improvement district (LID) and levy a special assessment on properties within the LID that would benefit from the improvement. These improvements include streets, parking facilities, park boulevards, and other public places along with local transportation systems, such as buses and railways, and the facilities necessitated by these systems. A county may levy a tax on the property within an area that will benefit from a specific capital project.

Potential Revenue Impacts. A LID's property assessment is determined during its formation and is assessed relative to the benefits the users derive from the improvements. Example: A LID in a commercial area funding right-of-way improvements might charge on the basis of commercial building square footage. If the LID funded $1 million of improvements and there were 100,000 square feet of commercial square footage in the district, a property owner with 10,000 square feet of shop space might be assessed an additional $100,000 ($10/sq ft). Typically, the LID payments are paid over an extended number of years.

Road Levy

Description. Every county in Washington State is eligible to collect a property tax road levy for the construction and maintenance of county roads and bridges. The levy may not exceed $2.25 per every $1,000 of assessed value. The County's levy rate in 2007 was $1.48. An increase of the levy that would exceed the legal 101 percent limit (called a levy lift), would need to be passed by voters. However, counties may have "banked capacity" in their levy that they can use at discretion of the Commissioners (without a public vote) and are required to use before they may pursue a voter approved levy lift. Banked capacity refers to the difference between the County's legal road levy limit and the current amount being used. As noted above, Chelan County chose to use its full legal limit for Property Taxes starting in 2009 by applying its banked capacity.

Potential Revenue Impacts. A levy lid lift of the County's road levy from the current $1.48 would require voter approval. Example: A hypothetical $0.50 increase to the County's road levy could generate approximately $3.5 million a year. A single family home valued at $250,000 would likely pay an additional $125 a year in property taxes.

Bonds Supported with a Levy Lid Lift

Description. The Board of County Commissioners may choose to pass one or more councilmanic bonds up to their legal limit, which can provide funding through debt, but does not increase revenue. The County may also go to the public for a voter-approved bond with a levy lid lift. With voter approval, the County can increase funding through debt and also gives authority to increase property tax rates to pay the debt service.

Potential Revenue Impacts. A voter approved levy lid lift designated to pay back general obligation bond proceeds could generate additional funds. Example: On a $30 million voted excess levy backed by a levy lid lift, a single family home valued at $250,000 would likely pay an additional $80 a year in property taxes to retire the bonds.

Planned Action Ordinance

Description. Planned Action Ordinances (PAO) are a project specific action under the State Environmental Protection Act (SEPA) in which an Environmental Impact Statement (EIS) designates, by ordinance, those types of projects to be considered Planned Actions – spelling out mitigation measures that will be applied. This type of action is appropriate for small areas expecting a specific type of development. PAOs are restricted to urban growth areas per state law.

Potential Revenue Impacts. A feature of a PAO is the level of flexibility and specificity that it may proscribe as mitigation for all development within the Planned Action area. Both existing deficiencies and growth-related improvements can be included to the degree they mitigate transportation impacts of new development.

Local Gas Tax

Description. State law allows counties to levy local option gas taxes of up to 10 percent of the current state gas tax. This funding option would require voter approval. Revenues from this tax can be used for "highway purposes" including the construction, maintenance, and operation of city streets, county roads, and state highways; operation of ferries; and related activities. The tax must be imposed countywide (there is no city levy). Revenues are distributed back to county and cities contained within the county, levying the tax on a weighted per capita basis (1.5 for population in unincorporated areas; 1.0 for population in incorporated areas).

Potential Revenue Impacts. The current state motor vehicle fuel tax is 37.5 cents per gallon. A 10 percent voted increase would add an additional 3.75 cents to this total for a combined tax of 41.25 cents. Estimating the revenue impacts is difficult since the amount of gas sold is not readily available. Using the 2007-2009 biennium budget estimate of $2.5 billion as an estimate (approximately $1.2 billion a year), the per capita statewide fuel tax revenue estimate in 2008 is $19 per person. From the County's perspective, since the distribution of the tax is weighted depending where people live, a 10 percent increase in the motor vehicle fuel tax could generate in the range of $850,000 in additional revenue a year.

Other Development Mitigation

Description. All new development in the County must comply with state and local development regulations and requirements. These include GMA concurrency requirements, the State Environmental Policy Act (SEPA), and road standards/frontage improvements. These elements are project specific and are reviewed as part of each development application.

Potential Revenue Impacts. Funding or construction of improvements through development mitigation is dependent on the location, timing, and type/size of new developments. Therefore, a specific estimate cannot be made.

Latecomers Agreements

Description. Latecomers Agreements allow property owners who have paid for capital improvements to recover a portion of the costs from other property owners in the area who later develop property that will benefit from those improvements. The period of collection may not exceed 15 years and is based on a pro-rata share of the construction and contract administration costs of the particular project. The city or county must outline an area subject to the charges by determining which properties would require similar improvements. The improvement must be required for property development by city or county ordinance in order for the reimbursements to be assessed.

Potential Revenue Impacts. Latecomers agreements are typically done on a pro-rata share of the project cost plus administrative fees. Example: A one-block-long sidewalk costs a builder $45,000 to construct. Adjacent developments that benefit from the sidewalk contract to reimburse the original owner $15,000 to cover the cost of the improvement based on their relative benefit.

Funding Strategy

Chelan County has identified a multifaceted strategy for funding its highest priority transportation needs. The strategy builds on its current revenue base supplemented with potential new resources. The financing strategy is guided by the following principles:

- New development should fund its share of expanding/upgrading transportation facilities in unincorporated areas of Chelan County.
- Use broad County funding sources, such as the Road Levy, to fund maintenance, operations, and highest priority capital improvement projects to preserve the existing transportation system and resolve existing deficiencies.
- Reserve regional funding sources to partner with other agencies to address transportation facilities of countywide or regional significance.

The funding strategy includes the following four primary elements:

- Funding from New Development

- Sustaining the County's Road Levy
- Pursuing Grants and Other Funding
- Funding Regional Transportation Improvements

In addition, a reassessment strategy is included to help balance the County's transportation financing with its level of service standards and land use plan. Maintaining this balance is a basic tenet of the GMA.

Funding from New Development

Growth within the County results in a need for additional transportation improvements, as previously discussed. Chelan County has primarily required new developments to mitigate their potential transportation impacts based on its review under the State Environmental Policy Act (SEPA), its road standards under Title 15 Development Standards requirements, and GMA concurrency. Due to the County's prior review processes and standards, these programs have not fully addressed the transportation impacts of new development.

The County has, or is modifying, its development review processes, level of service standards/concurrency program, and its road standards to better address the adequacy of the transportation system to serve growth. In addition, the funding strategy includes a GMA-based transportation impact fee (TIF) to help fund growth-related roadway and intersection improvements.

Development Review Process

Chelan County is required by state law to review development proposals for environmental impacts under SEPA. Under GMA, Chelan County must prohibit new development unless its transportation system is adequate to support the growth; this is implemented through GMA's concurrency regulations. The County also has adopted Development Standards (Title 15) to guide the construction or upgrading of roadways, intersections, and other related facilities. These processes all support the development and improvement of the County's transportation system. Figure 9-8 shows the general flow of these processes and how they work together to mitigate the transportation impacts of new development. The County's transportation review program is documented in its Transportation Impact Study (TIS) Guidelines.

Concurrency Review. As the first step in the review process, a proposed development would be evaluated based on the County's updated transportation concurrency program. The concurrency program is directly linked to the County's updated level of service standards which are based on roadway conditions instead of the level of congestion at intersections under its prior Transportation Element. The road conditions rating considers functional classification, traffic volumes, pavement width, pavement condition, roadway grades, and availability of pedestrian facilities. The revised concurrency program will be implemented as a development regulation and adopted through ordinance. The concurrency review would evaluate each road segment impacted by a minimum number of trips generated by each new development.

If each County roadway segment impacted by the proposed development meets the minimum road condition rating, then the development meets concurrency and would move to a full application for review under SEPA and other regulations. If concurrency is not met for all impacted roadways, the development could mitigate its impacts by funding and constructing improvements along the impacted segments that did not meet standards. Alternatively, the application could be modified to reduce its impact to use alternative routes to pass the concurrency evaluation.

If concurrency is not met through mitigation or modification of the application, then the development would be denied until the County or another party (such as a different developer)

resolve the road condition deficiency. While denial of the development does not help improve the transportation system, it would reduce the rate of the degradation of the system, especially in corridors that are not priorities for County funding.

