

Executive Summary

The Transportation Element is a required element of Chelan County's Comprehensive Plan. The Transportation Element must be consistent with, and help implement, the Land Use Element of the Comprehensive Plan. Chelan County developed an initial Transportation Element in 2000. Since then, the County has grown significantly. The County also has prepared (or is preparing) a series of subarea plans for communities in unincorporated parts of the County. The subarea plans have identified changes in land use plans, including expansion of urban growth areas, higher residential densities in rural areas, and increased commercial and industrial land uses.

The growing population and changes in the County's economy result in a need, and provide an opportunity, to systematically evaluate the County's transportation system. The resulting Transportation Element builds from the prior, and ongoing, planning efforts of the County, its Cities, the Washington State Department of Transportation (WSDOT), and other regional plans.

The resulting Transportation Element updates the policy basis for developing, maintaining, and operating the County's transportation system. The updated Transportation Element identifies and prioritizes transportation system improvements and programs to help resolve existing and forecast deficiencies, consistent with the Land Use Element. Reductions in existing transportation funding require the County to establish priorities for its transportation system. In addition, the Transportation Element identifies potential new and/or expanded financing programs to help close the gap between identified needs and available revenues.



Chelan County's varying landscapes result in unique transportation challenges in each subarea.

The overall goal of the Transportation Element is *"to provide a safe, convenient, and economically functional multimodal transportation system that focuses on the efficient movement of people, goods, and services."*

The objectives for the update of the Transportation Element 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

Planning Process and Stakeholder Engagement

The update of the Chelan County Transportation Element was prepared to be consistent with the requirements of the Washington State Growth Management Act (GMA). This includes establishing the link between the Land Use and Transportation Element, identifying level of service standards, and preparation of a realistic multi-year financing plan. The identified improvement needs address both existing issues and future conditions. As required by GMA, state highway facilities are also addressed.

The Transportation Element also was prepared based on input from the general public, a range of stakeholders, and other agencies. The stakeholder engagement process included:

- A series of five stakeholder advisory group meetings were held during the study process.
- A series of meetings in communities throughout Chelan County to present and receive input on the Transportation Element as it was being developed.
- Two public open houses were held at key points in developing the plan.
- An internet-based forum was set-up for dissemination of project materials and opportunities for public comment.
- A multi-agency Steering Committee was established to provide direction on policy options and overall plan priorities based on input from the public and stakeholders.

The Transportation Element and its various elements were presented to the Chelan County Board of County Commissioners (BOCC) during the preparation of the update. The BOCC provided formal policy direction for the Transportation Element and will be asked to adopt it as part of the County's 2009 Comprehensive Plan amendment process. The adoption process will include formal public hearings. The BOCC would also need to formally review and adopt several identified development regulations to implement the Transportation Element. The development regulations include an update to the County's Transportation Concurrency Management (TCM) program. The BOCC also would need to adopt ordinances to implement a transportation impact fee (TIF) and some other funding program strategies.



Public meetings were held to obtain input from the community.

Transportation Issues, Priorities and Policies

As required by GMA, the Transportation Element of the Chelan County Comprehensive Plan must be consistent with the priorities established in the Wenatchee Valley Transportation Council (WVTC) Regional Transportation Plan (Confluence 2025) and the priorities in the Washington Transportation Plan (WTP).

The WVTC Regional Transportation Plan states WTP provides a broad framework for the County's Transportation Element. Input on transportation issues from the public and stakeholder groups were used to refine the broad priorities for the Transportation Element. The priorities were then used to provide a relative ranking of projects. They also provide a basis for the updated transportation policies.

Countywide Transportation Issues

A broad listing of transportation issues in the County were defined based on input from stakeholders, analysis of transportation data, and review of other studies. The issues can be summarized into five primary themes:

- **Funding for Maintenance and Preservation of the Roadway System**
There is a general concern that the County and its 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 with more growth 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 and stakeholders. 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 an issue. 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.

