

SKAGIT



COUNTY

Final

**TRANSPORTATION
SYSTEMS
PLAN**

**A part of the Transportation Element of the
Comprehensive Plan**

February, 2003

June, 2003

Prepared by

Skagit County Public Works Department

Otak, Inc.

KDD Associates

Skagit County Transportation Systems Plan Update

Skagit County Public Works hired ALTA Transportation Consulting to assist with the 2001 update to the TSP. Work began in November 2000 and internal meetings were conducted with staff from Public Works and Planning. A public review and comment period was conducted in February 2001 to gather initial public input regarding the adopted 1997 TSP. Public Works and Planning staff then worked with ALTA to update the TSP with current information. The result of these efforts is the **2003 Transportation Systems Plan Update** presented here.

Skagit County is required to amend the 1997 Transportation Systems Plan (TSP) as per HB 1487, which amended the Growth Management Act to include Highways of Statewide Significance (HSS). The 2001 TSP update also presents an opportunity to make fundamental changes to the methodology used to calculate level of service (LOS) to improve coordination with other jurisdictions, maintain consistency with national transportation engineering standards, and increase efficiency in maintaining the County's transportation network.

EXISTING LEVEL OF SERVICE METHODOLOGY

The Highway Capacity Manual (HCM), published by the Transportation Research Board in Washington, D.C., contains nationally recognized methodology and LOS standards used by engineers and planners in the transportation industry. In 1994, Skagit County Public Works staff believed that the methods contained in the existing HCM (1985 version) were not sophisticated enough to address transportation issues in Skagit County. As a result, a Citizen Transportation Advisory Committee (TRAC) approved an alternative method for calculating concurrency called the *Birdsall Method*, which is based on non-motorized user perceptions of safety as opposed to the physical capacity of a transportation facility. Since adoption of the TSP in 1997, it has become increasingly clear that the Birdsall Method is not as functional as originally envisioned. In addition, the HCM was revised in 1997 and 2000 and has reached a level of sophistication that addresses rural transportation issues in Skagit County. The use of the Birdsall method has created several problems for Skagit County in the administration of the concurrency mandates of the Growth Management Act, including:

- **Lack of consistency with other jurisdictions:** Skagit County is the only local jurisdiction that uses the Birdsall Method to assess the transportation network; all others use methodologies based on the HCM.
- **Complexity for local staff:** The Birdsall Method is not a broadly recognized standard for calculating LOS or concurrency. As a result, Skagit County staff has had a difficult time utilizing this methodology on a daily basis for the purpose of assessing impacts associated with new development.

- **Appropriateness of methodology:** The Birdsall Method may have some continued value for Skagit County in providing an overall assessment of the County road system. Unfortunately, it is not an effective tool for evaluating specific impacts of development proposals on individual roads.

PUBLIC REVIEW PROCESS

Skagit County is currently seeking to involve the public and affected agencies and organizations in a review of the **2003 Transportation Systems Plan Public Review Draft**. Public comment will be received and considered in the development of a 2003 TSP final draft document. Once completed, the 2003 TSP final draft will be forwarded to the Board of County Commissioners for Comprehensive Plan amendment and adoption.

PUBLIC COMMENTS

All public comment regarding the **2003 Transportation Systems Plan Public Review Draft** should be sent via email, if possible, or in hard copy to the address listed below.

pw@co.skagit.wa.us

Skagit County Public Works, 1111 Cleveland Avenue, Mount Vernon, WA
98273

* **Both the 1997 Transportation Systems Plan and the 2003 Transportation Systems Plan Public Review Draft are available for review online at www.skagitcounty.net**

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For

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in conjunction with the
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MAPS

- 1A/1B Skagit County Road Inventory
- 2A/2B Functional Classification
- 3A/3B Freight and Goods Transportation System (FGTS)
- 4A/4B Transit Service
- 5A S.C.O.G. Transportation Model Forecasts

GLOSSARY OF ACRONYMS

ADT = Average Daily Traffic: This is the average amount of traffic (average numbers of vehicles) crossing one location on a roadway within a 24 hour period. Generally the ADT is a yearly average. ADT and other traffic level measurements differ from VMT in that they measure traffic crossing at one point while VMT measures the total miles driven along a certain stretch of a roadway within a given period of time. The confusion between these two terms stems from the fact that a specific ADT (a point location measure) is often assigned to a whole section of a roadway.