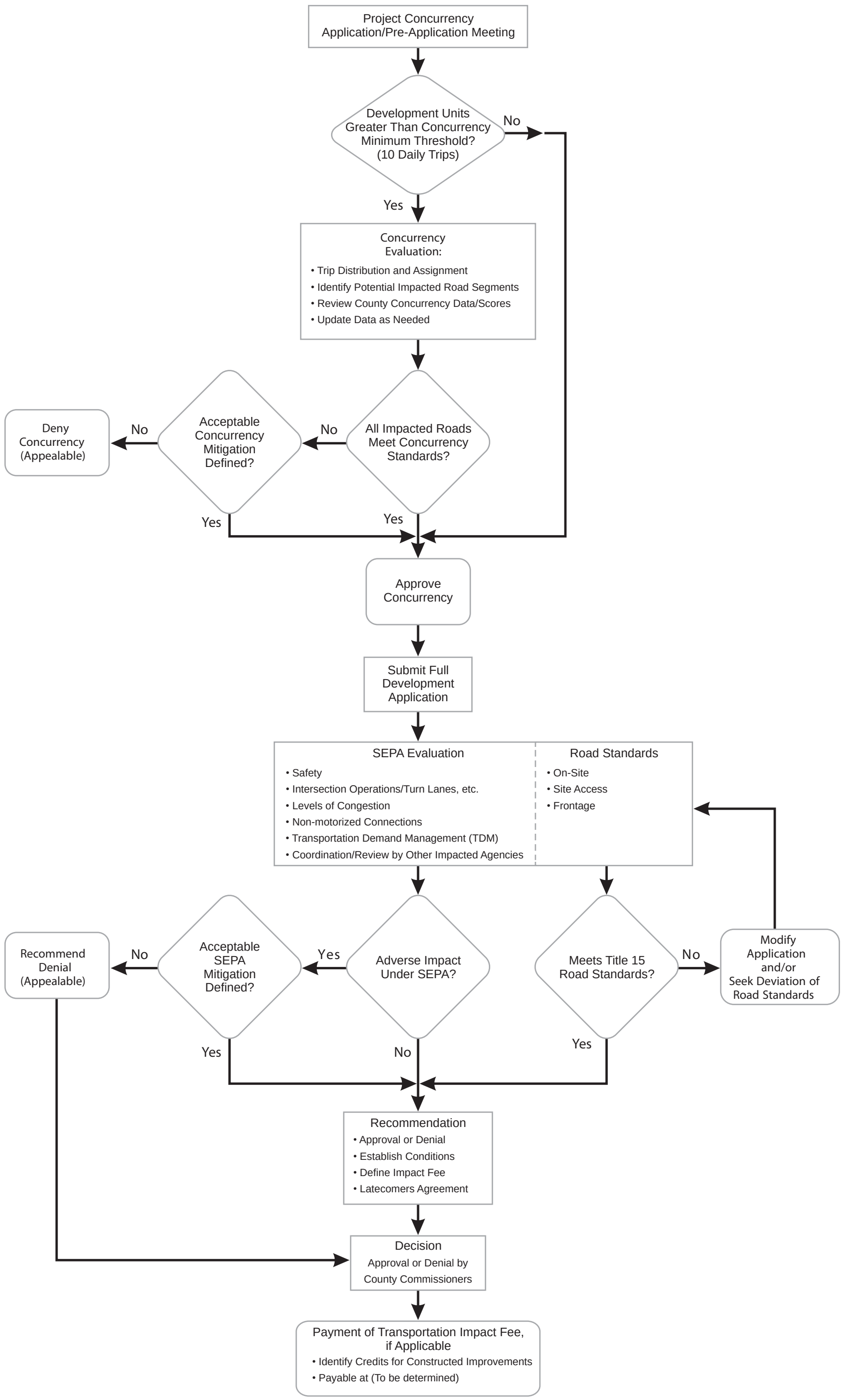
SEPA Review. Chelan County will continue to use SEPA to review the impacts of new development on roadways and intersections. As a minimum, the SEPA review would be used to evaluate impacts on:

- Safety, such as horizontal curvature issues, sight distance, non-motorized, and other
- Intersection operations, level of service, and queue impacts
- Roadway congestion
- Transit and Non-motorized transportation

SEPA review is based on the development project having an adverse impact. Assessment of transportation impacts under SEPA depends on the conditions for each transportation facility or service serving a new development. If adverse impacts are identified, the County can condition the development to provide mitigation to offset or reduce its impacts. This mitigation would help improve the transportation system, at least to the extent of mitigating project impacts.

As discussed previously, a SEPA review also can be through a Planned Action Ordinance (PAO). Planned Actions can be used to address both existing deficiencies and growth-related improvements based on their need to mitigate adverse impacts of new development. PAOs are currently limited under state law for use in urban growth areas (UGAs). Chelan County may consider using a PAO to more systematically address development impacts in urban growth areas such as Peshastin, Chelan, or Manson. Except for the limitation under state law, PAOs also could be a good tool for mitigating transportation impacts in identified Local Areas of More Intensive Rural Development (LAMIRDs) such as Malaga. PAOs also could be an appropriate tool for other rural areas of the County. Chelan County should work with its state legislators, other counties, and the development community to remove or at least modify this restriction on PAOs.

Development Standards (Title 15). Chelan County has adopted road classification and design standards. They identify requirements for design speed, right-of-way width, pavement width, grade, non-motorized facilities, parking and other roadway design features. New developments are required to comply with the road standards for all on-site roadways, adjacent street frontage, and access roadways. The standards cover both public and private roadways. The County has specific review and approval processes if variances to the standards are requested by the developer.



Transportation Development Review and Mitigation Flow Chart

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\Chelan_Flow_Chart_rev.cdr

transpoGROUP

FIGURE 9-8

Latecomers Agreements. Mitigation under concurrency, SEPA, or the Title 15 Development Standards may entail constructing or improving roadways or intersections that future development in the County will benefit from. To help balance the costs with the benefits of the improvements, Chelan County provides for Latecomer Agreements. As discussed previously, Latecomer Agreements allow property owners to recover a portion of their costs of constructing capital improvements from other future developments that benefit from the improvements. The Latecomers Agreements are set up for specific improvements and would calculate a share of the construction costs based on the relative benefit of the improvement to each development. Contract administration costs of the agreement also can be included. A maximum period of 15 years can be established for the Latecomers Agreement.

Transportation Impact Fees

To address the broader system transportation impacts of new growth, Chelan County also will pursue development and implementation of a transportation impact fee (TIF) program. The TIF would need to be implemented as a development regulation adopted by ordinance. The TIF would be the final step of the developer mitigation as shown on Figure 9-8.

The GMA allows agencies planning under the Act to develop and implement a TIF program to help fund transportation projects needed to accommodate the growth. State Law (Revised Code of Washington [RCW] Chapter 82.02) sets forth that the impact fees:

- Shall only be imposed for system improvements that are reasonably related to the new development;
- Shall not exceed a proportional share of the costs that are reasonably related to the new development;
- Shall be used for system improvements that will reasonably benefit the new development; and
- May only be collected and spent on public facilities that meet the requirements of RCW 82.02 and are addressed by the capital facilities plan (CFP) element of the Comprehensive Plan.

TIFs can only be used to help fund the improvements needed to serve new growth; GMA specifically notes that the fees cannot be used to address existing deficiencies. The County could include costs of prior capital projects to the extent that new growth will benefit from the improvements.

A draft TIF program was prepared to estimate potential revenues for implementing the Transportation Element. The list of capital projects in Appendix B were reviewed to determine if they could be included in a TIF under the GMA requirements. The potential projects for the draft TIF program are identified in Table 9-4. The County could opt to not include all of the TIF-eligible improvements in the final program.

The costs of the TIF-eligible projects were adjusted to account for the costs of resolving existing deficiencies, which cannot be funded with the TIF. The costs of the TIF-eligible projects were adjusted to account for previous or currently committed funding. The County could further reduce the estimated eligible costs as a matter of policy as part of the final TIF program.