Priorities

Stakeholders and the general public were asked to rank 12 broad evaluation criteria in order to assist in establishing priorities for the Transportation Element. Through this process the following top three priorities were identified. These priorities are consistent with the WTP and WVTC Regional Transportation Plan.

- **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.

Although not included in the top three priorities, other criteria also were noted as important considerations. These include:

- Supporting regional and local land use plans
- Costs of improvement projects
- Enhancing transit and other ride-sharing options
- Support for economic development in the County
- Supporting security and emergency response
- Reducing impacts on the environment

A rating system based on the priorities was developed to categorize each proposed transportation improvement into one of three tiers:

Table E-1: 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 than 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

Policies

The overall goal of the Transportation Element, as presented above, is to provide a “safe, efficient, and economically functional multimodal transportation system.” This broad goal will be implemented through a range of other transportation goals and policies. The other goals and policies address the following topics:

- Coordination and Consistency
- Roadway System
- Air Transportation
- Rail Transportation
- Freight and Goods
- Non-motorized Transportation
- Transit and Transportation Demand Management
- Economic Development
- Coordination with Land Use
- Environment and Energy
- Implementation and Funding

The goals and policies provide direction and guidance for prioritizing multimodal transportation system improvements and funding options. The goals and policies directly link the transportation system strategies with land use plans and economic development objectives.

Planning for Growth

Land use growth for each subarea was derived from the County's recent (and ongoing) subarea planning processes. The subarea plans build from the Washington State Office of Financial Management (OFM) projections for Chelan County. The County and its Cities have selected OFM's "high growth" scenario for use in preparing their Comprehensive Plans.

OFM's high growth scenario estimates that the population of Chelan County (unincorporated plus Cities) will grow from 69,200 in 2005 to 100,700 by 2025. This represents an annual growth rate of 1.9 percent. For planning purposes, the County and Cities have allocated the growth amongst the various jurisdictions. The allocation process took into account existing city limits, designated urban growth areas (UGAs), and different types of rural land uses.



New residential developments throughout the County were a primary reason for updating the County's Transportation Element.

Based on the subarea plans and OFM projections, the following population growth assumptions were used to support development of the travel forecasts and improvement needs.

Table E-2: 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	<i>*Analysis based on the Foothills Traffic Study</i>			
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.

In addition to population growth, future transportation demand will be generated through growth in employment. 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.

The following summarizes the existing and future commercial and industrial development by subarea. The square footage estimates only include unincorporated areas of the County.

Table E-3: 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 growth assumptions and historical traffic volume trends were used to develop forecasts of daily traffic volumes. The forecast volumes were used to help define future transportation system deficiencies and potential improvement projects.

Transportation System Needs & Improvement Strategies

The Transportation Element includes a full range of multimodal transportation system improvements. The improvement projects and programs build from the study issues, analysis of existing deficiencies, and travel forecasts based on growth projections. While the Transportation Element focuses on unincorporated areas of Chelan County, it also includes key improvements to the State Highway system. Key transportation improvements are also included within the Cities of Chelan and Leavenworth which were jointly participating in the County process and contributing financially to the project. The City of Leavenworth updated their entire Transportation Element at the same time. In addition to roadway, intersection, and non-motorized transportation improvements, the Transportation Element identifies potential transit service and facility projects to enhance the use of alternative travel modes. Other modes – rail, air, and water – are also addressed.

The Transportation Element is organized by subarea. The subareas largely track with the County’s land use planning processes. The subareas provide a consistent framework for transportation planning and the link to land use plans. As discussed above, the projects from each subarea were prioritized to provide a blueprint for funding and programming of transportation improvements throughout the County. A subset of noteworthy transportation projects for each subarea are discussed below.

Sunnyslope Subarea

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.

The following are noteworthy projects identified in the Transportation Element:

State Highways

- Grade-separation at the US 2 / Easy Street intersection
- New Sunnyslope interchange
- Traffic signal at US 97A / Ohme Garden Road

County Roadways

- 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

- Valley Trail to connect Monitor and Wenatchee
- Sidewalks on Knowles Road, Penny Road, Euclid Avenue and Peters Road

Other Travel Modes

- Consider increasing frequency of service and direct connections
- Create a multimodal hub in central Sunnyslope near the intersection of School Street and Easy Street
- Evaluate high capacity transit concepts



Urban roadway amenities, such as sidewalks, are a top priority in the Sunnyslope subarea.

