

VII. TRANSPORTATION SYSTEM & DEMAND MANAGEMENT

Many of the traditional funding programs for transportation facilities have focused on capital intensive street, road and highway, or other improvements. More and more it is becoming clear that we need to accomplish more with less resources. We need to find ways to make our transportation systems more efficient at moving people and goods in a time of limited funding resources. Two approaches to help do this are transportation system management (TSM) strategies and transportation demand management (TDM) programs.

The Washington State Department of Community, Trade, and Economic Development (CTED) states that *"Transportation system management (TSM) strategies include an array of actions to: a) increase the motor vehicle capacity of existing streets and roads; b) facilitate the use of high occupancy vehicles, thus increasing the people carrying capacity of the street and highway system"*. We can think of TSM as the use of low capital expenditures to increase the capacity of the transportation system. Some of the various TSM alternatives include signalization channelization, signal timing, turn restrictions, bus turn outs, and one way streets. Often the development of park and ride lots are considered TSM measures as well.

Transportation demand management (TDM) is similar to TSM in that such strategies increase the efficiency of transportation facility use. The difference is that the focus of TDM is on reducing the demand for transportation facilities rather than increasing the capacity. The CTED states *"Travel demand is reduced by measures which either eliminate trip making (all day or during the peak) or accommodate person trips in fewer vehicles. Common TDM measures include ridesharing, parking management, flextime, road pricing, HOV facilities, and special events measures."* Since several of the potential measures in Skagit County could be considered either TSM or TDM, they are discussed together below. It should be noted that Skagit County is not currently a "non-attainment area" for air quality. Thus, compliance with 1990 Clean Air Amendments is not required.

A. GUEMES ISLAND FERRY

1. Transportation System Management (TSM)

There are several TSM strategies that could be used to increase the vehicle carrying capacity of the Guemes Island Ferry system, including, but not limited to:

- Maintaining the existing schedule and system management,
- Providing adequate parking facilities near ferry terminals,
- Increasing the number of scheduled ferry crossings, and

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- Adding a “mid-body” to the existing M/V Guemes.

2. Maintaining the Existing Schedule and System Management

The reality of the situation is that the M/V Guemes operates on demand and is already carrying vehicles and passengers during non-scheduled times. In effect, this allows the ferry system to operate in a flexible, efficient, and cost-efficient manner. While this does not guarantee additional vehicle capacity by ensuring drivers that two runs per hour are offered, it allows the Guemes Island Ferry system to offer additional capacity when it is needed most and to save expenses when additional capacity is not needed. This is truly the most cost effective manner in which to operate the Guemes Island Ferry.

If all of the unscheduled ferry crossings were calculated, the existing vehicle carrying capacity and v/c ratio for the M/V Guemes would be greater. Providing additional vehicle capacity when it is needed allows the system to have all of the vehicle capacity that it effectively needs. If the Guemes Island Ferry System continues to be operated and managed in this fashion, then the M/V Guemes has the needed capacity to accommodate the projected growth in vehicle and passenger demand between 2001 and 2015.

3. Providing Adequate Parking Facilities

As noted above, the Skagit County Comprehensive Plan clearly states that it is desirable to reduce vehicle demand on the M/V Guemes. There is no guaranteed method of getting people out of their cars, however. One method of effectively reducing the demand for vehicle capacity is to encourage ferry users to ride as walk-on passengers rather than vehicle drivers. In order to accomplish this, there must be convenient and adequate parking facilities in place near the ferry terminals in Anacortes and on Guemes Island. Skagit County Comprehensive Plan Transportation Element Policy 9A-8.4 specifically states, *“the County shall work with the city of Anacortes, property owners, and residents on Guemes Island to develop adequate parking areas.”*

The need for a parking facility near the Anacortes ferry terminal received very strong support from Guemes Island residents in a public survey conducted in 1990. The updated Guemes Island Ferry Capital Facilities Plan identified the need for a parking facility near the Anacortes terminal as the number one capital facilities priority. The City of Anacortes strongly supports the County's construction of a

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ferry parking lot in conjunction with its efforts to develop a waterfront Guemes Channel City Park at the corner of 6th Avenue and “T” Street. The Guemes Island Ferry Anacortes Terminal Parking Project has been placed on the Skagit County 6-year TIP, Skagit/Island Regional 6-year TIP, and the State 6-year TIP.