Table 9-4. Transportation Impact Fee Program Eligible Projects

MAP ID[1]	Project Title	Priority Tier[2]	Cost[3] ($1,000s)	Impact Fee Cost[3] ($1,000s)	TSA[4]
CC-R1	Corridor Study – Alternative route between Manson and Chelan	I	$300	$270	3
CC-R2	Alternative route between Manson and Chelan	III	$49,280	$14,784	3
CC-R3	Titus Road to Chumstick Highway Connector	I	$1,960	$1,764	2
CC-R9	North-south connection using new US 2 underpass – Blewett Cut-off Road	II	$2,620	$2,358	2
CC-R10	Bergtstrasse Road/Detillion Road connector	II	$2,130	$1,491	2
CC-R11	Union Valley Road	II	$2,360	$1,652	3
CC-R12	Boyd Road	I	$3,030	$2,121	3
CC-R16	North Road	I	$9,800	$6,860	2
CC-R17	E. Leavenworth Road	II	$4,410	$3,087	2
CC-R18	E. Leavenworth Road	II	$4,180	$2,926	2
CC-R20	Dixie Lane	I	$2,440	$1,708	1
CC-R21	West Malaga Road	I	$2,740	$1,918	1
CC-R26	Ford Street	I	$1,380	$966	3
CC-R27	Ivan Morse Road	II	$1,570	$785	3
CC-R28	Wine Sap Road	II	$1,330	$665	3
CC-R29	Totem Pole Road	III	$5,180	$3,626	3
CC-R31	Sleep Hollow Road/E Richard Road – Improve route between Monitor and Wenatchee	III	$8,780	$6,146	2
CC-R33	North Road	I	$2,520	$2,016	2
CC-R34	Beecher Hill Road	II	$1,110	$888	2
CC-R35	Rollercoaster Road	II	$2,130	$1,704	2
CC-R42	Knowles Road	I	$2,920	$2,336	1
CC-R43	American Fruit Road	II	$3,600	$2,880	1
CC-R44	Easy Street	I	$9,490	$7,592	1
CC-R45	School Street	I	$1,660	$1,328	1
CC-R46	Rolling Hills Road	II	$1,830	$1,281	1
CC-R47	Lower Sunnyslope Road	II	$1,810	$1,267	1
CC-R48	Number One Canyon Road	II	$940	$752	1
CC-R49	Squilchuck Road	III	$3,360	$2,688	1
CC-R51	McKittrick Street	II	$930	$744	1
CC-R52	Walnut Street	III	$3,900	$3,120	1
CC-I3	Chumstick Highway/North Road	I	$280	$140	2
CC-I4	W. Malaga Rd/McEldowney Rd	I	$190	$95	1
CC-I5	Washington St/Banks Ave	I	$280	$140	3
CC-I6	Green Avenue/Roses Avenue	II	$240	$120	3

CC-I9	Main Street/Peshastin Rd	I	$280	$196	2
CC-I10	School Street/Easy Street	II	$1,010	$909	1
CC-I11	Knowles Road/School Street	I	$240	$120	1
CC-I12	Easy Street/Peters Street	II	$1,010	$909	1
CC-I13	Easy Street/Penny Road	I	$570	$513	1
CC-I15	Easy Street/Crestview Road	I	$240	$216	1
CC-NM8	Ski Hill Drive	II	$1,720	$1,204	2
CC-NM9	Titus Road	II	$2,710	$1,897	2
	Total		**$148,460**	**$88,182**	

1. See Tables 8-1 through 8-10 and Appendix B for description of projects.
2. See Table 7-3 for description of priority tiers.
3. Planning level cost estimates in $1,000s of dollars (2008 $)
4. Preliminary Transportation Service Area (TSA) concept per Figure 9-9.

The Transportation Element includes over 100 capital improvement projects costing $315 million in 2008 dollars. Of these projects, 42 projects with a total estimated cost of almost $150 million (in 2008 dollars) were identified as being at least partially eligible for a TIF program (see Table 9-4). After adjusting the costs to only include growth-related elements, a maximum of $88.2 million (in 2008 dollars) in project costs could be included in the TIF program, as shown in Table 9-4. This would result in a Chelan County share of over $60 million (in 2008 dollars) to fully fund the TIF-eligible projects.

The TIF-eligible projects and costs were allocated to three service areas comprised of the transportation study subareas which are similar to the County Commissioner Districts (see Figure 9-9). The TIF-eligible project costs in each district were divided by the estimated number of new growth daily vehicle trips generated in each district to derive a cost per new daily growth vehicle trip. Under this approach new growth in each service area only pays for growth-related transportation improvements in that service area. In reality, growth trips from each district could benefit from TIF improvements in other districts. However, this would likely be relatively minor due to the reliance on state highways for longer, intra-county travel.

If these projects and costs are included in an adopted TIF ordinance and the growth projections are realized, Chelan County could generate up to the $88.2 million (in 2008 dollars) over the life of the Transportation Element. The project cost estimates would increase over time requiring adjustments through annual cost escalations. Chelan County also should update the cost estimates if actual project costs increase at a rate above the rate in the annual cost escalator.

Table 9-5 summarizes the calculation of potential TIF rates per new daily growth trip for each transportation service area (TSA) assuming inclusion of all eligible project costs. As shown on Table 9-5, the fees range from $409 to $813 per new daily vehicle trip. TSA 2 has the highest cost rate at $813 per new daily vehicle trip and TSA 1 has the lowest rate. TSA 1 has the lowest overall costs because it has the highest level of traffic growth, while having approximately the same amount of capital costs of the other two areas. Both TSA 2 and 3 have the highest potential transportation impact fee rates because growth in spread among various communities, creating more substantial infrastructure needs and costs to serve less growth.

The County may consider including only the higher priority improvements in its TIF program. This would reduce the resulting impact fees. This would also reduce the County's $60 million share of TIF-related project costs which may not be the highest priority for use of limited County funds.

If only the Tier 1 TIF-eligible projects were included in the program, the County could collect over $30 million (in 2008 dollars) during the life of the plan. This assumes that the forecast growth

occurs as projected for developing the Transportation Element. Under this scenario the TIF rates per new daily vehicle trip would be $213 in TSA 1, $273 in TSA 2 and $94 in TSA 3.

If the County included all Tier 1 and Tier II TIF-eligible projects in the impact fee program, it could potentially generate almost $58 million in revenues (in 2008 dollars). The resulting fees per new daily vehicle trip for a Tier I plus Tier II impact fee program would be $331 for TSA 1, $660 for TSA 2, and $181 for TSA 3.

The County can select which improvement projects to include based on priorities and location of growth. It also will need to identify the level of County funding it can direct to TIF projects versus other transportation priorities.

Table 9-5. Resulting Potential Transportation Impact Fee Rates

	Countywide	TSA 1[2] (Central)	TSA 2 (West)	TSA 3 (North)
TIF Total Project Costs[1]	$149 million	$39 million	$45 million	$65 million
Total Potential TIF Cost Share[1]	$88.2 million	$30.4 million	$32.7 million	$25.1 million
Estimated New Daily Growth Trips	151,500	74,200	40,200	37,100
TIF Cost per New Daily Growth Trip[3]	$582	$409	$813	$677

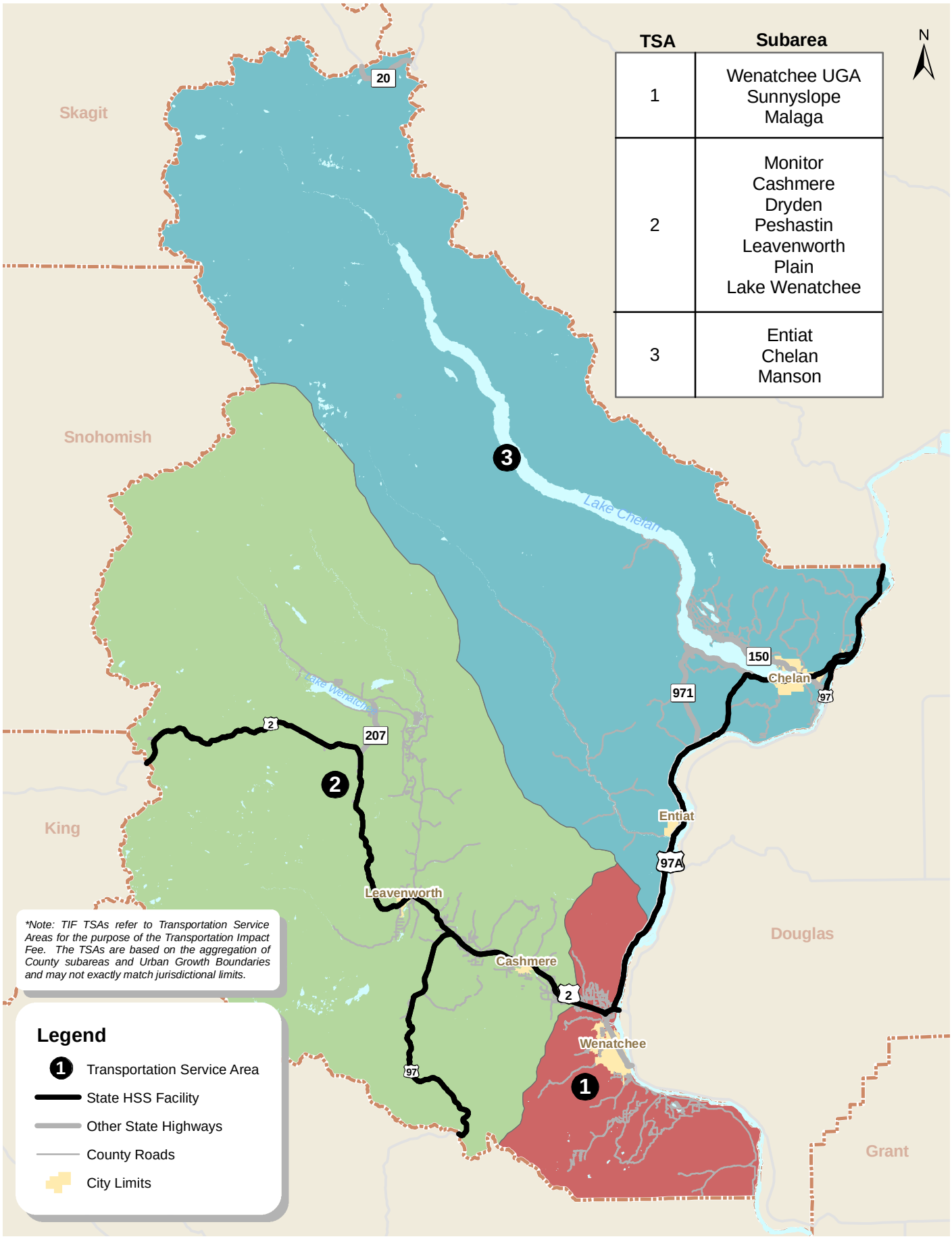
1. Costs in 2008 dollars
2. TSA = Transportation Service Area
3. Calculations not exact due to rounding

