Long-Term Ferry Funding Study

Preliminary Report

Washington State Transportation Commission

November 2008

Long-Term Ferry Funding Study

Preliminary Report

prepared for

The Washington State Transportation Commission

prepared by

Cambridge Systematics, Inc.
555 12th Street, Suite 1600
Oakland, California 94607

date

November 2008

Table of Contents

List of Tables

List of Figures

1.0 Introduction

This report is the third in a series produced for the Washington State Transportation Commission's Ferry Funding Study. The goal of the study is to identify and evaluate a menu of viable, long-term, and sustainable funding options to support Washington State Ferries' (WSF) future capital and operating needs. The study was mandated by the Washington State Legislature (ESHB 1094, Section 206), and is being carried out by the Washington State Transportation Commission (WSTC).

The first report (February 2008) was a background paper on Washington State Ferries' financial situation[1]. The second report (July 2008) presented the evaluation results of a thorough screening of possible funding sources to support the ferry systems' needs[2]. This report, *Draft Funding Plan Recommendations*, documents the process used to identify a short list of funding sources, and shows how they could be used to meet the future funding needs presented by Washington State Ferries.

It is important to note that this is an interim report that documents research conducted to date and the preliminary recommendations of the Transportation Commission. It focuses on Washington State Ferries' *initial* estimates of its funding needs over the next 16 to 22 years, as presented in its September 2008 baseline needs analysis.

The *Final Ferry Funding Recommendations*, to be released in January 2009, will focus on addressing more refined estimates of funding needs identified in Washington State Ferries' Long-Range Plan, currently under development. It will also include more detailed discussion of specific funding options that respond to alternative levels of ferry operations.

1.1 PROJECTED FERRY FUNDING CRISIS

Washington State Ferries is facing a funding crisis that extends beyond the current dilemma of how to close the gap between operating income (mostly fares) and rapidly rising operating costs. More dramatic is the large unmet capital funding needed to perform necessary preventive maintenance and to replace aging vessels. Simply put, unless a source of substantial new revenue is

---

[1] Phase I Report of the Long-Term Ferry Funding Study, available at: http://wstc.wa.gov/LongTermFerryFinance/FerryFinanceStudyPhase1.pdf.

[2] Phase II Technical Memorandum: Initial Screening of Ferry Funding Sources, available at: http://wstc.wa.gov/LongTermFerryFinance/LongTermFerryFundingStudyPtII_Complete.pdf.

tapped, the ferry system will face certain cuts in service and, over time, declining condition of both the fleet and terminal facilities.

Since elimination of one of its main sources of revenue, the statewide Motor Vehicle Excise Tax (MVET) in 2000, the ferry system has managed to continue operations in large part by delaying heavy maintenance and replacement of ferry vessels and terminals. Money intended for capital preservation and reinvestment has been redirected to cover rising fuel and labor costs that could not be met despite substantial fare increases since 2000. As a result of deferred preservation and maintenance, some existing vessels are badly in need of repair or replacement. Over the past 18 months, there have been several unanticipated service interruptions resulting from deferred maintenance. In time, declining vessel condition will increase the incidence of unscheduled emergency repairs and maintenance, causing more frequent service interruptions and cancellations. If spare vessels in good operating condition are not available, even relatively minor problems will cause service interruptions. Those vessels declining to the worst condition will need to be taken out of service for safety reasons. Without dedicated, sustained funding for vessels maintenance and preservation, there will not be enough capacity to maintain the current schedule of operations, or to provide the level of reliability that customers expect and count on.

In addition to the lack of major funding for capital preservation and replacement, there are long-term challenges to funding ferry operations as well. Rising prices have impacted ferry operations by raising the cost of operations, and simultaneously depressing ferry ridership and fare revenue.[3] If fares are raised to help pay for increased operating costs, some reduction in ridership can be expected. Based on current evaluations of fare elasticity, fare revenue is expected to increase. If fares are raised too high, however, there can be a more dramatic drop in ridership resulting in actual decline of total fare revenue. And of course if service cuts are necessary in order to bring capital and operating expenses in line with revenues, further loss of ridership and revenue can be expected. Reduced ridership, reduced revenues, and unrelenting costs could create a downward spiral seriously disrupting business, commuter, recreational, and tourist travel alternatives in Washington State.

[3] Aside from any direct impact that fuel costs have on ferry operations, it has also been documented that as the general cost of transportation rises due to fuel cost increases, ferry ridership and thus revenue decline, simply because there is less passenger transportation activity in total. If ferry fares are increased to make up some of the cost of higher fuel, there is further reduction in ridership.

1.2 FUNDING NEED

Washington State Ferries has estimated the magnitude of unmet funding needed just to maintain current service levels over the 22-year period covered by its Long-Range Plan to be about $4.2 billion, or around $377 million per biennium.[4] Over 80 percent of this unmet need is for capital preservation and replacement. These needs are net of current dedicated capital and operating subsidies, which come from a variety of sources, including the state gas tax, vehicle registration fees, Federal programs, etc. More detail on the estimated long-term need is provided below in Section 2.0, *Funding Scenarios.*

The clear message from the WSF needs assessment and the Commission's funding analysis to date is that retaining anything comparable to the existing level of operations, while also preserving the condition of vessels and terminals into the future, will require far more funding than is available from current dedicated sources, including ferry fares.