In 1997, this project rated high enough in statewide and national competition to receive an ISTEA Ferry Boat Discretionary Grant in the amount of \$155,000. Skagit County used \$109,255 of this grant to purchase a piece of property at the corner of 6th Street and “K” Avenue in the City of Anacortes precisely for this purpose. Public Works is in the design phase of construction for a 70-stall parking facility located approximately 800 feet from the Anacortes ferry terminal building. Total design and construction of this project is estimated to cost an additional \$700,000 with completion anticipated in 2004.

As noted in Chapter 2, the parking facilities on Guemes Island can accommodate up to 60 vehicles. Once the 70-stall Anacortes ferry parking lot is completed, the Guemes Island Ferry system will achieve some balance in available parking facilities. This will provide Guemes Island residents with the option to park a vehicle on both sides of the ferry crossing and reduce vehicle demand on the M/V Guemes. While this may not be an option for some people, it also provides the option of parking a vehicle in the Anacortes lot and carpooling or ridesharing to and from the island with other Guemes Island residents. This new ferry parking lot also has additional potential to reduce vehicle trips on the M/V Guemes for traffic from Anacortes to Guemes Island, but would require additional transit investment for this potential to be realized. (See TDM Public Transit discussion, below)

4. Increasing Scheduled Ferry Crossings

The number of scheduled ferry crossings has increased from 121 per week in 1990 to 125 per week in 2000. This has translated to a 6,292 increase in the total vehicle carrying capacity of the M/V Guemes. The current Guemes Island Ferry schedule translates to a vehicle carrying capacity of 143,000 standard-sized vehicles for the M/V Guemes. As can be seen in Figure 3-1 (Chapter 3), linear regression analysis projections indicate that this level of vehicle carrying capacity will be exceeded in the year 2010. If all of the unscheduled ferry crossings were calculated, the existing vehicle carrying capacity of the M/V Guemes would be greater.

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Increasing the number of scheduled ferry crossings can increase the total vehicle carrying capacity of the M/V Guemes. In fact, if the M/V Guemes crossed Guemes Channel twice per hour during the existing hours of operation, 73 additional crossings could be made per week. This would add 83,512 vehicle spaces, or 58% more capacity, for a total annual carrying capacity of 226,512 vehicles. An additional option is to extend the existing weekday operating hours between 6:00pm and 9:30pm. This would result in an additional 32 scheduled trips per week, or an additional 36,608 vehicle spaces per year.

In order to effectively reduce vehicle congestion on the M/V Guemes, it may be necessary to increase the number of scheduled ferry crossings during peak traffic hours. Due to the seasonal peak of ferry demand, it may only be appropriate to add crossings to the schedule during the busiest months of the year. In August 2000, the heaviest vehicle traffic hours are between 6:30am and 8:00pm. During the week, 9 ferry crossings could be added to the current schedule at 9:30am, 10:30am, 11:30am, 12:00pm, 12:30pm, 2:00pm, 3:00pm, 6:30pm, and 7:30pm. This would result in an additional 63 crossings per week, which would add 72,072 vehicle spaces to the total vehicle capacity of the M/V Guemes. This is far in excess of what is needed during the planning period for the 2001-2015 Guemes Island Ferry Capital Facilities Plan.

Increasing the number of scheduled ferry crossings, either seasonally or annually, would require additional crew and would result in additional fuel and maintenance costs. Additional ferry crossings could be added only during peak seasonal traffic or on a regular weekly basis. This approach probably represents the lowest capital expenditure solution to guaranteeing additional vehicle capacity on the M/V Guemes and reducing overall vehicle congestion.

5. Adding a “mid-body” to the M/V Guemes

The M/V Guemes was designed to allow for expansion, if necessary. The existing 124-foot long vessel can be cut in half and have a 20-foot long “mid-body” welded in place to expand the vehicle and passenger carrying capacity of the vessel. The total length of the M/V Guemes would increase to 144 feet, the vehicle capacity would increase to 28, and the passenger capacity would increase to 45. Adding 6 vehicle spaces to the M/V Guemes represents a 27% increase in onboard vehicle capacity.

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Given the existing 125 scheduled ferry crossings per week, adding a “mid-body” to the M/V Guemes would add 39,000 vehicle spaces per year and increase the total annual vehicle carrying capacity to 182,000. This would provide vehicle capacity far in excess of what is necessary during this planning period. A larger vessel would also potentially reduce vehicle congestion during peak operating times by allowing more vehicles to board the ferry without altering the existing ferry schedule.