The cost per new daily growth trip would be converted to a cost per unit of new development for each TSA. This would be developed based on trip generation rates as compiled in the latest edition of *Trip Generation*, Institute of Transportation Engineers (ITE), 7th Edition, 2003. Adjustments would be made to account for “pass-by” trips and relative trip length. (Pass-by trips are trips that are already on the adjacent roadway system and make an intermediate stop. For example, a trip from work to home with a stop at a grocery store.) This would provide the County a relatively simple tool for implementing the TIF. It also would allow developers to estimate their potential TIF requirements prior to application. As required under RCW 82.02, the TIF ordinance must provide for consideration of additional studies or data provided by the development applicant.

The TIF program and ordinance also must allow developers to receive credits against the TIF if they are required to construct all or a portion of a TIF project as a condition of development (e.g. through SEPA, concurrency, or road standards). Costs for dedication of right-of-way included in the TIF costs also would be eligible for credits.

The County can allow for exemptions to the TIF for low-income housing or other development projects that serve a broad public purpose. These could include schools, parks, or County or other government facilities. The County would need to provide the funding, with non-TIF monies, to offset the fees for any exemptions.

Chelan County also can enter into Interlocal Agreements with other agencies to share impact fees. This could be a good strategy for the Chelan and Mason areas with the City of Chelan. It also could be appropriate with the City of Wenatchee or Leavenworth. Through an Interlocal Agreement, key system improvements within a City could be added to the County’s TIF program and resulting rates. The County would then pass the portion of the fee associated with the City improvements to the City. The City also would collect fees from developments under its jurisdiction for system improvements in the unincorporated areas of Chelan County. This would help fund key improvements serving the UGAs concurrent with the development.



Potential Transportation Impact Fee Service Areas

Chelan County Transportation Element

M:\07\07376 Chelan County Transportation Plan\Graphics\GIS\MXD\TIF Service Areas.mxd

FIGURE **9-9**

Sustaining the County's Road Levy

Counties are dependent on the Road Levy to fund their transportation needs, and unlike other general service providers, cannot rely on growth in other revenue sources to offset declines. Counties generally do not have statutory authority to levy new taxes. And, unlike special service districts, counties have a much more complex relationship with their constituencies.

The value of the Road Levy for the County is unmatched by any other revenue source. Since the passage of Initiative 747, the County has seen the real per-capita value of the Road Levy decline at a rate of 3.2 percent annually. From a fiscal sustainability perspective, the County cannot allow the largest component of their transportation funding to decline in value relative to the rate of growth of their basic transportation needs. The County has a strong, if not difficult, argument to make to its citizens that they need to restore the value of the Road Levy to levels that will sustain their base transportation needs. Alternatively, the County could reduce levels of services, especially in maintenance and operations programs. However, this approach could result in a more significant funding issue in the future because more expensive capital improvements would be needed to fix failed roadways. The Road Levy can be addressed through two mechanisms:

- In the short-term, using the "banked capacity" in the Road Levy to increase transportation funding. In late 2008, the County Commissioners adopted policies to use the approximately $1.1 million in banked capacity. This will help address the short-term funding needs. The additional increase in Road Levy funding has been incorporated into the assumptions in developing the baseline revenue projections.
- In the long-term, the County will need to secure a levy lid lift, or a series of lifts, with majority approval from voters in the County. The amount of the levy lift will need to be sized to the amount of need and the ability to obtain voter approval. The County may choose either temporary or permanent levy lid lifts; however, given the ongoing needs, a voted permanent lift would be the preferable mechanism (voted on by unincorporated residents).

The County should fund the additional preservation, maintenance, and operation needs by making the Road Levy a sustainable revenue source. The Road Levy also can be used to leverage grants and other local funding to maximize its value. The Road Levy may also need to support additional transportation needs outside of maintenance and operations to meet its other obligations (e.g. its share of regional projects, its share of impact fee projects, or the local matching funds for grants).

The Road Levy may not exceed $2.25 per every $1,000 of assessed value. The County's levy rate in 2007 was $1.48 and declined to $1.27 in 2008. An increase of the real per-capita value of the Road Levy at a rate of only 2 percent could generate an additional $20 million over the planning period (2008 dollars). Under this scenario, the total levy would grow at a rate matching general inflation (3.5 percent). As noted previously, a funding gap of $56 million is anticipated for maintenance and operations over the 20 year life of the plan. The County would likely need to consider raising the levy to a level to meet its funding needs or choose not to fund all of its transportation needs. In order to close the projected maintenance and operations funding gap, the Road Levy would need to grow at an approximate annual rate of 4.5 percent through levy lid lifts over the planning horizon.

Pursuing Grants and Other Funding

As noted previously, the County receives state and federal grants to help implement its transportation improvements. These grants are becoming more competitive because most agencies are facing funding issues, gas tax revenues used to fund the grants are declining, and project costs are increasing at a rate faster than inflation. The County will need to continue to pursue traditional transportation related grants through the Transportation Improvement Board

(TIB), County Road Administration Board (CRAB), and Federal Grant programs administered by WSDOT. These grants can be used to fund preservation, non-motorized facilities, intersection, and roadway projects. Grant programs specific to regional trail projects also should be pursued with state, regional and other local agencies.

In addition, the County will need to pursue grants for other types of projects and programs that can partially support transportation improvements. These could include Federal Emergency Management Agency (FEMA) grants related to flood control or economic development grants such as the Local Infrastructure Financing Tool (LIFT) administered through the Washington State Department of Trade and Economic Development (CTED).

Typically, the County will need to provide local matching funds to receive the grants. The need for these matching funds further supports the strategy for a Road Levy lift. Chelan County can also apply for low interest loans through the Public Works Trust Fund (PWTF). While not a source of new funding, the loans can help advance high priority projects. Depending on the interest rate, the loans may help reduce the total project costs by completing projects prior to inflationary increases in construction costs. Similarly to the PWTF, Chelan County could choose to bond for some transportation projects. Bonds do not generate new revenues by themselves but also can be used to advance priority projects.

Local Improvement Districts (LIDs) or Road Improvement Districts (RIDs) can be established to cover improvements in specific areas. LIDs must be used to fund improvements that directly benefit nearby property owners. They can be created by local governments or they can be initiated by property owners in the benefit area. Voter approval is NOT required, but the LID could be challenged by property owners. RIDs are similar to LIDs, except they are specifically limited to road improvements in unincorporated areas. The County would initiate any RID funding program. Property owners that will benefit from the improvements would be assessed a special benefit assessment based on proportionate levels determined during the formation of the districts. This special benefit assessment would typically be paid annually by the property owner for a time period established during the formation of the district. The County would have discretion in its financial contribution to the overall project costs of the district.

Funding Regional Transportation Improvements

The Transportation Element identifies several potential regional transportation improvements. These improvements would provide benefits to residents, property owners, businesses, and tourists in unincorporated Chelan County and its cities, and in adjacent Douglas County. These projects include regional trails, such as the Valley Trail between Wenatchee and Leavenworth. Other regional improvements along the state highways and potential new bridges/corridors to enhance access/egress to the City of Wenatchee could be included, beyond those specifically incorporated in the Transportation Element of the Chelan County Comprehensive Plan.

