SATP PLAN ASSUMPTIONS

AVAILABLE FUNDING

$30 Million per year available for new construction.
- $5 million for new airports, and
- $25 million for new or extended road, ferry and terminal improvements.

$50 million per year available for refurbishment and deferred Maintenance.
- $10 million for airport improvements
- $15 million for ferry improvements, SE Alaska System,
- $25 million for roadway improvements, including local roads on state system

SATP must identify all necessary improvements so that we can advocate system development priorities and advocate additional funding and implement projects when funding is available. It is important to identify affordable near term improvement priorities that can best produce needed improvements in a reasonable time frame – priorities that are consistent with a long range transportation plan. We must acknowledge that available funding may limit transportation expenditures to maintenance and improvement of existing infrastructure and existing vehicles of transportation. However, if we limit our priorities to maintenance and replacement, we will never make any significant changes to the system.

Result: System improvement implementation plans (all modes) exceeding $300 million over the next ten years are not considered realistic. The availability of funding for maintenance and new infrastructure may become more limited, forcing hard choices. Short and long term transportation system plans will become more important in the decision making process. Major infrastructure decisions must be considered in context of an overall system improvement plan.

FUEL COSTS

Fuel costs will rise significantly over the next decade.

Result: Less fuel-efficient vehicles will eventually be replaced with more efficient motor vehicles, boats, and aircraft. Rising new car prices will limit the rate of replacement and extend the use of currently owned vehicles and the purchase of used vehicles imported into the state. The volume of traffic over roads, ferry and air routes will decline. The length of trips will become shorter and more planned. Commercial service providers will adjust vehicles of transportation to best fit the traffic demand over each route. Scheduled carriers will provide fewer flights, sailings, or trips using aircraft, boats and buses sized to traffic volumes over a given route for a given time of year and a given time of day. Ticket and boarding lines will get longer and a percentage of travelers during a peak demand period will have to defer their trip to the next flight, sailing or bus.

Some drivers will adopt more fuel efficient driving habits, such as slower acceleration and lower overall speeds below posted speed limits, which will frustrate other drivers caught behind them.

LABOR COSTS

Labor costs will rise over the next decade. In the near term wage and benefit concessions have occurred in the airline industry and labor costs in the public transportation sector have continued to increase. In the long term transportation labor costs will increase at varying rates dependent on competition and the need to be profitable.

Result: Pressure will increase to reduce crew costs to the bare minimum required for passenger safety and to raise fares. Amenities on board scheduled carriers such as airlines and ferries will be reduced and/or require additional fees and higher fares to pay for the labor.

CONSTRUCTION MATERIAL COSTS

Construction material costs will rise significantly over the next decade in step with energy costs.

Result: Increased taxes to pay for maintenance and improvement of local and state publicly maintained infrastructure and increased fares by air carriers. Public ferry and transit systems generally do not attempt to recover capital cost through fares. Operators of public transit systems generally transfer the capital cost to the taxpayer. Ultimately the user/taxpayer has to pay the bill.

ENVIRONMENTAL REGULATION

Increased awareness of the adverse effects of pollution will result in increased regulation of transportation related environmental impacts. Regional and state-wide greenhouse gas reduction plans and complete street policies will become regulatory and will likely include mandated reductions in Vehicle Miles Traveled (VMT), emissions and fuel consumption. These mandated reductions would affect not only highways and personal vehicles but also marine and aviation sectors.

Climate change projections of rising sea levels will not likely affect the Southeast region, as our land mass is projected to rise at a rate sufficient to counteract sea level rise.

Proposed increases of restrictions on new road construction upon federal lands would be a tremendous limiting factor on future transportation corridors within

Southeast – a region nearly encompassed by the Tongass National Forest with communities surrounded by national forest land.

Result: There will be increased demand for accommodating and promoting non-motorized transportation as well as energy-efficient vehicles. This includes providing charging stations for electric vehicles and improving year-round maintenance of bike paths and travel lanes. Existing ferries, at the end of their service life, will be replaced with more fuel and labor efficient vessels. Existing roads with limited right-of-ways will be placed on "road diets", a reworking of the right-of-way that can include narrowing vehicle lanes and on-street parking, reducing speeds and adding center turn lanes, to better accommodate bike lanes and pedestrian facilities. Ferry service will be reduced to the level necessary to just meet demand or provide an established basic minimum service, if demand is well below available ferry capacity. New road construction costs will rise with the mandated inclusion of sidewalk and bicycle facilities.