Wenatchee Foothills Subarea

There is a need for improvements on specific corridors in the Foothills area of Wenatchee. Many of the improvements specifically address the need for urban amenities such as sidewalks and roadway reconstruction.

The following are noteworthy projects identified in the Transportation Element:

County Roadways

- Widen and upgrade Number One Canyon Road, Squilchuck Road, McKittrick Street and Walnut Street to urban standards
- Provide new circulation roadways in the northern area of the subarea as development occurs

Non-Motorized

- Valley Trail to connect Monitor and Wenatchee
- Sidewalks on South Wenatchee Avenue between Boodry Street and City limits
- Sidewalks on Western Avenue between the two City limits

Malaga Subarea

Significant residential growth will put considerable pressure on the existing transportation infrastructure, and will require the development of new roadways in addition to some improvements on the existing facilities. 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. Projects include the creation of new roadways, upgrades of existing roadways and development of pedestrian facilities.

The following are noteworthy projects identified in the Transportation Element:

County Roadways

- Dixie Lane roadway improvements
- W. Malaga roadway improvements and turn lanes
- Intersection improvements at W. Malaga Road / McEldowney Road

Non-Motorized

- Pedestrian facilities on Bainard Road between Dixie Lane and Saturday Avenue



Many of the projects for Malaga include the creation of new roadways, upgrades of existing roadways and development of pedestrian facilities.

Entiat Subarea

Most of the transportation issues identified in Entiat are along US 97A, and have to do with safety concerns. US 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 US 97A.

The following are noteworthy projects identified in the Transportation Element:

State Highways

- Pedestrian and bicycle facilities, access management, intersection treatments, and gateway improvements along the US 97A corridor
- Safety improvements at the intersection of US 97A and Entiat River Road that could include traffic control, channelization, or illumination enhancements

County Roadways

- Widen the shoulder along Entiat River Road west of the City limits

Non-Motorized

- 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
- Sidewalks and improved pedestrian crossings along US 97A

Other Travel Modes

- Increase in the frequency of service on Route 21 (Wentachee/Chelan-Manson)
- Expand the park and ride capacity to serve higher demand in the future

Chelan Subarea

Much of the development in the Chelan area 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.



New trails and pedestrian amenities are high priority projects in the Chelan subarea.

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 focus on short segments that could be built such as a segment between Winesap Road and Boyd Road.

The following are noteworthy projects identified in the Transportation Element:

State Highways

- Improve safety and operations at the intersection of SR 150 and No See Um Road by adding turn lanes

County Roadways

- Complete a corridor study of the Manson-Chelan alternative route
- Construct and widen shoulders along Boyd Road
- Improve Union Valley Road

Non-Motorized

- Establishing an enhanced regional trail system
- Create a new trail running from the Chelan city limits to Lake Chelan State Park
- Widen shoulders between Lake Chelan State Park and the 25-mile Creek State Park
- Maintain and/or improve a minimum 6-foot shoulder along SR 150 for non-motorized use

Manson Subarea

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.

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 focus on short segments that could be built such as a segment between Winesap Road and Boyd Road.

The following are noteworthy projects identified in the Transportation Element:

State Highways

- The intersection of SR 150 and Madeline Road has been identified as needing turn lane improvements to address safety issues at the intersection
- Widen SR 150 for turn lanes at public road intersections and private approaches as new development occurs
- Provide or maintain at least a 6-foot wide paved shoulder for non-motorized use along SR 150.