In an effort to create a new revenue source suitable to funding new transportation facilities, the County may wish to create a Transportation Benefit District (TBD). A TBD may be established for the construction, operation, or maintenance improvements to County roadways. The TBD may be used for the reconstruction and upgrade of existing facilities, pedestrian and bicycle enhancements, or other regionally significant projects included in the RTPO transportation plan.

While the County may create the TBD for just the unincorporated portions of the County, it may be beneficial for Chelan County to partner with the local incorporated jurisdictions through interlocal agreements on project funding. This may be desirable on these accounts:

- The County is increasingly home to regional tourist activities centered in Leavenworth, Wenatchee, and Chelan. These areas generate large volumes of taxable retail sales – sales that represent the spending of many individuals not living in Chelan County, but

nonetheless whose activities strain the County's transportation network. Tapping this out-of-county revenue source will help offset their impacts.

- The County's role as a local and regional service provider for transportation facilities supports these areas and commerce that takes place there.

Regardless of whether a countywide TBD is feasible in the short-term, the County should pursue (at a minimum) a strategy to implement a TBD for the unincorporated areas. It also should work with other agencies to explore and possibly implement a multiagency TBD. The County should seek to create a TBD to fund a share of regional improvements, including regionally significant pedestrian and bicycle enhancements. While the TBD allows for an array of funding options, including a property tax levy, it is suggested that the County TBD consider some combination of the following types of fees:

- **Sales and Use Tax.** Up to 0.2 percent with voter approval for up to 10 years – unless reauthorized by voters. A voter approved 0.2 percent sales tax increase could generate approximately $700,000 per year for the unincorporated areas. Assuming a 2 percent rate of growth in the value of taxable retail sales collected, the 0.2 percent sales tax could generate an additional $8.6 million over the planning period (in 2008 dollars). This number grows to $37 million if the entire County (incorporated and unincorporated areas) is included in the TBD.
- **Motor Vehicle License Renewal Fee.** Up to $100 annually, with voter approval – a jurisdiction may impose a $20 fee without voter approval. A County Commission enacted $20 vehicle license renewal fee could generate an additional $8 million over the planning period (in 2008 dollars). This number grows to $18 million if the entire County is included in the TBD with a $20 fee. These revenue figures would be larger if the County pursued the levy of higher fees – up to $100 (with the required public vote).

The TBD could help fund anywhere from $8 million ($20 fee in unincorporated areas) to $140 million depending on the combination and magnitude of funding options pursued (Countywide $100 fee and 0.2 percent sales tax) during the 20-year life of the plan.

Current state law restricts use of TBDs to transportation projects or programs that are regionally significant. As noted in the project list, many of the County's needs are on roadways serving more rural areas, some of which may not be considered regionally significant. To provide more flexibility for use of TBDs, the County should consider working with other counties, cities, and other stakeholders to revise the allowed uses of TBD funding.

Financing Summary and Reassessment Strategy

Overall the County is not likely to be able to fully fund the identified transportation projects and programs. This section summarizes potential revenue generation versus project costs. It also provides a reassessment strategy to help maintain a viable transportation program to address the County's existing and future needs.

Finance Summary

Table 9-6 compares the range of potential revenues generated over the 20-year life of the Transportation Element with project and program costs. The revenues build from the $156 million in existing sources (including use of the previously "banked capacity" in the County Road Levy as enacted in 2008). As previously noted these revenues would fall well short of the estimated 20-year costs of transportation improvements and programs.

Table 9-6. Financing Summary

	Projected Revenues (2008 to 2027)[1, 8]	
	Low Range	**High Range**
Existing Programs[2]	$171,200,000	$171,200,000
Development Review Funding[3]	-	-
Transportation Impact Fee[4]	$30,300,000	$88,200,000
Road Levy Lift[5]	$0	$56,000,000
Transportation Benefit District[6]	$8,000,000	$48,600,000
Total Estimated Revenues	**$209,500,000**	**$364,000,000**
Projected Costs[7]	$251,000,000	$502,000,000
Difference (Revenue less Costs)	**($41,500,000)**	**($138,000,000)**

1. All costs and revenues in 2008 dollars.
2. Based on forecast of existing revenue programs per Table 9-2.
3. Development review funding including concurrency and SEPA mitigation and road standards depends on location and timing of new developments; therefore, it cannot be accurately estimated. A small portion of the development review mitigation will probably be for improvements not included in the program or project costs.
4. Minimum impact fee revenues based on only including Tier I projects; maximum is based on all projects. Assumes $10 million County match for the Tier 1 projects and $60 million for all projects.
5. Minimum amount of Road Levy Lift reflects no lift in the road levy "maximum" amount based on a 4.5 percent increase over 2009 levels for life of plan.
6. Minimum value for TBD is based on $20 license fee for unincorporated areas; maximum is based on $100 license fee plus 0.2 percent sales tax applied to unincorporated area.
7. From Table 9-1. Minimum includes Tier I projects; maximum also includes all project costs. Does not include costs of regional improvements likely to be funded with the use of a TBD.
8. Does not assume significant revenues through expanded grants or other funding programs.

One of the most significant new or expanded revenue sources will be a lift in the Road Levy. The lift could generate up to $56 million in additional revenues beyond the recent decision to use the prior "banked capacity." No additional Road Levy funding would occur under the low range, which already assumes continued use of the full levy rate enacted for 2009. The high end assumes growth of the Road Levy at an annual rate of approximately 4.5 percent over the planning horizon, compared to the original. It should be noted that future Commissioners could roll back the Road Levy rate which would reduce the revenues available for the transportation system improvements.

Enacting a transportation impact fee (TIF) could generate $30 to $88 million in revenues. The County will need to be able to fund their share of these improvements which would likely come from the Road Levy lift. An initial TIF program limited to the highest priority projects may be a reasonable approach to best assure that the County can meet its obligations.

A Transportation Benefit District (TBD) would likely focus on regional roadway or trail projects. The County would have a share of these projects. Depending on the funding sources selected, and approval by voters, the TBD could generate nearly $50 million. This level of funding should not be counted on. Instead, a lower funding of $8 million to $20 million may be reasonable for Chelan County, especially if a TBD is developed with other agencies to help fund the large regional projects.

As shown in Table 9-6, the funding program does not specifically account for other developer mitigation (beyond the potential TIF). Much of the funding through developer mitigation or road standards would occur on roadways not included in the plan's project list. While some developer improvements would directly address the plan's projects, the overall share of the costs would be relatively minor compared to the projected deficits.

Additional grant funding also has not been estimated. The funding of existing or new grant programs in the future is uncertain and therefore, the financing strategy does not assume additional funding from grants or local improvement districts.

Overall, the County could fund much of its highest priorities including maintenance and operations and the highest priority Tier I projects with the addition of the banked capacity in its Road Levy, a limited TIF program, and a potential TBD to help fund regional projects. The County should consider a larger, permanent lift in the Road Levy to fund more of its needs, including potential expansion of the TIF program to include more projects. County funding toward regional projects would likely be limited, unless a TBD or major grants are secured.

Reassessment Strategy

The financing strategy is based on the ability of the County to expand funding from its existing revenue sources and generate additional revenues from new funding sources. Some of these efforts will require specific action by the County Commissioners, such as its decision in late 2008 to use the “banked capacity” in the Road Levy and the adoption of new concurrency and transportation impact fee programs as proposed in this Transportation Element. Other strategies, such as an additional Road Levy lift and use of some funding mechanisms for a TBD will require voter approval. These requirements will affect the actual level of funding and its timing.

Due to the uncertainties in funding and the magnitude of the potential deficit, Chelan County is committed to reassessing its transportation needs and funding each year as part of the development of its Six-Year Transportation Improvement Program (TIP). This will allow the County to match available funding with its highest priority improvements and programs. The reassessment strategy also includes a periodic review of its land use plans, level of service standards, and funding options to ensure they support one another and ensure that concurrency requirements are met. The County will consider the following principles in its transportation funding programs:

- As part of the development of the annual Six-Year Transportation Improvement Program, the County will balance improvement costs with available revenues;
- Review roadway designs to determine whether costs can be reduced through reasonable changes in scope or deviations from design standards;
- Fund improvements or require developer improvements as they become necessary to maintain the County’s roadway condition level of service standards to meet concurrency;
- Work to adopt a Transportation Impact Fee program;
- Review transportation funding strategy periodically to see if the transportation impact fees should be revised to account for updates to the capital improvement project list and revised project cost estimates;
- Assure that developer contributions adequately address their impacts and benefits;
- Coordinate and partner with WSDOT and local agencies to vigorously pursue a full range of grants from state and federal agencies to fund regional transportation improvements;
- Work with local agencies to establish interlocal agreements for impact fees or City TBDs to fund transportation improvements in UGAs;
- If the actions above are not sufficient, the County could consider changes in its level of service standards and/or possibly limit the rate or location of growth in unincorporated Chelan County as part of future updates of its Comprehensive Plan; and
- Acknowledge that some lower priority projects may be delayed or deleted from the program.