TRANSPORTATION COSTS

Transportation costs will rise with energy costs over the next decade. Over the long term transportation cost increases will be mitigated by improvements in propulsion and vehicle design, but replacement of costly equipment will occur slowly over many years.

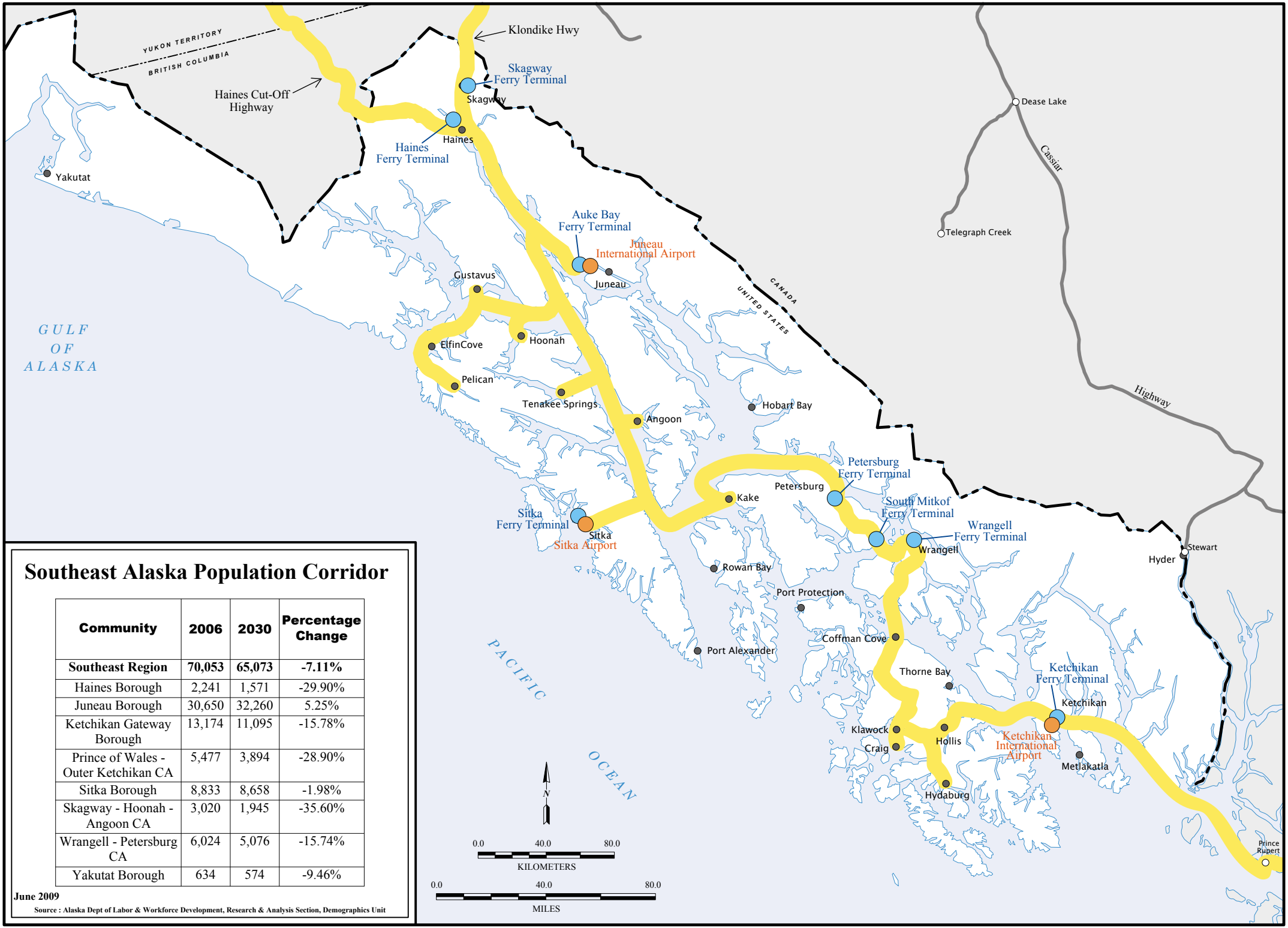
Result: A more costly transportation system in the coming decade, but eventually a more efficient transportation system. The cost of these improvements will be paid by new vehicle owners through purchase price, users of public infrastructure through fees, and transportation services through fares. Municipal, state and federal public treasuries will fund infrastructure development and transportation services.

