

# Transportation Appendix

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## Transportation System Inventory

The Town of Skykomish contains a network of roads and pedestrian facilities. With the exception of State Route 2 (SR2) and minor private roads, the street network is owned and operated by the Town. State Route 2, which runs through the northern half of the Town, is a key transportation connection between Eastern and Western Washington and provides the only access from the Town to other communities in the region. State Route 2 is designated as a highway of statewide significance, Fifth Street and Cascade Avenue, which are collector arterials, connect local access streets in the Town to SR2. The town, located about 50 miles east of Everett, is not served by transit, and while the Burlington Northern Santa Fe Railroad operates on a line that runs through town, there are no scheduled train stops in Skykomish or adjacent communities.

### Roadways

#### Functional Street Classification

Transportation systems include a hierarchy of streets that provide through-movement and land access functions. Streets are classified based on these functions. All streets in Skykomish are classified according to the functions they serve.

State law requires that cities and counties classify their streets based on federal and state guidelines (RCW 35.78.10 and RCW 47.26).

The streets in the Town of Skykomish may be classified according to the hierarchy of street designations listed below. Because of the limited transportation system functions served by Skykomish streets, and the low traffic volumes present, use of all of these classifications is not warranted at this time:

- Principal Arterial
- Minor Arterial
- Collector Arterial
- Local Access "A"
- Local Access "B"

**Principal Arterials** are streets of regional significance connecting larger communities and carry the greatest portion of through-traffic or long distance travel. Land access from a principal arterial to adjacent properties is minimized. A principal arterial is generally connected to a freeway and/or other arterials and carries high volumes of traffic.

**Minor Arterials** are streets of town-wide significance connecting neighborhoods and facilities with other arterials and collectors. Their traffic volumes are generally lower than principal arterials and they generally serve through-traffic, although may provide a minor amount of local access.

**Collector Arterials** collect traffic from local streets in residential areas and convey it to minor and/or principal arterials. While more local access may be allowed on collector arterials than on minor and principal arterials, they provide an important arterial function. Lower traffic speed limits are usually posted and lower traffic volumes are observed than on minor and principal arterials. Collectors serve up to 50 dwelling units.

**Local Access** streets are local streets in neighborhoods and commercial areas that provide direct access to abutting properties. Through-traffic is generally discouraged on local access streets. Local access "A" streets serve up to 25 housing units, while local access "B" only serve up to four dwelling units.

**Table TR-1** lists the Town of Skykomish streets by functional street classification.

**Table TR-1  
Town of Skykomish Functional Street Classification**

Classification	From	To
Principal Arterial		
SR2	West Town Limit	East Town Limit
Collector Arterial		
Fifth Street	SR2	Cascade Avenue
Cascade Highway East	East Town Limit	Fifth Street
Cascade Highway West	West Town Limit	Fifth Street

All other streets within the Town are classified as local access (A or B). There are no streets classified as minor arterials.

Street Inventory

The Town of Skykomish maintains an inventory of all Town streets. The street system encompasses about 2.13 miles of Town-maintained roads and about 0.65 miles of state highway (**Table TR-2**). The Fifth Avenue that crosses the Skykomish River is owned and maintained by the Washington State Department of Transportation.

**Table TR-2  
Town of Skykomish Street Inventory**

Classification	Length (miles)
Principal Arterial	0.65
Collector Arterial	0.82
Local Access	1.47
TOTAL	2.94

Source: Town of Skykomish

Additionally, the Town's Street Inventory includes information on right-of-way width; sidewalks; pavement conditions, width and type; and traffic control devices.

The bridge on 5<sup>th</sup> Street between Highway 2 and the portion of Skykomish on the South side of the Skykomish River is owned and maintained by the state of Washington. The Washington State Department of Transportation (WSDOT) has identified no weight limits for the bridge. The bridge is inspected once a year and any upgrades necessary are placed on a list of regionwide projects and are completed in turn. According to the WSDOT, no work is scheduled until between 2006 and 2008.