BNRR = Burlington Northern Railroad: This is a company which owns the main north/south line as well as other rail lines throughout Skagit County. BNRR provides rail freight service to much of the U.S. and to parts of Canada. It recently merged with the Santa Fe Railroad, forming the Burlington Northern and Santa Fe Railroad.

BST = Bituminous Surface Treatment: A material often used to pave county roads. The paving process involves oiling the road surface, applying crushed gravel, and allowing it to set through the action of normal traffic.

CAPP = County Arterial Preservation Program: A county road funding program by the County Road Administration Board which focuses on pavement preservation projects.

CIP = Capital Improvement Program: A plan showing specific expenditures for planned capital improvements over a specific time period, often for six years.

CRAB = County Road Administration Board: A state agency, with a governing board and a support staff, responsible to help the counties fulfill their responsibilities in the maintenance and improvement of county roads.

CRIS = County Road Information System: A computerized database containing various road related inventories including the sign inventory, and the road log among others. This system which requires county implementation was developed and is supported by CRAB.

DNR = Department of Natural Resources: This is a state agency which, among other responsibilities, manages the Forrest Board lands of Skagit County. The revenue from timber sales from these lands is allocated between the County and DNR (for their management activities) at approximately a 75%-25%.

EES = Economic & Engineering Services: A consultant firm which has done work for agencies within Skagit County. EES forecasts are were developed in conjunction with both the County's comprehensive water plan and the land

use planning activities of the local jurisdictions doing GMA planning. EES created and revised the County Coordinated Water Systems Plan

EDA = Economic Development Administration: A federal agency involved in funding projects which provide permanent jobs and other economic development benefits to an area.

EIS = Environmental Impact Statement: A written report documenting showing potential environmental impacts of certain projects, plans, or programs, as required by state law.

FEMA = Federal Emergency Management Administration: A federal agency which is noted for its flood mapping and for providing disaster relief in times of flooding and other natural disasters.

FGTS = Freight and Goods Transportation System: A system of streets, roads, and highways formally designated by the State as current truck routes.

FHWA = Federal Highway Administration: A federal agency which is involved in transportation funding programs such as the STP program from ISTEA

GMA = Growth Management Act: Washington State Law, enacted in 1990 and 1991, which deals with comprehensive planning requirements for cities and counties.

HCM = Highway Capacity Manual: A document which presents a collection of techniques for determining lane capacity and the best methodologies available (at the time of publication) for determining congestion based quality of service (or level of service) for streets, roads, and highways.

HCP = Habitat Conservation Plan: A plan being developed by DNR to ensure that important natural habitats within lands under the jurisdiction of or managed by the State will be preserved in an environmentally sound manner into the future.

ISTEA = Intermodal Surface Transportation Efficiency Act: The federal transportation bill of 1991 which provided a new, more flexible method for local and state transportation projects to receive federal funding.

LOS = Level of Service: Generally applied to streets, roads and highways, this term is a measure which describes the functional adequacy of a transportation facility with respect to the level of traffic and to traffic congestion. LOS can be measured in various ways, including traffic level per lane, percent time following, average speed, and percent time delay among others. Traditional LOS measures come from the Highway Capacity Manual and include an LOS ratings scale from A to F.

MP = Mile Post: It is used as a part of a method to log the location along a street, road or highway. From a starting point of 0, any location along a road can be specified as a distance in miles (the mile post reading) from the starting point.

OCD = Office of Community Development: This is a relatively new state agency which combines the functions of the previous Department of Trade and Economic Development and the Department of Community Development.