As documented in the July report for the Commission, there are several viable mechanisms for generating the revenue necessary to meet the desired fleet and terminal preservation and replacement schedules and to maintain operations comparable to today's. These include both state and local sources, and are described in more detail in Section 3.0 below. Non-fare operating income, including concession revenue, advertising, etc., of course will continue to play a role in funding ferry operations, but will not significantly relieve the need for a major source of tax revenue needed to ensure the longer-term sustainability of the system, even at current service levels.

The State of Washington is currently facing a significant budget shortfall that goes beyond the ferry system, and the Commission recognizes that it may not be feasible for the ferry system's funding needs to be resolved right away. Assuming the necessary decisions are made to authorize a new revenue source, it would take time to work out and implement the details of a funding package. It is noteworthy that the current and projected funding crisis affects not just WSF, but state and local roads, public transit, and other modes, as a result of significant inflation in project construction costs, declining real revenues, and other factors.[5] It may be the case that a broad multimodal funding package would be the preferred strategy for addressing significant capital investment

---

[4] These figures are expressed in "year of expenditure" dollars, which take into account that an expense incurred in the future will cost more than it would today, due to inflation. Using inflated dollars when discussing future expenses provides a more realistic picture of the amount of revenue needed to meet projected future expenses.

[5] A recent example of the difficulty of projecting future construction costs was provided by the November 13, 2008 bid opening for two new 64-car vessels for the Port Townsend/Keystone route, which came in approximately 30 percent higher than the WSDOT estimate.

needs across the transportation sector. If a local ferry funding district is created to generate revenues from communities served by the system, an even longer lead time is likely to be needed to define and implement suitable governance and management for this revenue source.

Therefore both the Commission and Washington State Ferries are also investigating one or more future scenarios in which no new funding other than operating income and existing dedicated sources are available in the foreseeable future. This would necessarily involve reductions in service levels substantially below those described in the WSF "Baseline" scenario described in this interim report. At the present time the actual service levels and related capital and operating needs of such a scenario have not been defined. The final funding report scheduled for release in January 2009 will consider a broader range of service levels and corresponding funding options, including detailed discussion of the mechanisms by which revenues could be generated from state, local and operating sources.

2.0 Funding Scenarios

Washington State Ferries has been actively developing a draft Long-Range Plan (LRP) for ferry system investment and operations. The Draft LRP will define and evaluate alternative levels of future ferry system service, including scenarios providing both more and less service than today's operations. The Draft LRP is scheduled to be released for review and public comment more or less simultaneously with the legislatively-mandated date for delivery of this draft funding plan. Given the parallel tracks of the two efforts, the WSF LRP planning scenarios are still taking shape and are not sufficiently well defined to permit detailed discussion of the specific funding needs of the different scenarios. This Draft Funding Report, therefore, focuses on the funding needs of a "baseline" level of service that has been defined by WSF working together with the Joint Transportation Committee's staff and consultants. The revised and final Funding Study and recommendations will be updated to reflect the WSF planning scenarios that emerge from the LRP review and approval process.

While the planning scenarios that come out of the LRP process may change over the next several weeks or months, the Commission's funding analysis anticipates a range of scenarios along the following lines:

- At the upper end of investment and operations, an LRP "preferred scenario," which is likely to augment current levels of service with additional investment in system capacity to accommodate anticipated growth in customer demand, terminal enhancements to facilitate improved loading of autos and walk-on passengers, a revised fare structure/reservation system to manage demand and improve utilization of system capacity, and the possibility of fare increases that exceed the rate of inflation. Capital and operating funding needs for this level of operation have not yet been defined.
- A "baseline" scenario as previously defined by WSF, which approximates current operations and fleet capacity, and which addresses all reasonable maintenance, preservation, and replacement needs, including catching up on deferred maintenance. The capital and operating funding needs for the baseline have been projected out over 22 years by WSF, and include the most recent (September 2008) projections of long-term fuel costs.
- One or more scenarios involving service levels significantly lower than current levels, promulgated in response to the anticipated funding situation and contemplating the possibility that WSF operations will need to be scaled to that which is possible using only existing sources of revenue. The capital and operating funding needs of a reduced-service level scenario have not been defined in detail. Unlike the "preferred" and "baseline scenarios," however, in which funding needs are determined based upon a defined level of operations and capital investment, the funding requirements of these

"reduced" scenarios would more likely be determined by identifying the approximate level of funding available from current sources (including fares), and then iterating to some level of operations that is sustainable given that amount of anticipated revenue.

- It is worth noting the difference between planning scenarios developed by WSF in response to analysis of system demand and capacity, and funding scenarios, which are developed by WSTC in response to a certain level of desired investment. The Draft Funding Study has identified a range of viable funding mechanisms that can be packaged together in alternative funding scenarios and adjusted to both achieve the desired level of funding and to meet policy objectives regarding source of funds. The Commission anticipates working with WSF to define one or more reduced-level service scenarios.

2.1 BASELINE SCENARIO

The WSF baseline scenario and needs analysis are fully defined in previous reports from WSF[6]. The baseline conditions, as described by WSF, are intended to indicate what would be required to continue to operate current services; and to adequately maintain, preserve, and replace existing capital assets. In terms of the ferry fleet, this means integrating current vessel procurement plans already underway, resulting in near-term acquisition of two Island Home class vessels and three 144-car vessels. Starting in about the 12th year of the 22-year LRP horizon, this would also then result in replacement of retired vessels with in-kind equipment. Over the life of the plan, this would involve purchase of seven more new vessels, in addition to the two Island Home and three 144s, to replace retiring ones. In comparison, WSF has purchased three new vessels over the previous 20-year period. Improvements to terminals are assumed to be replacement "in kind" only, that is, maintaining and replacing as necessary what is already in place, but not allowing for improvements or enhancements.