ECONOMIC ELEMENT

I. INTRODUCTION

The Economic Element is an optional element in the comprehensive plan. The county recognizes the importance of economic development in maintaining the stability of the local economy and quality of life. Industries in Chelan County serve diverse markets and needs that include local, regional, state, national and international markets. The economy of Chelan and Douglas Counties and the cities located within each jurisdiction's boundaries are closely tied together. Economic development efforts that would focus solely on one jurisdiction are neither realistic nor as beneficial as a coordinated regional approach to economic development efforts. Public agencies in Chelan and Douglas counties are increasingly moving towards a coordination of resources and planning efforts to achieve mutual ends, such as the Metropolitan Planning Organization for Chelan and Douglas counties.

Agriculture, services, retail trade, government, and manufacturing are the top five employment sectors within Chelan County. Agriculture is currently the largest employer within the county. Changes in the agricultural industry require that Chelan County respond with effective economic development efforts in a timely manner. The consequences of not effectively responding to the economic challenges facing the county could have far reaching effects on the quality of life currently enjoyed by county residents.

The purpose of the Economic Element is to set goals and establish policies that encourage and support effective economic development efforts and promote economic vitality for the future of Chelan County.

Development of this element was guided in particular by the following GMA planning goal: encourage economic development throughout the state that is consistent with adopted comprehensive plans, promote economic 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.

This goal, taken in the context of the totality of the fourteen GMA planning goals led to the development of the county-wide planning policies that provided specific guidance to the goals and policies developed in this element. The Economic Element is a result of a culmination of work efforts by 7 sub-area citizen advisory committees, the Chelan County Port District, Quest for Economic Development, an economic technical advisory group, the Chelan County Planning Commission, the Board of Chelan County Commissioners, and review and input by agencies and the public. This element contains general information about the local and regional economy, and goals and policies to guide and promote economic development and diversification.

II. GENERAL ECONOMIC AND INCOME PROFILE:

A. INCOME

TABLE 1 MEDIAN HOUSEHOLD INCOME

Median Household Income: 1989 to 1999, (In dollars)

	1989	1999 (Preliminary)
Chelan County	24,312	33,960
Douglas County	25,434	34,146
Washington State	31,183	47,897

Source: Washington State Office of Financial Management

The median household income measures the point at which half of all households have more income and half have less. The U.S. Census Bureau tracks income by family, household, and per capita. A household is an occupied housing unit. Family income includes only those households that are considered families (householder and one or more other persons related to the householder by birth, marriage or adoption.) Since not all households contain families, the household income is more representative of the actual community income.

According to the Washington State Office of Financial Management, the preliminary estimate for the median household income for Chelan County in 1999 is $33,960. This is significantly less than the preliminary estimate for the state median household income in 1999 of $47,897 but is similar to Douglas County's 1999 preliminary median household income estimate of $34,146.

TABLE 2 INCOME AND POVERTY ESTIMATES

Model – Based Income and Poverty Estimates for Chelan County:

Population as of July 1996

Statistic	Number		Percent	
	Estimate	90% Confidence Interval	Estimate	90% Confidence Interval
People of all ages in poverty	8,444	6,732 to 10,157	14.2	11.3 to 17.0
People under age 18 in poverty	3,144	2,434 to 3,853	19.2	14.8 to 23.5
Related children, age 5-17, in families in poverty	1,835	1,399 to 2,271	15.8	12.0 to 19.5

Source: U.S. Census Bureau

Persons below poverty level is a factor prepared by the U.S. Census Bureau using the poverty threshold established by the Federal Office of Management and Budget. The most recent accurate data for the poverty level is provided in the 1990 Census. Unfortunately at the date of development of this economic element, the 1990 Census data was 10 years old and the 2000 Census information was not available. To bridge this gap, the U.S. Census Bureau has developed model based income and poverty estimates for Chelan County as of July 1996. These estimates provide a 90%

confidence interval that the poverty estimates percentages fall within a noted range. The estimate is the midpoint between the confidence interval range.

In 1996, it was estimated that 14.2% of the total population of Chelan County and 19.2 % of the persons under the age of 18 fell below the poverty level. Similar model estimates were also conducted for Douglas County and Washington State. These estimates concluded that 10.2 percent of the total population in Douglas County and 10.8 percent of the total population for Washington State fell below the poverty level. Said estimates also found that 13.9 percent of persons under the age of 18 in Douglas County and 15.1 percent of persons under the age of 18 in Washington State fell below the poverty level. Review of these estimates indicates a higher percentage of total persons and persons under the age of 18 to be under the poverty level in Chelan County in comparison to Douglas County and Washington State.

INCOME LEVEL DESCRIPTION

For many federal and state assistance programs eligibility is based on incomes. For most programs, agencies are encouraged to serve "very low income" households as the highest priority; "low income" households as the second priority; and "moderate income" households as the last priority. The following table defines very low, low, and moderate income levels as they relate to median household income.

TABLE 3

Income Level	Description
Very Low Income	Up to 50% of Median Household Income
Low Income	Up to 80% of Median Household Income
Moderate Income	Up to 120% of Median Household Income

In 1990, 25% of all households in Chelan County were in the very low income level and 17% of all households were in the low income level. (Source: 1990 U.S. Census)

B. COST OF LIVING INDEX FOR SELECTED CITIES

Data collected in the Wenatchee area related to the cost of living can be found in the American Chamber of Commerce Researcher's Association Cost of Living Index. This index provides a reasonably accurate measure of living cost differences among the metropolitan and non-metropolitan area that participate for the quarter. The index measures relative price levels for consumer goods and services in those participating areas, it does not measure inflation of price changes over time. Below are index numbers for the Washington State areas that participated as well as selected other areas that may be of interest for the fourth quarter of 1999 reporting period. (Source, Quest for Economic Development)

The cost of living index numbers for the Wenatchee, WA Non-Metro area are significantly lower than the metropolitan statistical areas and primary metropolitan statistical areas listed in Table 4 in Eastern and Western Washington, and nationally; with the exception of the Richland, Kennewick-Pasco, WA MSA, which ranks similarly.

TABLE 4

Washington State Selected Cities		Other Areas	
MSA/PMSA & STATE	100% COMPOSITE INDEX	MSA/PMSA & STATE	100% COMPOSITE INDEX
Bellingham, WA MSA*	107.8	Portland-Vancouver, OR-WA	111.7
Richland-Kennewick-Pasco, WA MSA*	99.5	Corvallis, OR MSA*	110.4
Seattle-Bellevue-Everett, WA PMSA**	Did not participate	Lincoln County OR Non-metro Area	105.7
Tacoma, WA PMSA**	104.1	Sacramento, CA PMSA**	109
Yakima, WA MSA*	107.8	Riverside-San Bernardino, CA	116.4
Wenatchee, WA Non-metro Area	99.3	New York, NY PMSA**	240.1
Spokane, WA MSA*	104	Denver, CO PMSA**	110.3
Olympia, WA PMSA**	106.4	San Diego, CA PMSA**	126.7

Source: American Chamber of Commerce Researcher's Association Cost of Living Index; *MSA: Metropolitan Statistical Area; **PMSA: Primary Metropolitan Statistical Area

C. EDUCATION

TABLE 5 EDUCATIONAL ATTAINMENT

	Chelan County	Douglas County	Washington State
Percent persons 25 years and over who are high school graduates, 1990	74%	75%	83%
Percent persons 25 years and over who are college graduates, 1990	16%	13%	22%

Source: 1990 U.S. Census

As of 1990, 74% of people 25 years and over in Chelan County were high school graduates and 16% were college graduates. These figures are comparable to Douglas County but less than the Washington State average of 83% high school graduates, and 22% college graduates.

D. UNEMPLOYMENT

TABLE 6 PERCENT OF RESIDENT CIVILIAN LABOR FORCE UNEMPLOYED

	1990	1995	1999
Chelan County	8.50%	10.10%	8.60%
Douglas County	7.30%	7.50%	6.80%
Washington State	4.90%	6.40%	4.70%

Source: Washington State Employment Security Department

Unemployment in the region is consistently higher than the state average. This is most likely due to the seasonal nature of the areas biggest employer, agriculture. Chelan County consistently posts higher unemployment rates than Douglas County. The number of persons commuting from Douglas County to work in Chelan County skews the unemployment figures for Chelan County and lowers the unemployment rate for Douglas County.