POPULATION GROWTH

Southeast Alaska population will decline over the next decade. Juneau and Sitka populations are forecast to experience minimal growth during the period.

Basis-reference: Alaska Economic Trends, Alaska Department of Labor, October 2007 Population Projections, 2007 to 2030. Southeast Alaska was the only Alaska region forecast to lose population over the next twenty years – 0.31%.

Result: A flat to declining resident travel demand for transportation within and between Southeast communities and to areas outside the region.



Southeast Alaska Population Corridor

Community	2006	2030	Percentage Change
Southeast Region	**70,053**	**65,073**	**-7.11%**
Haines Borough	2,241	1,571	-29.90%
Juneau Borough	30,650	32,260	5.25%
Ketchikan Gateway Borough	13,174	11,095	-15.78%
Prince of Wales - Outer Ketchikan CA	5,477	3,894	-28.90%
Sitka Borough	8,833	8,658	-1.98%
Skagway - Hoonah - Angoon CA	3,020	1,945	-35.60%
Wrangell - Petersburg CA	6,024	5,076	-15.74%
Yakutat Borough	634	574	-9.46%

June 2009

Source : Alaska Dept of Labor & Workforce Development, Research & Analysis Section, Demographics Unit

INCOME GROWTH & PERSONAL BUYING POWER

Income will increase with inflation in the larger communities that host government centers and service, manufacturing, and resource extraction industries over the next decade. Smaller communities will struggle to support existing populations. Personal buying power or the amount of discretionary per-capita income will depend on the relationship of individual income growth versus the increase in overall cost of living in a community during any given period. The world demand for fuel over the next decade will likely be a major factor in this relationship and the ability to afford to travel.

Result: The ability of some residents in the region to afford to travel as often as in the past may be limited by the increased cost of living and the increased cost of transportation. System efficiencies will be sought to mitigate rising transportation costs.

INVESTMENT IN PERSONAL TRANSPORTATION VEHICLES

A strong public desire to maintain local mobility will likely result in a continuance of high vehicle ownership over the next decade. A private motor vehicle, boat and/or aircraft represent the degree of investment most individuals willingly make to maintain significant personal mobility. Vehicle investment tends to be second only to home ownership in regards to the size of personal investments. Besides vehicle costs, the operator must include maintenance, insurance, and depreciation. Currently, even communities with limited surface transportation options have car ownership rates comparable to communities with roads.

As fuel prices continue to rise, residents purchasing new and used vehicles are more likely to put added emphasis on fuel economy. Fuel efficient vehicles tend to be smaller, with less power, two-wheel drive, and have lower suspension. However, some residents will continue to require and/or prefer larger vehicles.

Basis-reference: Alaska Department of Administration, Division of Motor Vehicles, Motor vehicle registrations by community.

Result: Many Southeast Alaskans have already incurred the cost of vehicle ownership, and many own more than one vehicle. Residents must pay an air fare or ferry fare to travel to another community and a tariff to transport their car or truck, if they desire to travel with their own vehicle. Public pressure will continue to exist for construction of additional road connections, shortened ferry routes where practical and improvements to and better maintenance of existing roads. Pressure will continue to exist in communities with few roads to extend the local road system into the forest. A notable exception is Tenakee Springs – residents are in opposition to any road connection to their community. Owners of expensive fuel-efficient vehicles with two wheel drive, less power and lower clearances, will demand better

maintained roads, more frequent snow removal, and roads with lower vertical grades.

DEFERRED MAINTENANCE AND VEHICLE REPLACEMENT

Limited funding for infrastructure maintenance will increase the level of deferred maintenance over the next decade. The average age of motor vehicles may decline with increased replacement of old less fuel-efficient vehicles with more energy efficient vehicles. Some owners of multiple vehicles may not replace second and third vehicles.