Numerous assumptions and projections have of course been necessary to estimate the future cost of system operations and maintenance, including growth in cost of labor, fuel, and other system inputs, as well as modest increase in fare revenue (2.5 percent per year) and in overall ridership (about 1.5 percent per year.) Through a fairly extensive process of reviewing projected preservation needs, WSF has developed a "right-sized" estimate of terminal and vessel costs that are lower than initial estimates by as much as $1.1 billion over the 22-year LRP planning horizon. Conversely, the use of updated fuel price forecasts from September 2008 has added another $300 million in anticipated operating expense over the 22-year life of the plan relative to estimates based on June 2008 fuel

[6] WSDOT Ferries Division, *Building Blocks for the Development of the Long Range Plan*, September 10, 2008.

forecasts. While there have been some very dramatic recent reductions in oil prices, and further price volatility should be expected, oil prices are expected to trend higher over time, and thus the September forecasts reflect reasonable assumptions, even if they may appear conservative in the very short term.

2.2 ESTIMATED BASELINE SYSTEM FUTURE FUNDING NEEDS

Table 2.1 below summarizes the cumulative 16- and 22-year capital and operating needs of this Baseline system. The combination of increased capital investment needs and higher operating costs results in a projected unmet funding need of approximately $2.3 billion over the 16-year budgeting horizon, after taking into account all currently dedicated sources of capital and operating funds. The funding gap grows dramatically to almost $4.2 billion over the full 22-year horizon of the WSF LRP, primarily due to vessel acquisition and major preservation expenses that are slated for the later years of the planning period. Table 2.1 shows the separate capital and operating components of this projected unmet need. As data in the table indicate, the capital needs are about 80 percent of the total shortfall, underscoring the significance and magnitude of the vessel and terminal preservation and acquisition needs in the long run.

As indicated above, these projections take into account all the necessary factors, such as inflation of different components of the ferry system expense, nominal fare escalation and ridership increases, fare elasticity, etc., which are well-documented in the relevant WSF reports. It should be noted, however, that there are varying degrees of uncertainty in these projections, and that there is probably greater risk that long-term costs will be higher than projected rather than lower. Nonetheless, these baseline needs projects serve as a very useful starting point for any discussion of a funding package intended to allow sustained, long-term ferry system operations at a level of performance and asset condition comparable to today.

The clear message to be taken from even these draft need projections is that maintaining anything comparable to the existing level of system operations, with the necessary and desired fleet and terminal preservation and replacement described in recent analyses by WSF and the JTC, will require far more capital funding than is available from current sources. The operating gap is less daunting, but hardly insignificant.

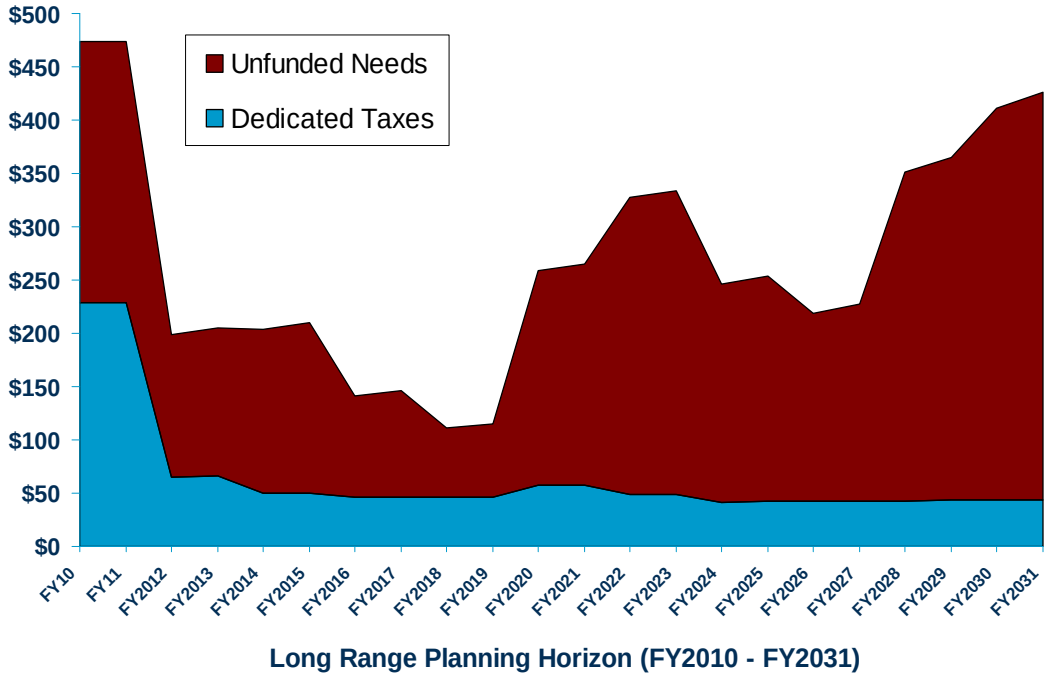
Table 2.1 Baseline Funding Needs Summary
Year of Expenditure Dollars, Cumulative, in Millions