### Traffic Volumes

State Route 2 is the most heavily traveled roadway in the Town, with average daily traffic (ADT) volumes for 2002 at 4,802 vehicle trips.<sup>1</sup> Traffic volumes have not been recently measured on other local streets.

### Level of Service

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service (LOS) is a quality measure that describes operational conditions within a traffic stream, generally in terms of such measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Letters are used to designate the six levels, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions and the driver's perceptions. Safety is not included in the measures that establish service levels.

Level of service for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometries, traffic and incidents. Total delay is the difference

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<sup>1</sup> Average Daily Traffic (ADT) is an average 24-hour traffic volume at a given location for some period of time less than a year. This data is a summary of the top two hundred volume hours for the year 2002. The data was collected on SR 2 east of the intersection with Old Cascade Highway at Mile Post 50.12. (Washington Department of Transportation, Peak Hour Report, Year 2002)

between the travel time actually experienced and the travel time in the absence of traffic control, geometric delay, any incidents and any other vehicles. The Highway Capacity Manual (HCM 2000) defines the signalized and unsignalized intersections with the average control delay per vehicle in **Table TR-3**.

**Table TR-3  
Definition of Intersection Level of Service**

Level of Service	Signalized Stopped Delay per Vehicle (seconds)	Unsignalized Average Total Delay per Vehicle (seconds)	Description
A	0-10	0-10	Little or no delay
B	10-20	10-15	Short delays
C	20-35	15-25	Average delays
D	35-55	25-35	Long delays
E	55-80	35-50	Very long delays
F	>80	>50	Failure - extreme congestion

Source: Highway Capacity Manual, 2000.

Consistent with the GMA requirement for comprehensive plans, the Town adopted an LOS standard of "C" for all Town streets. The State Highway System Plan has identified an LOS standard of "C" for SR-2, a "highway of statewide significance" located in a rural area.

It is not feasible for the Town to comprehensively and quantitatively monitor level of service standards at intersections within the Town. With the exception of intersections of 5th Street with SR2 and with the BN&SF railroad, local driver perception indicates that all intersections operate at an LOS of 'C' or better. The Town will study, or require studies of, specific streets and intersections when proposed developments have the potential to affect the LOS. The Town continues to work with BN&SF to address impacts of periodic closures of 5th Avenue to permit trains to pass; issues of delayed emergency vehicle passage; pedestrian and vehicle safety; and to mitigate the impacts of delays at rail crossings. The Washington State Department of Transportation adopted LOS for SR2 is "C," which is based on the average weekday peak traffic. The DOT does not consider weekend traffic, which may be significantly higher for SR2, than when monitoring LOS. The Town will work with DOT to maintain the LOS for the highway and will encourage improvements to accommodate weekend traffic.

### Transit

No transit service is currently provided to the Town of Skykomish. Gold Bar, located about 20 miles west of Skykomish, is the eastern terminus for Community Transit (CT) routes 720 and 727. Both routes stop at the Gold Bar park-and-ride lot located on the south side of SR2 and both routes provide service along SR2 to Everett. Route 727 provides direct access to Boeing's Everett facility.

## **Pedestrian and Bicycle**

Sidewalks are provided along the north side of Railroad Avenue, and on at least one side of the street in the area north of Railroad Avenue. Specific information pertaining to sidewalk locations and conditions is available at the Town Hall. Most other streets in Town do not have sidewalks.

Some bicyclists traveling to Stevens Pass or across the Cascades travel along Cascade Avenue (Old Stevens Pass Highway) through Town either to enter Skykomish or as alternative to traveling along SR2. Cascade Avenue does not have a dedicated bikeway.

The Town lacks dedicated pedestrian and bicycle connections to other communities in the Skykomish Valley or beyond. Generally, the shoulder of SR2 is the only pedestrian or bicycle connection between Skykomish and areas to the east and west.