Airlines will strive to replace less fuel-efficient aircraft; however, airlines will be slow to replace expensive existing aircraft. The state will strive to replace an aged ferry fleet but fleet replacement costs will limit the state's ability to replace large vessels with similar ships. The state will install technological improvements in existing vessels where feasible to enhance vessel performance in the interim.

Result: The state and commercial carriers will continue to maintain necessary transportation infrastructure in response to the public demand for transportation at increased cost and increased fares and user fees/taxes.

A state-wide greenhouse gas emission reduction plan will be written. The state may be required to establish greenhouse gas emissions for both the highway and ferry system. Gas emission standards could present both restrictions in ferry service and increased cost to the ferry system.

TRAFFIC GROWTH

A forecasted flat to declining regional population growth rate coupled with increased fuel and an anticipated increase in the overall cost of transportation over the next decade will hold down regional traffic growth. Travel by individual motor vehicle will continue to be the preferred mode of transportation for local and intermediate range trips between surrounding communities via road and ferry systems. Local transit systems will experience increased ridership by the young, elderly and low-income segments of population in response to increasing cost to own and operate a private motor vehicle. Private ownership of boat and aircraft will likely decline in response to increased fuel cost.

Air will continue to be the preferred mode of travel over long distances.

Barge will continue to be the preferred mode of transporting freight and food.

Ferry will continue to be the preferred mode of transporting personal vehicles between communities and outside the region. The ferry will be the preferred low cost mode of passenger travel between communities.

Result: Commercial carriers will focus on reducing excess capacity by reducing number of scheduled trips and deploying vehicles and aircraft that most closely match the seasonal traffic demand. Public providers of infrastructure will emphasize maintenance of existing facilities with improvements directed to increased transportation efficiencies, sustainability, and mobility.

LEVEL OF SERVICE BY SCHEDULED CARRIERS

Air, barge, ferry and transit operators will adjust capacity and frequency of service to match traffic demand. Airlines and freight carriers adjust capacity through use of smaller vehicles, smaller containers, and reduction in scheduled service frequency. Carriers consider customer needs in terms of capacity and service. The characteristics of a carrier's vehicle (aircraft, truck, bus, containers, barge, and vessel) fleet; current customer commitments/contracts; and cash flow may limit the carrier's options for matching capacity to customer demand. A carrier with large vehicle fleets with a mix of vehicles ranging from small to large can more easily adjust capacity by deploying smaller vehicles over a given scheduled route. A carrier with a fleet of large vehicles and few smaller vehicles can only reduce capacity by reducing the level (frequency) of service over a given scheduled route.

To operate efficiently without severely compromising off-peak service, a carrier serving a scheduled route with a high seasonal demand must maintain a fleet of vehicles sized to address the off-peak capacity, as well as peak season capacity requirements. The ideal fleet configuration of a carrier serving a route with a high seasonal demand is the ability to add and remove units of vehicle capacity over the seasonal cycle and provide an acceptable level of service during the off-season. Pressure to adjust capacity to just meet traffic demand will increase as fuel and labor costs increase. Regulatory pressures to reduce the carbon foot print of transportation will likely drive carriers to lose excess capacity.

Result: Commercial service providers will adjust vehicles of transportation to best fit the traffic demand and situation over each route. This will be accomplished by both employing fleets of smaller vehicles and/or reducing frequency of service. Reductions in capacity can support fare increases by commercial carriers required to make a profit in response to increased operation and maintenance cost. Reductions in excess capacity can support public carriers in holding down the rate of fare increases in response to increased operation and maintenance cost. It can also allow extending service to other areas, if demand warrants. Rising cost tends to exert pressure to reduce service and increase fares.

Scheduled commercial carriers will provide fewer trips using vehicles sized to traffic volumes over a given route for a given period. To the degree carriers limit capacity to ensure greater seat occupancy, lines will be longer and a percentage of travelers during a peak demand period will have to defer their trip to the next flight, sailing or bus.