	16-Year	22-Year (WSF LRP)
Capital		
Terminals	$1,090	$1,454
Vessels	$1,574	$3,006
Emergency needs	$79	$124
Debt service paid by PS Capital Account	$212	$212
Total capital needs	$2,955	$4,796
Dedicated capital funds	$1,167	$1,427
Net capital surplus/(shortfall)	($1,788)	($3,369)
Operating		
Operating revenues	$3,486	$5,344
Operating expenses	$4,559	$6,952
Net operating income/(subsidy)	($1,074)	($1,610)
Dedicated operating taxes	$571	$827
Net operating surplus/(shortfall)	($503)	($783)
Total Funding Needs for Core Program	$2,291	$4,152
Average per biennium	$286	$377

Note: Based on WSF 16- and 22-Year "Rightsized" Baseline Capital and Operating Needs Analysis, using September 2008 Fuel Forecasts, revised draft September 11, 2008.

Figure 2.1 illustrates the magnitude and timing of the capital funding gap. As can be seen in this figure, currently available capital funding is consumed in the first two years, and a sizeable capital funding gap persists over most of the years of the plan. This reflects the rapid depletion of remaining dedicated capital funding from the Transportation Partnership Account, 2003 Transportation Account, and "Nickel" Account. The only ongoing dedicated sources of capital funding are a portion of gas tax revenues, limited TPA revenue, and Federal funds; the combined sum of which decline to $50 million or less per year after the fourth year of the plan. In contrast, the average annual capital need is about $155 million per year.

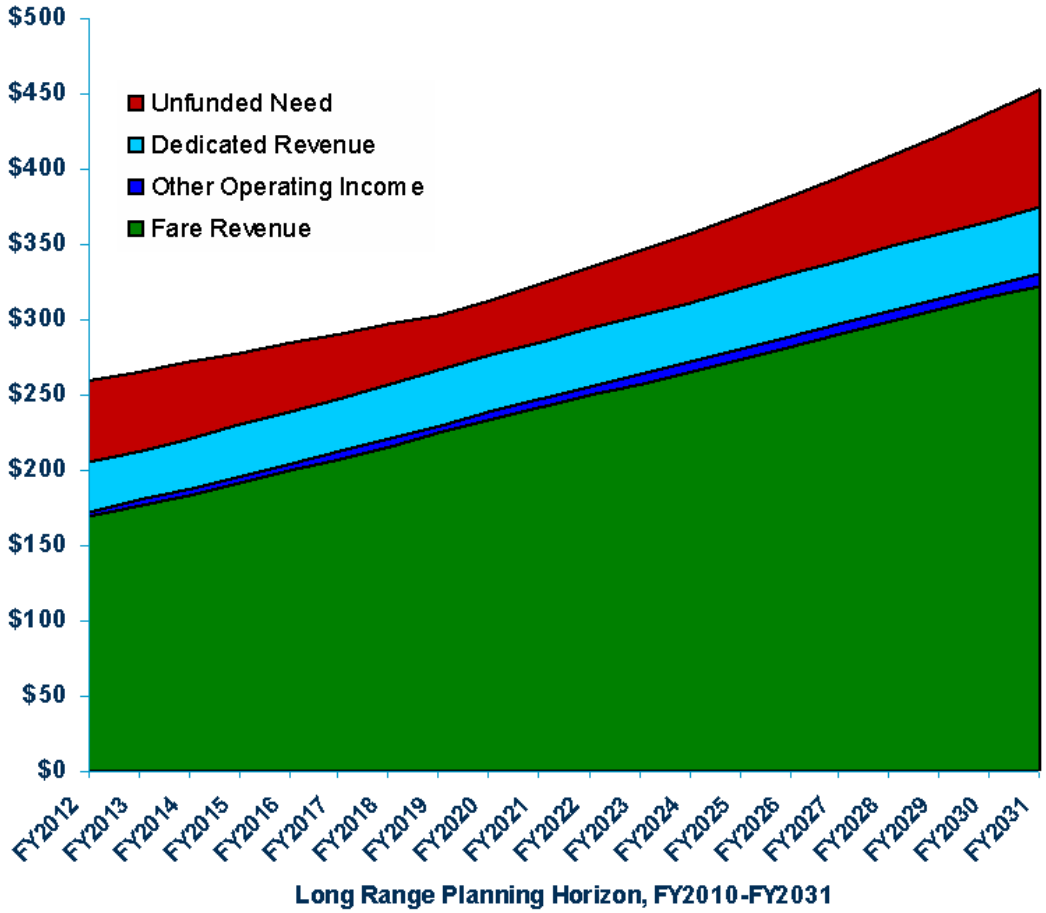
Figure 2.1 Ferry Capital Program – Dedicated Taxes and Unfunded Needs
Values in Millions of Year of Expenditure Dollars



Source: Washington State Ferries Baseline Needs Analysis, Revised "Rightsized" Version September 2008.

Figure 2.2 presents similar information for operating expenses and revenues. Relative to the capital funding picture, a significant percentage of total operating needs is paid each year out of fares, other operating income, and dedicated operating subsidy from state gas tax and license revenue. An operating gap of about $30 million per year exists in the first two years of the plan. Assuming the nominal 2.5 percent per annum fare increase and very modest annual ridership growth, WSF projects that this operating gap would actually narrow to $20 million or less per year until the out-years of the plan, when fuel and maintenance-related labor costs are expected to rise more steeply than fare revenue.