County Roadways

- Complete a corridor study of the Manson-Chelan alternative route
- 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

Non-Motorized

- New sidewalks along SR 150 within the Manson UGA.
- Provide sidewalks and improved pedestrian crossings along Green Avenue, Hill Street and Totem Pole Road.
- Maintain and/or improve a minimum 6-foot shoulder along SR 150 for non-motorized use

Other Travel Modes

- Increase in the frequency of transit service
- Investigate the need for a park-and-ride to serve higher transit demand in the future
- Support a new ferry service between Lake Chelan State Park and Manson to help reduce vehicular traffic around the lake during the summer months and improving 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. 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. Some of the existing deficiencies on the transportation system will likely 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 in the UGA areas.

The following are noteworthy projects identified in the Transportation Element:

State Highways

- Intersection safety improvements along US 2/97 at several intersections such as Cotlets Way, Goodwin Road, Red Apple Road and Old Monitor Road

- Additional passing lanes, pull-outs and rest areas along US 2/97 to better accommodate freight and tourists
- Complete several proposed interchanges, such as the East Cashmere interchange near Red Apple Road and the Goodwin Road interchange as recommended in the US 2/97 Corridor Safety Study (June 2002)

County Roadways

- 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
- Widening and repaving segments of Kelly Road and Zager Road
- Widen and upgrade Red Apple Road
- Improve intersection sight distance and traffic control at Binder Road and Coates Road
- Eliminate the current “Y” intersection at Kelly Road and Barden James Road

Non-Motorized

- New trail connection between Tichenal Road and Old Monitor Road
- Completion of the Valley Trail to connect Monitor and Wenatchee and between Cashmere and Monitor
- Sidewalk improvements along Sunset Highway, Pioneer Avenue, Binder Road, Mission Creek Road, Wescott Drive, and Evergreen Drive

Other Travel Modes

- Establish a park-and-ride to serve higher transit demand in the future

Peshastin/Dryden Subarea

A new UGA was recently created for Peshastin and will likely lead to more residential and commercial development in the area. A significant amount of the new development will likely occur around the Big Y interchange. 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.



The Old Peshastin bridge is narrow and lacks basic pedestrian and bicycle accommodations.

The existing circulation pattern in old 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. Local access roads built to serve agricultural needs (orchards) need to be upgraded to support residential developments.

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.

The following are noteworthy projects identified in the Transportation Element:

State Highways

- Provide access management treatments along US 2 north of the new interchange by consolidating driveways, adding center turn lanes, and providing pedestrian improvements
- Improve illumination at the intersection of US 2 with Stage and Stemm Roads
- Intersection improvements and traffic control along US 97 with Roller Coaster Road and Blewett Cutoff Road

County Roadways

- Rehabilitate or replace the Old Peshastin Bridge
- Widen and upgrade Roller Coaster Road, Blewett Cutoff Road, and Beecher Hill Road
- Provide new roadway connections in the new UGA next to the Big Y interchange (north-south between Green Road and Roller Coaster Road, and east-west between Roller Coaster Road and Blewett Cutoff Road)
- Roadway improvements on North Road between Main Street and Nibblelink Road
- Improve street lighting, signage and traffic control along Main Street
- Improve intersection at Main Street / Peshastin Road

Non-Motorized

- Completion of the Valley Trail between Leavenworth and Peshastin, and Peshastin and Dryden
- Sidewalks on Main Street and Peshastin Road

Other Travel Modes

- Establish a new park-and-ride that is more central to the UGA

Leavenworth Subarea

Many of the transportation needs in the Leavenworth area address congestion and safety issues along US 2. It is a challenge to serve the needs of regional through traffic along US 2 while maintaining and improving the main street character and pedestrian safety. The area is continuing to grow and transportation infrastructure improvements are needed to support the anticipated development, particularly in the UGA located north of the City limits.

The transportation 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. Key roadways providing access to US 2 or connectivity with other communities are in need of improvements to serve existing and future needs.



Many of the transportation needs in the Leavenworth area address congestion and safety issues along US 2.