Scheduled publicly financed carriers, such as, municipal bus systems and the Alaska Marine Highway System are required to provide the level of service funded. While public transportation systems are subsidized services, they are accountable to local and state legislators to operate efficiently and recover capital, operating and maintenance costs to the extent considered reasonable by the public ridership. Unbudgeted rising fuel and labor expenses can result in reductions in service and surcharges over and above scheduled service and fares. Public transportation systems must operate within their appropriated budgets.

TRANSPORTATION MOBILITY TRADEOFFS

Transportation mobility is a function of frequency of opportunity to travel, affordability, reliability, convenience, travel time and connectivity of modes and schedules.

Demands for 90 to100% weather reliable transportation service, even during the most severe weather conditions, can limit a system's capability to provide frequent service by driving the service provider to acquire larger aircraft and ferry boats. The demand for comfortable transportation and more amenities also tends to favor larger planes and ships. A carrier with a fleet of larger vehicles may be able to provide more comfortable and reliable service during periods of severe weather. A carrier with a fleet of larger vehicles may be able to provide more efficient service during periods of peak traffic demand, but will certainly provide less efficient service over the year and provide a much lower level of service in terms of service frequency and cost of service throughout the year. Ironically, a carrier with a fleet comprised of smaller sized aircraft or vessels that are better suited to off peak demand with less stringent but reasonable weather performance specifications results in a larger fleet in numbers to service the peak season demand and thus provide a higher frequency of service over the entire year. A carrier with a more numerous and versatile fleet will also be better able to substitute aircraft or vessels that unexpectedly must be taken out of service. This fleet redundancy provides for greater overall system reliability. In summary:

A. Larger shuttle ferries and aircraft provide more reliable and comfortable service, and
    a. More weather reliable,
    b. Smoother ride,
    c. Provides room for additional amenities,
    d. Lower level of service frequency,

e. Low seat and vehicle deck occupancy in off season,
f. Higher system capital, operation and maintenance cost.

B. Smaller Shuttle Ferries and aircraft enable more frequent and efficient service.
   a. Enables scheduling more shuttle ferries and more frequent trips over a given route with ferry boats deployed from both ends of the route simultaneously, during peak periods,
   b. Enables route service coverage to continue, if a single boat/aircraft goes out of service,
   c. Enables vessel capacity to be added or reduced to more efficiently match seasonal demand,
   d. Enables lower cost overall per passenger mile by enabling a closer match between demand and capacity over the entire year,
   e. Allows more frequent service during annual vessel overhauls, if demand warrants.

Result: Alaskans will need to choose between the above two mobility regimes. Larger, more comfortable and weather reliable ferry boats OR smaller, more affordable but less comfortable ferry boats that deliver a higher level of service frequency at more affordable fares.

A HIGHWAY SYSTEM TO SUPPORT BASIC VEHICLE MOVEMENT NEEDS ALONG COASTAL ALASKA

The primary purpose of the Alaska Marine Highway System is to move motor vehicles between communities along coastal Alaska and between Alaska and the continental highway system where no land highway connection exists.

The Alaska Marine Highway System currently duplicates the highway connection between Prince Rupert, British Columbia, the Pacific Northwest, and the Lower 48 states. It also duplicates BC Ferries service between Prince Rupert and Port Hardy and the Northwest Highway on Vancouver Island and ferry connections across the Straits of Juan de Fuca to the mainland. Both of these connections are funded by the government of British Columbia at no expense to Alaska.

The AMHS provides the direct ferry connection from Ketchikan to Bellingham, Washington at significant cost in terms of service and dollars to the rest of the ferry system. In fiscal year 2008 the cost of ferry service between Ketchikan and Bellingham was estimated at $7.5 million in excess of revenue. During the year the mainline ferry capacity deployed over the Ketchikan to Bellingham link could have provided an additional 52 mainline ferry round trips through the region, if it would have been deployed between Prince Rupert and Skagway resulting in increased connectivity between Southeast communities. Most Alaskans fly and rent a car at their destination down south.

The Alaska Marine Highway System also duplicates the Alaska Highway connection between Southeast Alaska and Interior Alaska via the Haines Highway and to the Lower 48 states by operating ferry service across the Gulf of Alaska between Juneau and Whittier. This connection does benefit Yakutat with a ferry connection to Juneau and Whittier (Anchorage). While Congress has funded improvements to the Alaska Highway and Haines Highway, the Canadian federal government pays for the maintenance of these highways through Yukon and the Province of British Columbia contracts for the operation and maintenance of BC highways and contracts with BC Ferries for provision of ferry service. The State of Alaska is currently duplicating the above highway connections for the convenience of a few and at significant cost, even though reasonable transportation options exist for movement of vehicles and passengers.