Figure 2.2 Ferry Operating Program – Dedicated Taxes, Operating Income, and Unfunded Need
Values in Millions of Year of Expenditure Dollars



Source: Washington State Ferries, Baseline Needs Analysis, Updated September 2008 Fuel Forecast and Operating Revenue.

2.3 FUNDING NEEDS OF ALTERNATIVE SCENARIOS

Long-term capital and operating needs of other service scenarios have not been fully developed. These will be presented in the revised and final version of the ferry funding study. The WSF LRP "Preferred Scenario" will likely include additional capital investment in terminals to accommodate anticipated growth in demand, in particular the loading of walk-on passengers. Incremental capital and operating expenses related to a reservation system are anticipated. Revised ridership projections will accompany the preferred scenario analysis, which will of course impact fare revenue and the residual amount of operating expense that must be covered through sources other than fares (or through more significant fare increases.) Funding the preferred LRP scenario will thus likely suggest similar options that are presented in this report for the baseline scenario,

including various combinations of state and local revenue sources, more aggressive fare revenue strategies, and increased non-fare income from ferry operations.

Any of the scenarios that assume no new source of state taxes will be evaluated in terms of the level of operations and capital investment that could be sustained from a combination of fare increases and locally-generated revenues. Section 3.0 below identifies the range of revenue that can be generated from various local tax or fee mechanisms implemented through a ferry funding district. But until the approximate long-term capital and operating costs of the reduced service scenarios are known, it is difficult to suggest a particular funding plan. The preferred options for funding one or more reduced service alternatives will have to be identified once more detail is available on the amount of revenue needed to support the defined level of service and corresponding capital preservation and acquisition costs.

3.0 Funding Sources Considered

This section documents the analysis conducted thus far to support the development of a funding plan for the ferry system. The information is arranged in three sections: 1) state sources of funding, 2) local sources of funding, and 3) ferry system sources of funding (operating income.)

The reader should be aware that each of the following section is structured differently, since the questions of greatest importance differ by source:

- The state sources section focuses on which state source could most appropriately be tapped to support the ferry system;
- The local sources section focuses on how local sources could contribute, since historically they have not supported the ferry system; and
- The ferry system sources section focuses on how much ferry fares should be expected to contribute to the total funding plan.

The Commission is in the process of exploring what should be the relative contribution of these sources to the ferry system.

3.1 STATE SOURCES

In analyzing state sources, the Commission has focused thus far on the question of which state source(s) are most appropriate for funding WSF's shortfall over the next 16 to 22 years. To answer this question, it has followed a three-step process:

1. Develop a long list of possible sources;
2. Evaluate the long list according to an agreed-upon set of criteria (yield, reliability, administrative effectiveness, equity, economic efficiency, and political acceptability); and
3. Select a short list of sources based on the evaluation results.

The first two steps were completed in July 2008 with the publication of the *Part II Technical Memorandum – Initial Screening of Ferry Funding Sources*. The report is available on the Commission web site[7]. For reference, the evaluation results are presented in Table 3.1 below.

[7] http://wstc.wa.gov/LongTermFerryFinance/default.htm.

Table 3.1 Evaluation Results from Initial Screening Process

	Yield	Reliability	Administrative Effectiveness
State Sources			
Vehicle Excise Tax	●●●	●●●	●●
Fuel Tax Increase	●●●	●●●	●●●
Sales Tax Surcharge or Increment	●●●	●	●●
Tolls	●●	●●	●
Licenses, Permits, and Fees	●●	●●●	●●●
Rental Car Tax Surcharge	●	●●	●●●

Note: Yield: High (●●●) – $70 million or more; Medium (●●) – $10 million to $70 million; and Low (●) – less than $10 million. Amounts reflect estimated gross receipts per biennium. Reliability: High (●●●); Medium (●●); and Low (●). Administrative Effectiveness: High (●●●); Medium (●●); and Low (●).

Based on the evaluation results, the Commission subsequently selected a short list of state sources consisting of the following:

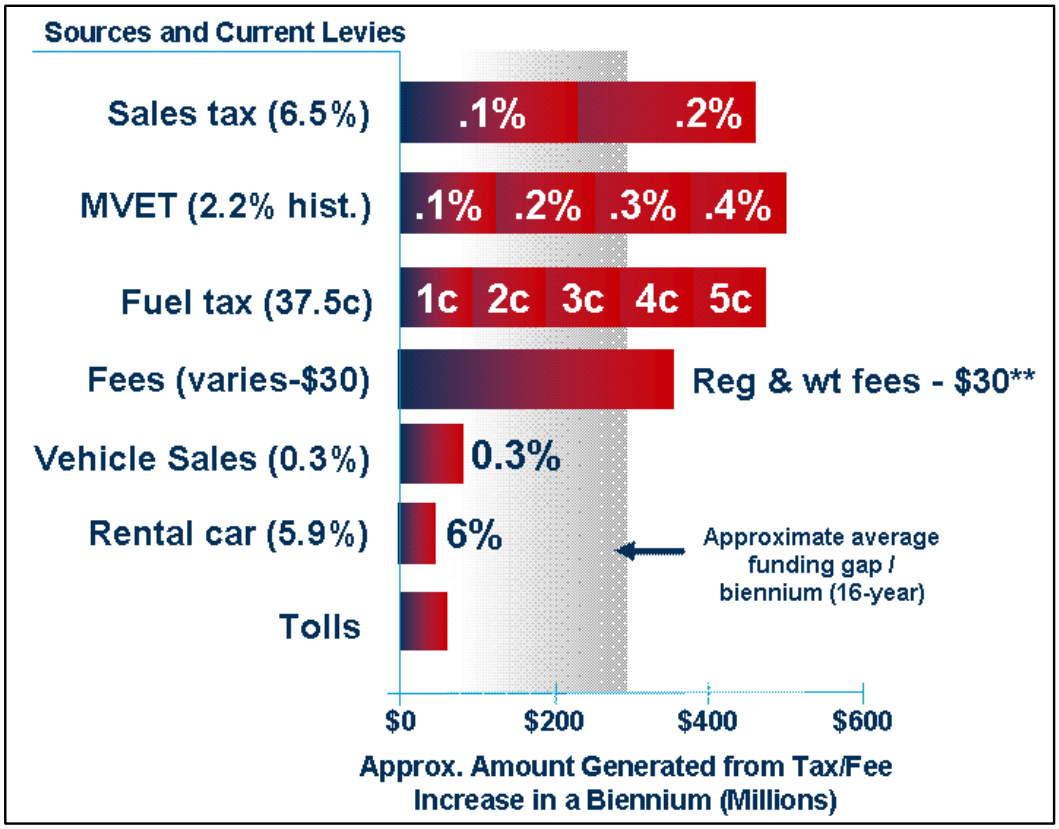
- MVET; and
- Passenger vehicle registration and weight fee.

Considerations in Selecting the Short List

Yield was the most important consideration in selecting these sources. Yield is the amount of money the source can produce, and is a function of the tax/fee level and the size of the tax base. To be included on the short list, each source must be able to generate enough funding to cover a good portion of the ferry system's large need (estimated at about $377 million per biennium over the next 22 years). In effect, this means that only sources with a large tax base or a historically high tax rate are good candidates.

Figure 3.1 below shows the potential yield of the state sources considered, compared with the ferry funding gap. The current or historical tax and fee levels are shown in parentheses. They provide context for whether the increase can be considered large or small relative to the current tax rate. For example, a 0.1 MVET is small relative to the historical tax rate of 2.2 percent; a 0.1 percent increase in the vehicle sales tax is very large relative to the current tax level of 0.3 percent.

Figure 3.1 Potential Yield of State Funding Sources Relative to 16-Year Average Funding Gap



** LPFs includes registration and weight fees. The amount shown is the approximate amount that would be raised by approximately doubling both fees above current levels of $30 for the registration fee, and $10 to $30 for the weight fee (varies depending on vehicle weight). The amount shown for tolls was estimated based on the additional toll revenue that could be earned.

Note: Figures are approximate. Assumptions used in calculations are documented in the Part II Technical Memorandum – Initial Screening of Ferry Funding Sources report, available on the Commission web site. More refined estimates for selected sources are presented below.

The average funding gap over the 16-year budgeting period is approximately $287 million. The average funding gap over the 22-year long-range planning period is $377 million.

The numbers are approximate, but demonstrate that the yield from a vehicle sales tax, rental car tax, and tolls all fall well short of the ferry system's funding need. For example, even if the current rental car tax rate were doubled (from 5.9 percent to 12 percent), the additional revenue earned would only amount to about $50 million a biennium; well short of the $377 million average amount needed to cover the ferry funding gap.

By contrast, the yield is much greater from small increments of the MVET, sales tax, fuel tax, and to a lesser extent from the passenger vehicle registration and weight fee. It is important to note that not all incremental revenues generated from any one of these new or increased sources should be expected to go to WSF;

generating broad support for a significant new statewide levy would likely involve allocation of resulting revenues across multiple transportation programs.

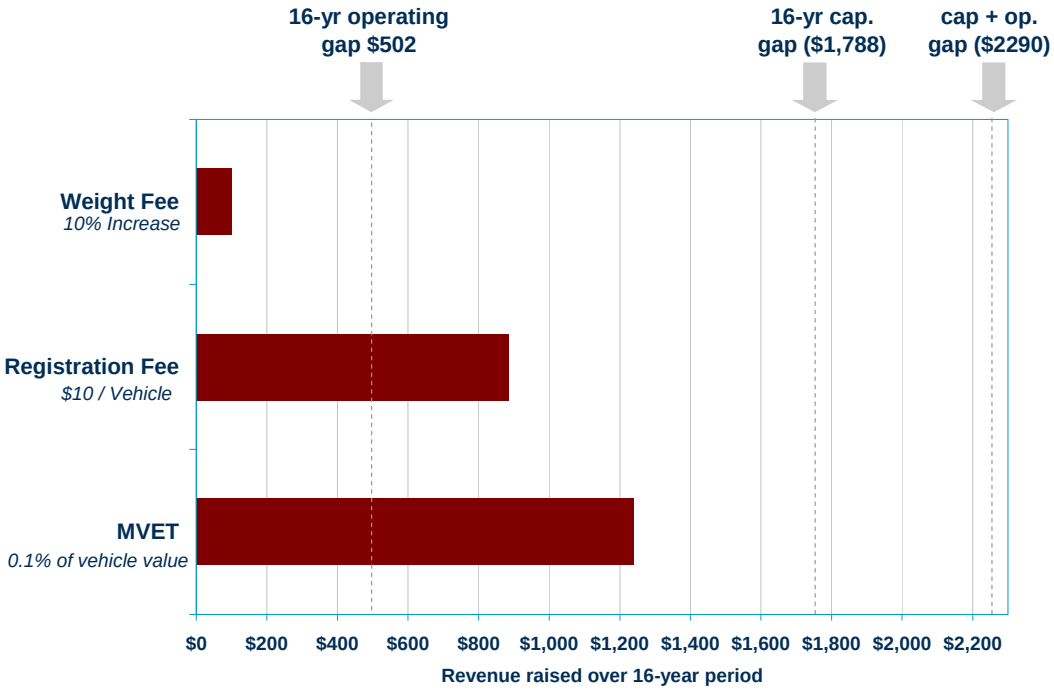
Among the high-yielding sources, the sales tax and fuel tax increase were both eliminated from consideration for other reasons. The sales tax was eliminated because it is not related to the ferry system or transportation, is less reliable than other sources due to its tendency to fluctuate with the economy, and is currently dedicated to other important state priorities such as education and health care. The fuel tax was eliminated based on the Commission's judgment that it is not likely to be politically acceptable at the current time, given the recent dramatic increase in motor fuel prices.