The following are noteworthy projects identified in the Transportation Element:

State Highways

- Improve intersections along US 2 with E. Leavenworth Road, Chumstick Highway, Ski Hill Drive, Mill Street, and Icicle Road
- Improve pedestrian crossing safety by constructing a new pedestrian underpass along US 2 near the downtown park, across from City Hall
- Complete a preliminary design study to further investigate and define potential solutions and enhancements along the US 2 corridor through Leavenworth

County Roadways

- Construct a new collector roadway between Titus Road and Chumstick Highway
- Widen and improve North Road
- Safety, channelization, and illumination improvements at Chumstick Highway/North Road intersection
- Construct a new north-south roadway connecting Titus Road with Bergstrasse/Detillion Road and Village View Drive
- Upgrade Bergstrasse/Detillion Road to collector street standards by constructing sidewalks and improving pavement and drainage
- Upgrade Ski Hill Drive and Titus Road with wider shoulders or a separated multi-use pathway, illumination, signage, and traffic calming features
- Reconstruct segments of East Leavenworth Road with wider shoulders and improved base and surface material.

Non-Motorized

Greater details on planned pedestrian, bicycle, cross-country skiing, and equestrian facilities are provided in the Upper Valley Regional Trails Plan.

- Completion of the Valley Trail to connect Leavenworth to Peshastin
- Provide a new trail connection between the downtown and the future Amtrak station on North Road
- New Sidewalks or pathways along Ski Hill Drive, Titus Road, and Pine Street
- Construct a pathway along Chumstick Highway to connect schools with North Road
- Provide new sidewalks on Bergstrasse/Detillion Road
- Provide a new pedestrian underpass along US 2 near City Hall to improve crossing safety for pedestrians and improve mobility for vehicles along US 2

Other Travel Modes

- Provide faster and more convenient bus service between Leavenworth and Wenatchee
- Develop a new and improved park-and-ride lot in Leavenworth to replace the existing facility
- Provide weekend transit service

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 following are noteworthy projects identified in the Transportation Element:

County Roadways

- Improve the roadway structure and surface, widen shoulders, and address horizontal curvature issues along Chumstick Highway.

- Upgrade base materials and pavement along the Chiwawa Loop Road similar to those recently completed in 2008

Finance & Implementation Program

The estimated costs of the transportation improvement projects and programs were compared to projections of the County’s existing revenues applied toward transportation. As with most local agencies, the County’s existing revenues fall well short of funding its identified transportation system needs. Therefore, the Transportation Element identifies strategies for expanding existing revenues and addition of new transportation funding programs.

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. The following table 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 this table.

Table E-4: 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	\$190 million	\$32 million	\$44 million	\$114 million
New Construction or Upgraded Transportation Improvements to Serve Growth	\$114 million	\$21 million	\$17 million	\$76 million
	\$491 million	\$240 million	\$61 million	\$190 million

1. Costs in 2008 dollars

2. Priority Tier per ranking system as described above

3. Maintenance and operations costs were not assigned to the tiers, all maintenance and operations needs are assigned to high priority.

The most basic funding need is for maintaining and operating the County’s transportation system. These programs cover road repairs; overlays; snow plowing; maintaining signing, illumination, markings and traffic controls; safety enhancements; and day-to-day operations. Based on historical trends, the County will need \$187 million (in 2008 dollars) to maintain and operate its transportation system at current levels. Funding less than that amount will require the County to reduce its level of maintenance.

Capital transportation projects were divided into improvements needed to upgrade roadways even without growth and those needed to serve growth. Improvements needed without growth include reconstructing roadways to meet County Road Standards, widening and upgrading roadway shoulders to improve safety and provide for non-motorized travel, spot safety improvements, and replacement or rehabilitation of aging bridges. The reconstruction projects and other capital transportation improvements needed without growth will require \$190 million (2008 dollars) in funding. Of these, \$32 million is needed to fund projects identified as being the County’s highest priorities.