## **Trails**

Skykomish is the gateway to the Alpine Lakes Wilderness Area and other trails located in the Mount Baker-Snoqualmie National Forest. The Iron Goat Trail, a heavily used trail that follows the path of the original rail route through Stevens Pass, has its western terminus about six miles east of Skykomish. However, there are no direct pedestrian connections to hiking trails from the Town.

## **Air, Rail, and Truck Traffic**

### Air

One mile east of Skykomish, on the south side of Highway 2, the Washington Department of Transportation (WSDOT) Aviation Division operates Skykomish State Airport. From within the Town, the airfield is accessible by traveling east out of town on Cascade Avenue. The Skykomish State Airport is included in the Washington State Airport System Plan. The grass-surfaced airport was used extensively in the 1940s as an emergency airstrip to accommodate military DC3's traveling over the Cascades. Today it continues to provide an emergency landing strip, as well as airlift evacuation services for accidents and highway emergencies, and a landing strip for recreational air travel and limited military uses. The site is staffed year-round by a caretaker, and is approximately 30 acres in size, including a campground used by recreational pilots. The airport is generally closed between November and March due to field conditions.

The WSDOT indicates the field could be used for delivery and other commercial purposes. The WSDOT has joint grant programs (between the Town and the state) that could be pursued if Skykomish wanted to expand the usage of the airport. Recommended improvements include additional land acquisition and a runway upgrade.

Additional nearby airports are located in Sultan, Everett, and Arlington. Intrastate and international service is provided at SeaTac International Airport. All airports outside of the immediate area are accessible by SR2.

## Rail

East-west rail tracks run through Skykomish parallel to SR2 and on the south side of the Skykomish River. The Burlington Northern & Santa Fe Railroad operates freight trains and Amtrak operates passenger rail using these existing tracks. Although Skykomish was once served by rail and rail service facilities are located in town, a functioning train station no longer exists in the Town and rail service has been discontinued.

## Truck Routes/Deliveries

Truck traffic into Skykomish includes that associated with rail yard activities, waste hauling trucks accessing the waste facility to the east of Town, and smaller trucks completing pickups and deliveries. No traffic counts on trucks are currently available; however, the community reports that most truck traffic accesses the Town off of SR2 and Fifth Street. The Town does not currently have designated truck routes.

## **System Deficiencies**

While the Town does not experience significant LOS deficiencies, many of the rights-of-way are not fully developed with full pavement width, curbs, or sidewalks.

Additionally, while the Town is situated amid various outdoor destinations, including popular hiking trails, there are no pedestrian or dedicated bicycle connections between local Town streets and regional trails.

Community residents have expressed interest in reestablishing transit service in the town.

The community has expressed concern about the impacts of truck traffic through Town, as well as the impacts of trucks and Highway 2 traffic being rerouted through Town by the State Patrol and Washington State Highway Department if traffic on Highway 2 is interrupted.

## **Future Conditions**

### **Projected Population and Employment Growth**

As documented in the Land Use Appendix, Skykomish has experienced long periods of declining population with limited periods of growth. Skykomish has grown by an average annual rate of 2.6 percent over the last five years and cities to the west have grown consistently at rates ranging from 3.3 to 6.9 percent annually during the 1990's, and King County's average rate of growth during the 1990's was 1.3 percent per year. Historic trends in Skykomish, however, indicate that population is more likely to decline in Skykomish than to grow.

Population projections for Skykomish range from a low of 145 to a high of 389 for year 2025.

The retail and education sectors generate 106 jobs in Skykomish. However, King County has not allocated an employment growth target for the Town and economic development is not anticipated to result in significant additional transportation demand.

**Table TR-4  
Town of Skykomish Growth (2002 –2025) Assumptions**

	2002	Change	2025 Projection
Population	215	-70 to +194	145 to 389

**2025 Traffic Growth**

The Town of Skykomish includes a limited area of land. While some land is vacant or capable of supporting redevelopment any new development would be modest due to the total overall capacity. Future growth within Skykomish would likely occur on those undeveloped and underdeveloped parcels, and nearly all land in Town uses Cascade Avenue and Fifth Street to provide access to SR2. Therefore, the impacts of 2025 growth are likely to be focused on Cascade and Fifth Street.