Comparative Facts:
Travel between SE Alaska and Lower 48 States (Number of Passenger 2007)

Mode	Passengers	Pax %	Pax-Miles	Pax-Miles%
Via Bellingham,	27,263	4.8%		
Ferry,	47,840	8.3%	25,633,851	5.5%
Air Seattle	525,362	91.7%	440,810,281	94.5%

Ketchikan – Bellingham AMHS Fares Summer 2009

Adult Passenger $239 one-way+ state subsidy per passenger FY'08 $274 one-way= $513

19' Vehicle $617

Round trip cost: $1,712 (passenger) Ketchikan – Seattle Alaska Airlines Fares June 2009, including all taxes,

Passenger month advance one-way coach $218
Passenger 14 day advance one-way coach $258
Passenger 7 day advance one-way coach $308

SEATAC Airport 7 day Economy Rental Car Rates:

Company	Rent	Fees & Taxes	W/O Insur. Sub. Total	Insurance	Total Incl. Insur.
Budget	409.44	175.80	$585.24	188.93	$774.17
Avis	428.44	181.97	$610.41	188.93	$799.34
National	500.45	229.60	$730.05	183.92	$913.97
Alamo	504.79	231.00	$735.79	183.92	$919.71

Round trip cost: $1,362 (average – passenger)

Result: Duplication of highway connections at significant expense where reasonable transportation alternatives exist.

IMPROVE SURFACE CONNECTIVITY BETWEEN SOUTHEAST ALASKA COMMUNITIES – a PRIORITY?

Southeast Alaska enjoys good air and barge service within the region and to Interior Alaska and the Lower 48 States. However, highway travel between communities within the region is often restricted to infrequent ferry service and mainline ferry routes that act as interstate bypass routes insofar as (with the exceptions of Ketchikan and Juneau) very few passengers disembark until they are at their destination or have travelled all the way through the region without getting off in between. While the mainline ferry service is convenient for the through traveler, this service does not support the local independent tourist industry to its full potential. Many travelers are reluctant to disembark because they are not prepared to commit the amount of time they would be stuck in a community until the next ferry arrives to carry them on their way.
Residents in outlying communities rely on the ferry system to travel to the region's commercial centers to buy food and necessities, visit health care providers, attend sporting, school and cultural events, and to transport their car to a community with vehicle maintenance services. Most often, trips via ferry are planned to address multiple needs and benefit from the ability to take a vehicle to transport purchases and provide mobility at their destination. Residents desire greater opportunity to travel between communities on their schedule versus having to travel on the ferry schedule and worse stay over for one or more days before they can return.
Residents desire ferry connections that provide as frequent a schedule as possible. Frequent ferry schedules increase inter-community connectivity to the benefit of all communities and the region's commercial, educational, medical and governmental institutions. However, service capacity and frequency must be consistent with traffic demand and available funding.

Result: Alaskans will need to choose between two mobility regimes. Longer ferry routes served by larger, more comfortable, and more weather reliable 24/7 ferry boats with staterooms, full service cafeterias, that run through the region from one end to the other **OR** shorter ferry connections served by smaller, more weather dependent, more affordable, but less comfortable shuttle ferry day boats delivering a higher level of service frequency at more affordable fares and offering limited food service and requiring overnight stays in hotels ashore. Travelers would have to drive through most communities in Southeast Alaska to transit the region. This would be a big boon to the independent tourist, retail, and hospitality and service industries in all Southeast communities – not just the hub communities. Travelers and residents alike would get a close-up view of the region. If travelers were afforded more frequent opportunity to depart each community; they would likely be more willing to spend time (and money) in a community, and traffic between

communities would grow. Increased mobility and connectivity should improve commerce and the local economies. Through travelers could expect an extra day to travel between Juneau and Ketchikan. Southeast residents could expect greater opportunity to travel to neighboring communities and residents in outlying communities could expect greater access to medical, governmental and commercial centers.