The unemployment rate increased for Chelan and Douglas County, as well as Washington State, from 1990 to 1995. Since 1995, the unemployment rate has decreased for Chelan and Douglas County, as well as Washington State. From 1990 to 1999 the unemployment rate has declined in Douglas County and in Washington State. However, during this same time period unemployment in Chelan County has increased slightly.

E. EMPLOYMENT BY SECTOR

It is important to recognize the regional nature of employment in the Chelan and Douglas County area. In 1998, Chelan County provided 80.4% of the jobs in the two county area and contained 73.7% of the total number of employers. The 1990 census asked respondents if they worked in the same county in which they lived. Nearly 57% of Douglas County's working residents worked in another county.

The largest four employment sectors for Chelan and Douglas County both, include agriculture, forestry, fishing; services; retail trade; and government. For Washington State, the largest four employment sectors do not include the agriculture, forestry, fishing sector; Chelan and Douglas counties largest employer. Washington State's largest employer is the service sector. The state's top three employment sectors do include services, retail trade, and government, as do Chelan and Douglas County in their top 4 employment sectors. The state's fourth largest employment sector is manufacturing, with 14.64% of total employment; in contrast to being Chelan County's fifth largest employer at 7.35%; and Douglas County's eighth largest employer at 2.47%.

Although manufacturing is the state's fourth largest employer, it is the state's second highest ranking industry, as a percentage of total wages paid in Washington State. The manufacturing sector in Chelan and Douglas counties ranks fifth and seventh respectively in the percentage of total wages paid by industry. Manufacturing plays a larger role in Chelan County than in Douglas County. In Chelan and Douglas County government ranks the highest in the percentage of total wages paid, while the service sector ranks the highest in Washington State.

TABLE 7 Average monthly employment and total wages in covered employment, 1998

	Average # of employees		Percent of Total		Wages Paid $		Percent of Total	
Industry	Chelan	Douglas	Chelan	Douglas	Chelan	Douglas	Chelan	Douglas
Agriculture, Forestry, Fishing	7,329	2,784	21.11	32.81	94,749,327	34,321,078	12.41	21.25
Mining								
Construction	1,747	377	5.03	4.44	52,228,949	9,566,542	6.84	5.92
Manufacturing	2,551	210	7.35	2.47	80,491,244	7,714,263	10.54	4.78

	Average # of employees		Percent of Total		Wages Paid $		Percent of Total	
Industry	Chelan	Douglas	Chelan	Douglas	Chelan	Douglas	Chelan	Douglas
Transportation, Communication, Utilities	963	319	2.77	3.76	25,580,088	10,256,303	3.35	6.35
Wholesale Trade	2,442	287	7.03	3.38	62,239,849	7,139,327	8.15	4.42
Retail Trade	5,921	1,541	17.06	18.16	86,346,721	20,790,520	11.31	12.88
Finance, Insurance, Real Estate		179		2.11		3,802,519		2.35
Services	6,709	1,115	19.33	13.14	148,581,609	17,739,005	19.46	10.99
Government	5,838	1,673	16.82	19.72	183,808,895	50,150,181	24.07	31.06
Other	1,214		3.5		29,627,735		3.88	
Total	34,714	8,485	100	100	763,654,417	161,479,738	100	100

Source: Washington State Employment Security Department

TABLE 8 TOP 4 EMPLOYMENT SECTORS BY PERCENTAGE OF TOTAL EMPLOYEES

	Chelan County		Douglas County		Washington State	
	Industry	As % of Total	Industry	As % of Total	Industry	As % of Total
1	Agriculture, Forestry, Fishing	21.11	Agriculture, Forestry, Fishing	32.81	Services	26.01
2	Services	19.33	Government	19.72	Retail Trade	17.91
3	Retail Trade	17.06	Retail Trade	18.16	Government	17.62
4	Government	16.82	Services	13.14	Manufacturing	14.64

Source: Washington State Employment Security Department

TABLE 9 TOP 4 INDUSTRIES BY PERCENTAGE OF TOTAL WAGES PAID

	Chelan County		Douglas County		Washington State	
	Industry	As % of Total	Industry	As % of Total	Industry	As % of Total
1	Government	24.07	Government	31.06	Services	26.14
2	Services	19.46	Agriculture, Forestry, Fishing	21.25	Manufacturing	19.36
3	Agriculture, Forestry, Fishing	12.41	Retail Trade	12.88	Government	18.62
4	Retail Trade	11.31	Services	10.99	Retail Trade	9.65

Source: Washington State Employment Security Department

F. AVERAGE ANNUAL WAGE BY INDUSTRY, 1998

The average annual wages for Chelan County are slightly higher than in Douglas County, but significantly less than the average for Washington State. The average cost of living index, Table 4, should be reviewed in light of the significantly lower salaries earned in Chelan County compared to the state average equaled or exceeded by many of the comparison areas in Table 4. In Chelan County the top three annual wages by industry included, government (1st), manufacturing (2nd), and finance, insurance and real-estate (3rd); in comparison to Douglas County with manufacturing (1st), transportation, public utilities (2nd), and government (3rd); and Washington State with manufacturing (1st), finance, insurance, real-estate (2nd), and transportation, public utilities (3rd).

TABLE 10

Industry	Chelan County	Douglas County	Washington State
Transportation & Public Utilities		31,160	40,299
Agriculture, Forestry, Fishing	12,089	12,794	15,613
Construction	27,880	26,671	33,653
Manufacturing	32,418	36,217	42,247
Wholesale Trade	25,737	25,729	39,140
Retail Trade	14,932	14,729	17,908
Finance, Insurance & Real Estate	24,978	22,454	40,700
Services	23,329	16,883	35,887
Government	32,563	30,610	33,872
Average Annual Wage	21,933	19,613	33,071

Source: Washington State Employment Security

G. AGRICULTURE

Agriculture employs the greatest number of persons in Chelan County. However, since 1990, the percentage of agricultural employees has decreased from 24.2 percent in 1990, to 21.11 percent of total employment for the county in 1998.
The land in farms in Chelan County has increased from 115,566 acres in 1987 to 123,731 acres in 1997. From 1987 to 1997, the average farm size has increased from 82 acres to 111 acres.

The number of irrigated farms has decreased from 1335 farms in 1987 to 1,058 farms in 1997. The number of farms with land in orchard has declined from 1,280 farms in 1987 to 992 farms in 1997. However, the amount of land in orchard has remained relatively the same with 29,736 acres in 1987, and 29,249 acres in 1997. The market value of agricultural products sold in Chelan County has declined from $152,105,000 in 1992 to $146,403,000 in 1997. (Sources: 1997 Census of Agriculture, Washington State Employment Security-1990, 1998)

TABLE 11 CHANGE IN THE NUMBER OF FARMS IN CHELAN COUNTY, 1987-1997

Number of Farms			
1997 (Year)	1992 (Year)	1987 (Year)	Farms by Size
307	376	443	1-9 acres
484	523	614	10-49 acres
227	253	249	50-179 acres
58	65	79	180-499 acres
18	13	14	500-999 acres
19	10	12	1000 or more acres

Source: 1997 Census of Agriculture

From 1987 to 1997, the acreage of land in farms in Chelan County did not significantly change. Data from recent changes in agricultural use, production and conversion from 1997 to the year 2000 are not yet available. The average farm size increased in the county, and the number of farms less than 500 acres in size significantly declined from 1987 to 1997. The trend appears to indicate a shift to larger farming operations and a significant decrease in the number of farms, in all but the largest farm operations.

A multitude of factors, including but not limited to global markets, increased competition, higher production costs, and an increase in regulations play a significant role in the decline of family farms in Chelan County. Family farms provide a significant amount of jobs and income in Chelan County. If the decline of farms less than 500 acres in size continues in Chelan County, it could have a significant impact on the local economy.

III. GOALS AND POLICIES:

GOAL ED 1: Expand the existing economic base to provide opportunities for economic growth in all communities in the county to ensure a healthy, stable and growing economy. Encourage efforts to diversify the existing economic base to focus on long-term sustainable economic development.

Rationale: The diversification of the economic base through sustainable economic development can help provide expanded job opportunities as well as a healthy, stable and growing economy. Diversification will reduce negative impacts to the area's economy and quality of life from changes to the agricultural industry. Areas of increasing importance are in the tourist and recreational industries.

Policy ED 1.1: Seek to attract businesses and industries that complement and build upon existing business and industry.

Rationale: Building upon relationships with existing business and industries can diversify the economic base and strengthen positions for existing businesses and industries.

Policy ED 1.2: Support and encourage development that creates local re-investment funds and provides jobs in the local community.