The “mid-body” expansion is estimated to cost \$1.5 million (in 2001 dollars) and would require a 3-week haulout to complete the necessary work. Passenger-only ferry service would be provided in place of vehicle service, as is normal procedure during the mandatory 2-week haulouts required by the U.S. Coast Guard every 18 months. The entire \$1.5 million capital expenditure for the addition of the “mid-body” is an eligible expense under the Ferry Reimbursement Fund. There are several less expensive methods to increase the vehicle capacity of the M/V Guemes and therefore, it does not make economic sense to add a “mid-body” within the 2001-2015 planning period.

6. Transportation Demand Management (TDM)

There are several TDM strategies that could be used to decrease the vehicle demand on the Guemes Island Ferry system, including, but not limited to:

- encouraging car-pooling and walk-on passengers;
- encouraging increased public transit service and bus shelters at the Anacortes terminal;
- pricing policy (ticket price incentives and disincentives); and
- exploring the potential for a Guemes Island public transit service.

These TDM strategies should be used in combination with one another to be most effective.

7. Encouraging Car-Pooling and Walk-On Passengers

The Skagit County Comprehensive Plan Transportation Element Policy 9A-8.2 states *“To meet future increases in demand, the County shall increase service capacity of the Guemes Island Ferry by: (a) encouraging car-pooling and walk-on passengers; (b) increasing the frequency of ferry runs based on demand; and (c) considering*

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additional ferry capacity if the aforementioned procedures fail to accommodate demand.” The intent of this policy gives clear priority to TDM strategies for transforming vehicle trips into passenger trips. Car-pooling reduces the number of single-occupant vehicles demanding ferry service. Due to the relatively small size of Guemes Island, this strategy is very well-suited to reducing vehicle trips on the Guemes Island ferry.

8. Increased Public Transit Service and Bus Shelters at the Anacortes Ferry Terminal

Skagit Transit (SKAT) currently provides public transportation service to the Anacortes ferry terminal at the corner of 6th Street and “T” Avenue. As noted above, this is the future site of the City of Anacortes Guemes Channel Waterfront Park. SKAT Bus 410 stops to pick up passengers between 7:45am and 6:45pm on weekdays and between 9:45am and 4:45pm on weekends. As of May 2001, bus stop facilities do not exist. A green SKAT bus stop sign is posted, but there is no bench or shelter for waiting passengers.

The public bus transit service provided by SKAT correlates well with the Monday - Thursday operating hours of the Guemes Island Ferry, but does not correlate well with the extended operating hours of the Guemes Island Ferry on Fridays and weekends. Public transit service provides an important alternative to the private automobile for ferry users and increasing the availability of this service could help to reduce vehicle demand on the M/V Guemes. The construction of covered bus shelter facilities may make public transit a more attractive alternative to passengers as well.

SKAT has suffered extreme budget cuts after voter approval of Initiative 695 in November 1999 and does not have the financial resources necessary to fund increased service or bus shelter construction. In fact, SKAT was forced to implement a 50-cent fare on all of its public transit routes in May 2001 simply to cover operating expenses. Funding for increased service and the purchase and construction of bus shelter facilities may be available through state rural mobility grant funding. Skagit County may be able to work in partnership with SKAT to secure these improvements.

9. Pricing Policy

Pricing policy is a TDM strategy that Skagit County can and has used to provide an incentive for ferry users to ride the ferry as walk-on

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passengers rather vehicle drivers. The Skagit County Comprehensive Plan Transportation Element Policy 9A-8.3 states *“In making all decisions related to the Guemes Island Ferry, the County shall balance the needs of the Island residents, the non-resident property owners, and the County citizenry as a whole.”* In addition, policy 9A-8.5 specifically states *“The County shall continue to provide safe and adequate ferry service between Anacortes and Guemes Island, and a fare structure designed to recover as much operating cost as practical from the users.”* The intent of these policies is to provide adequate ferry service to Guemes Island in a financially sustainable manner, if possible.

In 2001, the cash rate to travel on the Guemes Island Ferry is \$1.25 for a walk-on passenger and \$5.25 for a vehicle driver. This pricing policy results in a 76% cost savings for those who choose to pay cash and ride the ferry as a walk-on passenger. In addition, frequent rider passes for walk-on passengers are priced 60% below the price of a frequent rider pass for vehicle drivers. As noted in Chapter 4, if past and current growth trends continue, vehicle demand for the M/V Guemes is projected to outpace walk-on passenger ridership over the next 15 years. Pricing policy is a tool that Skagit County can continue to use to provide both incentives and disincentives to reduce the vehicle demand on the M/V Guemes. Pricing policy is most effective when used in conjunction with other TDM strategies, such as providing public transit service.