Characteristics of the Remaining Funding Sources

The elimination of the sales tax and fuel tax from consideration left the MVET and a registration and weight fee increase on the "short list" of sources to be considered for the ferry funding plan.

Both options are advantageous because of their high yield, although the MVET has significantly higher yield. Figure 3.2 below compares the representative yield in the 16-year legislative planning period from adding increments to the registration fee, weight fee, and MVET. The 16-year operating and capital funding gaps are shown with arrows.

Figure 3.2 Yield of Selected State Sources



Assumptions: Please see Appendix B for the assumptions used in the revenue forecasts.

Both the motor vehicle fees and the MVET have high administrative effectiveness, in that the system for collecting the revenues exists, or existed in the recent past in the case of the MVET.

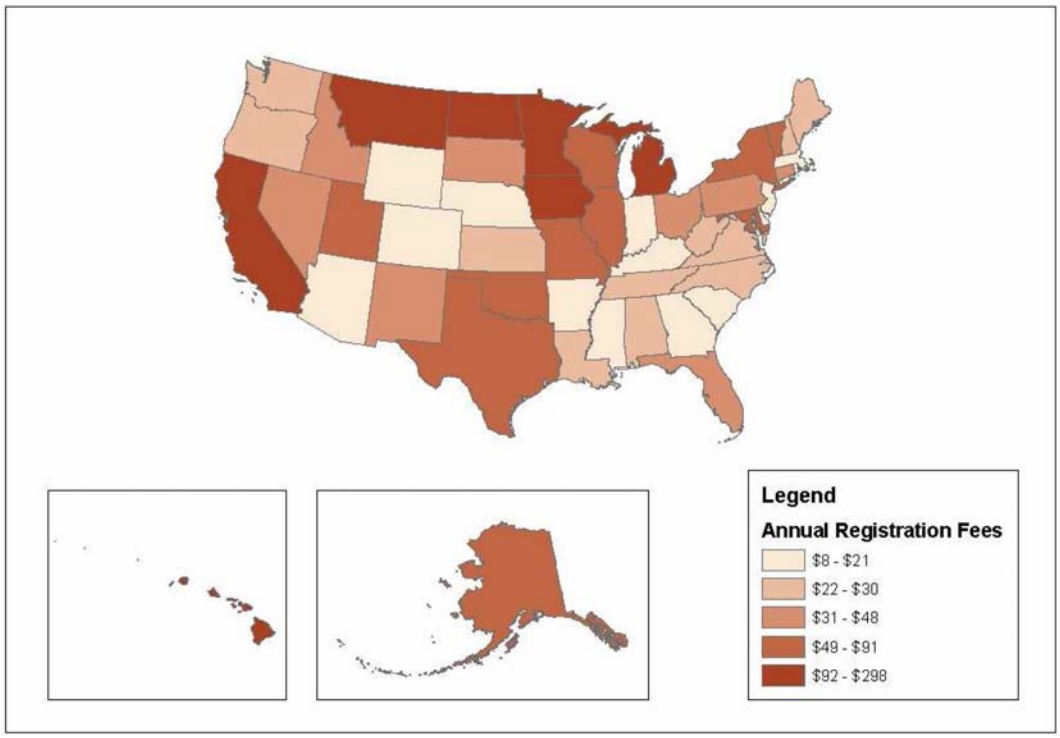
The MVET is particularly attractive in that revenues increase along with inflation and appreciation in the vehicle fleet value over time. There is also historical precedent for using MVET revenues to support the ferry system. Until it was rescinded in 2000, it was the main state source of funds for Washington State Ferries. The funds were never replaced, leading to years of deferred maintenance and today's funding crisis. Reinstituting the MVET would be a logical remedy to the situation.

Both the vehicle fees and the MVET have drawbacks. The MVET was unpopular in the past and may be so in the future. However, much of its unpopularity in the past was related to the method used to assess vehicle value, which was considered unfair. A new method, used by some of the localities that currently impose the tax, uses the vehicle blue book value to determine depreciation. This updated method may be more acceptable to voters.