Rationale: Diversification and expansion of the county's economic base will expand job opportunities and bring additional resources for the growth and development of the county.

Policy ED 1.3: Limited industrial uses, and natural resource support and processing facilities and services that are not urban in nature nor require the extension of urban governmental services; with nuisance factors that make them inherently incompatible with location in urban growth areas, may be considered for location in remote rural locations. Location in remote rural locations must address potential impacts to surrounding land uses and critical areas.

Rationale: Some industrial and natural resource based uses due to their nature are not appropriate to be located in urban growth areas but can be located within remote rural locations within the limits set by rural governmental services, and the protection of the rural character and critical areas. Said uses can play an important role in support of other industries and businesses in the county.

GOAL ED 2: Encourage the retention and growth of recreational and tourist based industries consistent with the comprehensive plan.

Goal Rationale: Recreation and tourism play a significant role in the county's economy. Opportunities exist to strengthen and build upon the many tourist and recreational amenities and the locational advantages the county has to offer.

Policy ED 2.1: Encourage the development and maintenance of year-round recreation opportunities.

Rationale: Existence of quality year-round recreation will help give the county the ability to compete in the recruitment market to attract desired new business and industry and further enhance the quality of life enjoyed by residents and visitors in Chelan County. These activities also encourage longer stays by visitors to the area and also foster annual repeat visits.

Policy ED 2.2: Support tourism promotional activities such as development of brochures, local and self-contained events, recreational opportunities and media spots.

Rationale: Marketing of recreational and tourist amenities is a component to attract year-round tourism and the relocation of businesses to this area.

GOAL ED 3: Accommodate and support efforts to diversify the agricultural economy.

Goal Rationale: Agriculture plays a significant role in the economic base of the county. Economic development efforts shall support and diversify the agricultural economy so that negative impacts to the health of the county's economic base can be reduced.

Policy ED 3.1: Encourage value-added agricultural activities that strengthen and diversify the agricultural economy.

Rationale: The development of value-added agricultural activities can strengthen both the agricultural and tourism components of the county's economy.

Policy ED 3.2: Evaluate the effectiveness of strategies to support and diversify the agricultural industry during mandatory amendment cycles.

Rationale: Mandatory amendment cycles for the comprehensive plan provide opportunities to evaluate the effectiveness of strategies in regard to the success of the agricultural industry, current with changing markets and local conditions.

GOAL ED 4: Local economic development efforts should promote the availability of work, job security and stability, access to recreational and cultural activities, educational opportunities, quality health care, and affordable housing.

Goal Rationale: These factors provide a quality of life that is attractive to employees and existing and perspective businesses.

Policy ED 4.1: Support efforts to promote and maintain open space, recreation, and cultural and heritage resources and activities that are attractive to both local residents and visitors.

Rationale: These amenities and activities are key to the high quality of life enjoyed by county residents and are important in the retention and recruitment of business and industries.

Policy ED 4.2: Support economic development that recognizes and respects the needs, concerns, rights and resources of a diversity of cultural groups. Encourage the participation in economic development efforts in partnership with the community at large.

Policy ED 4.3: Foster a diverse, private-sector job base which will support above average wage jobs, and facilitates the retention and expansion of businesses.

Rationale: The aim is to retain college graduates from the area in addition to decreasing unemployment and under employment.

Policy ED 4.4: Chelan County will support efforts by educational institutions and educational partnerships with private industry to improve and expand vocational, post-secondary and higher education programs to promote a highly skilled, educated and a technically trained resident work force.

Rationale: A technically skilled local labor force will help attract and retain industries paying family wage jobs.

Policy ED 4.5: Support a full range of human and social services necessary to encourage a strong local economy.

Rationale: Adequate human and social services are necessary to meet community needs and contribute to a complete list of services that industries and businesses seek for their employees when locating in an area.

Policy ED 4.6: Foster an adequate housing supply for all income levels.

Rationale: Adequate, affordable housing plays an important role in retaining and attracting business and industry.

Policy ED 4.7: Encourage the recruitment of former residents, area college graduates, and entrepreneurs to bring in or develop local businesses and industry.

Rationale: Current and former residents can be a significant resource for business recruitment or development.

Goal ED 5: The County shall pursue and emphasize a regional and multi-jurisdictional approach to economic development.

Goal Rationale: A regional approach and a consolidation of efforts are key to the success of economic development for the county.

Policy ED 5.1: Chelan County should coordinate with the Chelan County Port District in the evaluation and ranking of economic development projects pursuant to the Washington Community Economic Revitalization Team process.

Rationale: The Chelan County Port District is a resource to use in making economic development decisions for the economic diversification of the county's economy and the fulfillment of the goals and policies of the comprehensive plan.

Policy ED 5.2: Support sound economic development policies that discourage jurisdictional competition for sales tax revenues.

Rationale: Competition within the region is an inefficient use of limited resources. Economic goals may have a higher chance of success through coordinated and consolidated efforts.

Policy ED 5.3: Chelan County shall encourage efforts to consolidate economic development efforts within the region.

Rationale: Consolidated economic development efforts will help ensure coordination among agencies and will limited resources to the used for other economic development efforts.

Policy ED 5.4: Pursue improvements to the region's air and land transportation systems to improve year-round accessibility.

Rationale: The region would benefit from improved transportation systems that provide greater accessibility to the region.

Policy ED 5.5: Coordinate with adjacent jurisdictions to create an environment which is supportive and attractive to the internet/information technology industries.

Rationale: Chelan County will benefit from regional collaboration for the attraction of high technology industries of both large or small scale.

Policy ED 5.6: Chelan County should work with the region's cities to develop a process for considering the siting of major industrial development, as that term is defined in RCW 36.70A.365, outside of urban growth areas. Such developments may be approved when consistent with the provisions and criteria of RCW 36.70A.365 and the goals and policies of the comprehensive plan.

Rationale: The potential for the siting of major industrial development consistent with RCW 36.70A.365 and the comprehensive plan should not be precluded.

GOAL ED 6: Establish a positive climate for economic development.

Goal Rationale: Many factors make up a positive economic climate. Economic development requires policies of positive and predictable support and encouragement for private investment.

Policy ED 6.1: Chelan County shall work with economic development agencies for the redevelopment of existing industrial areas and investigate potential incentives that may make redevelopment a greater financial opportunity.

Rationale: There are several sites where industrial activities used to be active. These sites may not be attractive to a change in use due to general appearance or location. Redevelopment of these sites is important to the economic diversity of the area. Redevelopment also provides jobs for the community and supports other policies of the comprehensive plan that encourage the infill and efficient utilization of land in the county.

Policy ED 6.2: Retain existing designated industrial sites.

Rationale: Due to the limited amount of available industrial sites in the county, existing industrial sites may face development pressure to convert to uses that will not further economic development efforts.

Policy ED 6.3: Chelan County shall work to provide information for identification and development of existing and potential tourist and recreational sites on both public and private lands.

Rationale: Because of its extraordinary geography, the county has many areas with potential for recreational and tourism development. Identification of specific sites requires the assistance the county.

Policy ED 6.4: Streamline and coordinate the permit process and sustain a supportive customer service approach towards permitting.

Rationale: A coordinated/streamlined permitting process with a customer service approach towards the public helps to provide a positive environment for

economic development and a greater degree of certainty in the permitting process.

Policy ED 6.5: The County should provide timely information and data to support public and private sector planning and development.

Rationale: The County in conjunction with economic development agencies and adjacent jurisdictions provide information and data that is important to public and private development efforts.

Policy ED 6.6: The County should be proactive in addressing endangered species listings and entering into watershed planning efforts.

Rationale: Recognizing the potential impact of endangered species listings on economic development efforts, the county has the opportunity to make positive steps towards the protection of endangered species and habitats within the county, while maintaining the ability to pursue sustainable economic development.

Policy ED 6.7: Economic development shall be one of the major considerations in the process of land use planning, transportation planning, infrastructure planning, and the determination of urban growth boundaries.

Rationale: Consideration of economic development in the process of planning for growth and development is necessary to build sustainable, healthy communities.

Policy ED 6.8: Seek to retain and support existing businesses and industries where consistent with the comprehensive plan.

Rationale: The retention and health of existing businesses and industries should be a key element of local economic development efforts.

Policy ED 6.9: Encourage a range of commercial retail and service businesses to meet local resident, business, industry and visitors' needs.

Rationale: A strong retail and service sector is necessary to support and attract all economic growth as well as sustaining existing business and development.

Policy ED 6.10: Support economic development by providing adequate levels of infrastructure and promoting technological advancements in public service and facility systems.

Rationale: This will enable the county to meet the demands of growth as these facilities and services are needed.