10. Potential Guemes Island Public Transit Service

If a public transit service could be established on Guemes Island and synchronized with the ferry schedule, it would provide a viable alternative to the private automobile on Guemes Island, reduce vehicle demand on the M/V Guemes, and reduce vehicle traffic on Guemes Island roads. Ferry users could park their vehicles at the Anacortes lot, ride the ferry as walk-on passengers, and travel via public transit on Guemes Island. This would benefit Guemes Island residents and non-residents alike. Initial funding for this type of public transit may be available through a state rural mobility grant and could be sought in partnership with Skagit Transit.

B. RIDESHARING PROGRAMS

There are three types of existing programs in Skagit County that promote ridesharing. One is vanpooling, another is express busses, and the third is the creation of park and ride lots.

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1 . Vanpooling

It has been estimated that about 500 Skagit County residents work at the Boeing Everett plant. This makes Boeing one of the top two employers for Skagit County residents. Many of these Boeing workers live in the Mount Vernon/Burlington/Sedro-Woolley area. With the concentration of workers both living in one area and working another area a significant distance away, a demand existed for sharing rides to and from work. To help fill this need, Community Transit of Snohomish County has established a program where it leases vans for the purpose of vanpooling. Since Community Transit serves vanpools that have either a home or a work location in Snohomish County, the Boeing workers at living in Skagit County qualify for the program.

As of December 31, 2000 there were 20 vanpools using Community Transit lease vans traveling between Skagit County (home location) and Snohomish County (work location). In addition, two Community Transit lease vans depart from Bellingham each day and stop in Skagit County to pick up employees working in Snohomish County. Most if not all are going to the Boeing Everett plant and the number of vanpools has fluctuated depending on how the Boeing shifts are scheduled. However, steady growth has occurred and Community Transit is the third largest leased vanpool provider in the United States.

2. Park and Ride Lots

The Washington State Department of Transportation has, for a number of years, been involved in the development of park and ride lots up and down the 1-5 corridor. The purpose of these lots is for members of both vanpools and carpools to congregate, leave their cars, and share rides primarily for work trips. The WSDOT program in Skagit County has not been nearly as extensive as those in King County and in Snohomish County.

Currently there are four formally established park and ride lots in Skagit County:

- Burlington near the I-5 George Hooper Interchange
- Sedro-Woolley at the SR-20/Cook Road
- Mount Vernon at the Kincaid St./I-5 Interchange
- March Point on SR-20

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SKAT has helped established the above mentioned park and ride lots at the Cascade Mall, in Concrete, in Sedro- Woolley, and at the Hamilton Baptist Church for its express bus service. The Cascade Mall lot handles, by far, the most users.

C. TULIP FESTIVAL PROGRAMS

The Skagit Valley Tulip Festival has grown in popularity over the past ten years to where it is now one of the major festivals in the year in Western Washington. With this growth has been a growth in traffic congestion in the Skagit Flats during the festival and the tulip bloom. The worst traffic congestion experienced in Skagit County each year takes place during this time period. (See discussion in Chapter II.)

For the past several years, Skagit County Public Works Department, in conjunction with the Sheriffs Department, the Emergency Management Department and others has put together a traffic control plan for the Tulip Festival. This plan has contained several TSM provisions including the establishment of field parking lots by the growers, parking restrictions on selected roads, turning restrictions, and personnel to direct traffic at key intersections. These efforts have been very effective in managing the enormous amount of traffic generated by the festival.

Related to the County's efforts at managing the Tulip Festival traffic has been other efforts to manage and encourage the use of bus transit. Tulip Festival staff coordinates with the tour companies who bring busloads of tourists in order to ensure that the busses stop and park at appropriate locations. Over the past several years, a special Tulip Transit service has also been provided during the festival. This is a system where drivers can park at remote lots and ride a bus to the fields and display gardens.

D. OTHER PROGRAMS

The County is involved in two other programs that could be considered TSM or TDM. The County employees working at the Courthouse complex in downtown Mount Vernon have always had to pay to have a parking space. With the advent of SKAT bus service to the Mount Vernon, the County increased its parking fees for its employees, creating an additional incentive to use the bus.