Capital improvements primarily needed to serve forecast growth include construction of new arterials or collector roadways, widening existing roadways to add capacity, and operational improvements to reduce congestion and safety with increased traffic volumes. Improvements to further enhance non-motorized transportation facilities in the higher growth subareas are also included. Approximately \$114 million (2008 dollars) in funding will be needed to address the

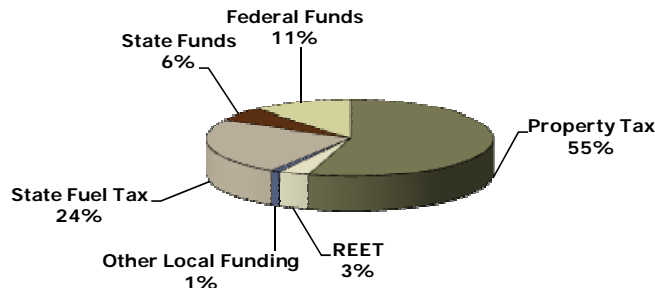
identified growth-related transportation improvements. Of these, \$21 million are identified as being in the highest priority category.

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.

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.

The following graphic shows the estimated shares of the County's existing transportation revenue sources between 2008 and 2027.



SOURCE: Chelan County Transportation Funding Report, Berk & Associates, March 19, 2009

Property Taxes and Other Local Funding. 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

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

Projects and programs were combined into three categories as part of the development of a financial strategy for the Transportation Element.

estimated 3.5 percent rate of inflation. Therefore, cities and counties are seeing a decline in total Property Tax purchasing power.

State Fuel Taxes. Approximately one-quarter of the County’s transportation revenues come from state fuel 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.

Other State and Federal 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.

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 real purchasing value of the state and federal funds will decline due to inflation.

Existing Revenues versus Costs

The Transportation Element projects that the County’s existing transportation revenue sources will generate \$171 million (in 2008 dollars) to fund costs over the 2008 to 2027 time period. These revenues are significantly below the \$491 million (in 2008 dollars) in improvement project and program costs, as shown in the following table.

Table E-5: 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	\$304 million	(\$264 million)
Total Transportation Program	\$171 million	\$491 million	(\$320 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.

The table 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 \$264 million over the 20-year period. The available \$40 million for capital projects would not fully cover the \$53 million in Tier I priority projects. It also would be \$36 million short of covering the \$76 million cost of the Tier I and Tier II reconstruction and non-motorized enhancement projects exclusive of any growth-related transportation improvements.

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.

A draft TIF program was developed and is included in the Transportation Element. TIFs can only be used to help fund improvements needed to serve new growth; GMA specifically notes that the fees cannot be used to address existing deficiencies. A draft TIF program is based on costs of specific growth-related improvements; the costs of these projects were adjusted to account for previous or currently committed funding.

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 existing revenue projections, presented above.
- 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).

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.

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. In the future, 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

- Motor vehicle license renewal fee

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.

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. 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 have discretion in its financial contribution to the overall project costs of the district.

Finance Summary

The following table 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 E-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	\$240,000,000	\$491,000,000
Difference (Revenue less Costs)	(\$30,500,000)	(\$127,000,000)

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.

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.

The funding program does not specifically account for other developer mitigation (beyond the potential TIF program). 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.

Implementation Requirements

Following adoption of the Transportation Element, Chelan County will need to formally propose and adopt several development regulations, administrative rules, and funding programs to fully implement the Transportation Element. These include:

- Review and adoption of a revised Transportation Concurrency Program.
- Traffic Impact Study Regulations to address the revised concurrency program.
- Continued authorization of using "banked capacity" to fund the Road Levy.
- Seek future voter approval of a lift to the maximum property tax levy to fund transportation system improvements.
- Review and adoption of a Transportation Impact Fee (TIF) program.
- Work with other agencies to explore and potentially implement a Transportation Benefit District (TBD) to help fund regional transportation improvement.
- Seek changes from the State Legislature in other transportation funding options such as a SEPA Planned Action Ordinance (which is currently only eligible for use in urban areas) and reducing the limitations on use of funding through TBDs to provide more flexibility.
- Monitor the funding and implementation of projects as part of its 6-Year Transportation Improvement Program.
- Update the County road log to obtain data necessary to monitor the concurrency program.