OEDP = Overall Economic Development Program (or Plan): This is a local economic development plan developed in conjunction with the EDA. Several federal agencies require local projects to be in the OEDP in order to be eligible for funding.

OFM = Office of Financial Management: This is a state agency which, among other things, provides yearly population estimates by city and county and produces 20 year population projections by county.

PMS = Pavement Management System: This is a comprehensive system to monitor pavement condition of a jurisdiction's road network. It involves a survey method to rate the pavement condition on road segments, a computerized database to store and manipulate the data, and modeling methods to predict pavement deterioration.

RAP = Rural Arterial Program: A county road project funding program by CRAB in which projects compete for funding with those from neighboring counties based on a number of specific physical and other criteria.

RCW = Revised Code of Washington: All state laws of a general and permanent nature.

RTPO = Regional Transportation Planning Organization: An organization of cities and one or more counties (with representation from ports, tribes and the state) whose goal is to coordinate transportation planning and funding decisions among jurisdictions.

SCOG = Skagit Council of Governments: This is an association of local governmental entities which is involved in intergovernmental coordination, particularly in the area of economic development. SCOG staff responsibilities include regional transportation planning.

SIC = Standard Industrial Classification: This is a widely used hierarchical method to organize and classify businesses and other job producing activities into homogeneous groupings for analytical purposes. A SIC code can be anything between an one digit and a six digit number, depending on level of detail.

SKAT = Skagit Transit: The local transit system in Skagit County which is supported by local sales tax revenue and by motor vehicle excise tax revenue, both of which are collected by the State. This agency also provides demand responsive transportation services to the elderly.

SR-20 = State Route 20: This is the standard terminology for referencing state highways.

STP = Surface Transportation Program: This is one of the funding programs of ISTEA which provides substantial resources for county and city transportation projects. Some of the specific STP categories are "rural" STP funds, "urban" STP funds, and "enhancement" funds, among others.

TAZ = Traffic Analysis Zone: A TAZ is a small geographic area for which population, housing and employment data are collected for use in the development and calibration of a traffic model.

TDM = Transportation Demand Management: Methods or strategies aimed at changing travel behavior by reducing the demand for single occupancy vehicle travel rather than by expanding transportation facilities to meet travel demand. The strategies can include such things as expanding transit or ride-sharing options, changing parking policies, promoting work hour changes, and providing for telecommuting.

TIP = Transportation Improvement Program: A plan or schedule showing specific expenditures for transportation capital projects over a specific time period, often for six years.

TSM = Transportation System Management: The use of inexpensive capital expenditures and other methods to increase the efficiency and capacity of the transportation system. TSM includes such strategies as intersection signalization, synchronization of traffic signals, the provision of left turn lanes, and the designation of one way streets.

UGA = Urban Growth Area: A city's 20-year growth area, as designated by the county, and in compliance with GMA requirements for comprehensive planning. UGAs are different from the federal "urban areas" which are related to street and road functional classification and are used for transportation project funding eligibility.

V/C = Volume over Capacity: A congestion measure which divides the traffic volume on a specific roadway by its maximum capacity volume. As this ratio approaches 1.0, congestion becomes severe.

VHP = Vehicles Per Hour: A measure of traffic flow on a road, street, or highway which counts the number of vehicles traveling past a specific location in a give hour.

VMT = Vehicle Miles Traveled (or Vehicle Miles of Travel): This is a measure of the miles traveled by motorists in a specific period of time over a specific section of roadway. For instance, to calculate the average daily VMT over a 1.5-mile roadway section, you would multiply the ADT on that roadway section by 1.5 miles. To calculate the peak hour VMT on that same roadway section, one would multiply the peak hour volume by 1.5 miles.

WAC = Washington Administrative Code: Also called agency law. State administrative law related to the activities of public agencies.

WSDOT = Washington State Department of Transportation: This is a state agency which, among others, has responsibility over state highways, over state ferries, and over many transportation funding programs for the counties and the cities.