No traffic counts have been completed for Skykomish, nor has there been any traffic modeling. Given the population growth projected during the planning period, this level of analysis is not warranted, nor is funding for such an effort currently available. Level of service on Skykomish streets are not expected to be appreciably affected by increased population over the next 20 years

**Future Deficiencies**

With limited growth projected for the next twenty years, future development is expected to be adequately accommodated by the street infrastructure at today’s standards. That is, if streets and other facilities, such as sidewalks, are improved to correct existing deficiencies, future growth will be accommodated. As development occurs, it should be required to make improvements that are consistent with adopted design and construction standards.

## Transportation Facility Plan (2003 – 2025)

The transportation improvements in the Facility Plan are described in Table TR-5.

Table TR-5  
Transportation Facility Plan (2003-2025)

Project Description	Street Classification	Priority	Estimated Cost
<i>Reconstruction Work on:</i>			
Railroad Avenue	Local Access	High	\$10,000
Old Cascade Highway	Collector Arterial	High	\$10,000
Helen Street	Local Access	High	\$10,000
Reginald Street	Local Access	High	\$10,000
River Drive West	Local Access	High	\$10,000
Becker Street	Local Access	High	\$10,000
Thelma Street	Local Access	High	\$10,000
1st - 4th Street	Local Access	High	\$10,000
Railroad Ave. sidewalks	Local Access	High	\$10,000
5th Street sidewalks	Collector Arterial	High	\$10,000
Total Cost			\$100,000

Source: Estimated costs developed by Town of Skykomish.

Following installation of the Transportation Facility Plan improvements, all arterial intersections in the Town are expected to operate at or above the minimum LOS standards (not including intersections with SR2 that may be limited by the state's highway plan).

## Financial Plan

### Existing Revenues and Expenditures

Revenues available for financing transportation improvements in the Town can be highly variable, depending on the amount of development activity, grant applications and awards, and local economic factors. Funds for transportation improvements typically come from the following sources:

- Town general funds (sales tax, real estate excise tax, and property tax)
- Distributions from state gas tax
- Developer contributions and mitigation (impact fees)
- Grants – both federal and state sources

- Bond financing
- Local Improvement District (LID) financing
- Contributions from local/regional jurisdictions (King County and Puget Sound Regional Council)

In 2002, the Town spent approximately \$46,000 dollars on transportation improvements, typical of expenditures in the recent past.

### **Funding Assumptions for 2025 Transportation Facility Plan**

The estimated total cost of the 2003-2025 Transportation Facility Plan is \$150,000 in 2003 dollars. Potential funding sources identified for each transportation improvement project in the 2025 Transportation Facility Plan include:

- Real Estate Excise Tax - Funds from home sales to be used for capital or land purchase only
- Mitigation - Any of the available mitigation funds from impact fees, SEPA mitigation, etc.
- Levy - Voter approved levy for reoccurring maintenance
- Bond - Voter approved bond for capital projects
- Grant - Any source of grant funds such as Transportation Improvement Board, federal funds, etc.
- Sound Transit – Sound Transit program funds such as a transit center
- KC/RTID (King County/Regional Transportation Improvement District)- Regional package for voter approval following I-51 or King County capital funds
- Local Improvement District – Tax district supported by the property owners
- SR2 – State funds from State Route 2 projects

Table TR-5 summarizes funding sources for all the projects included in the Transportation Facility Plan. In order for the Town to complete the 2003-2025 Transportation Facility Plan, the town’s expenditures on transportation must be consistent with the Town’s stated project priorities. Furthermore, the Town will need to aggressively pursue federal and state grants for transportation.

**Table TR-5**  
**Revenues Estimated for the 2003-2025 Transportation Facility Plan**

Funding Sources	2003-2025 Revenue Estimates
Real Estate Excise Tax	\$ 3,972
Mitigation	--
Levy	--
Bond	--
Grant	\$ 146,028
Total	\$ 150,000

Source: Town of Skykomish