Revenues from registration and weight fees will be undermined by inflationary pressure unless they are increased on a regular basis. In addition, increases in the two fees would have to be quite large to generate sufficient funds to cover the entire funding gap, and would therefore also likely encounter opposition.

When compared with registration fees levels in other states, however, Washington's combined registration and weight fee are somewhat below the norm. Figure 3.2 below shows registration fee amounts for automobiles of standard weight (3,500 lbs) by state. The average fee for all states is $56; Washington's fee is somewhat below that amount, at $30 for the registration plus a component for the vehicle weight (varies between $10 and $30). If the registration fees were doubled, the combined amount due would be $70 to 90, still lower than many other states.

Figure 3.3 Passenger Vehicle Registration Fee Amounts



Source: Cambridge Systematics, Inc., using information from state web sites and telephone interviews. Information collected for the *Vehicle Title and Registration Fee Study*, Texas Department of Transportation, 2008.

Table 3.2 below presents a summary and explanation of why each state funding source was either removed from consideration, selected for the short list, or "set aside." Sources which were "set aside" were those which are attractive for certain reasons but due to their low yield or other barriers were not worthy of detailed analysis. These sources may be considered as part of a ferry funding package, but will not be explicitly recommended by the Commission.

Table 3.2 Rationale for Discarding, Setting Aside, or Retaining State Sources of Funds

Source	Summary Reasons for Discarding/Retaining/Setting Aside	Explanation
Discarded		
Tolls	• Politically unacceptable • Legal barriers • Insufficient yield • Lack of connection to the ferry system	This source is in high demand for highway and bridge projects, so is not likely to be accepted as a source of funds for the ferry system. Even if it were politically acceptable, use of tolls for the ferry system would require a law change, since currently toll revenues may not be used outside the tolled facility. Finally, the consultants analysis of potential toll revenues on highways in the Puget Sound region indicates that tolls would not be able to generate sufficient revenue to cover the ferry funding shortfall, unless the tolls are applied extensively and the toll rates set very high.
Set Aside		
Fuel Tax Increase	• Politically unacceptable at the current time, due to volatile fuel prices	While the high yield and administrative effectiveness of the fuel tax make it one of the more attractive sources, Commission discussion indicates that the fuel tax is not likely to be increased at the current time, given the recent and very dramatic increase in motor fuel prices. Also, fuel tax revenues are diminishing over time due to more fuel efficient cars and decreasing consumption rates, making it a less viable long-term funding source.
Sales Tax Surcharge or Increment	• Not a transportation related tax • Used for important state priorities (health care, education) • Less reliable	Although the state sales tax is capable of generating sufficient revenues to cover the ferry system's needs, it was set aside from consideration due to its disconnection from the transportation system, its unreliability relative to other sources, and the fact that revenues are typically dedicated to the state general fund to serve important state priorities such as health care and education.
Rental Car Tax Surcharge	• Insufficient yield	This source is attractive due to the fact that it maximizes revenue gained from out-of-state tourists and visitors, and limits the burden on Washington state residents. However, unless the tax rate is raised dramatically (i.e., more than doubled from its current rate), it would generate funds insufficient to meaningfully offset the ferry funding shortfall.
Vehicle Sales Tax	• Insufficient yield • Less reliable	This source does not have the potential to generate sufficient funds to support the ferry system unless the tax rate is raised dramatically (i.e., more than doubled). Moreover, it is not as reliable as other sources, since it is linked to vehicle sales, which can be expected to fluctuate rapidly with the economy.
Combined Licensing Fee	• Insufficient yield • Disproportionate burden on freight industry	If the fee rate were increased substantially, the combined licensing fee could generate funds sufficient to meaningfully offset the ferry funding gap. However, increasing this fee to support the ferry system would disproportionately burden the freight industry.
Retained		
Vehicle Excise Tax	• Very high yield • Transportation related • Automatically adjusts to inflationary pressure • Historic precedent • Progressive tax	The MVET is one of the highest yielding sources. In addition, because MVET revenues are based on vehicle values, which tend to appreciate over time, revenues are less subject to being undermined by inflationary pressure. The MVET also rates high in administrative effectiveness since the mechanism for collecting it existed in the past and could be reinstated. It is a relatively progressive tax, meaning that wealthier individuals would tend to pay more. The main disadvantage of the MVET is that it may be politically unpopular due to its history.

Source	Summary Reasons for Discarding/Retaining/Setting Aside	Explanation
Passenger License and Weight Fees	• Reasonably high yield (if both fees are increased substantially) • Already used to support the ferry system	If raised simultaneously and by a substantial percentage, passenger vehicle registration and weight fees would be sufficient to cover the ferry funding shortfall. Washington's registration fees are somewhat lower than those in other states, so there would appear to be room to increase them substantially and still remain within the realm of current practice. Aside from their yield, the main advantage of these fees is that they are already in existence and used to support the ferry system. Their main disadvantages are that they are vulnerable to inflationary pressure; their yield is low relative to the MVET; and they are relatively regressive, in that individuals pay the same amount per vehicle regardless of their income.

Table 3.3 below shows the tax and fee levels necessary to close the entire 16-year ferry funding gap of $2,291 million. The levels shown are not meant to propose any specific solution to the ferry funding crisis, but to illustrate the order of magnitude tax and fee increases that would be necessary to close the funding gap.

Table 3.3 State Tax and Fee Levels Necessary to Close the Funding Gap

	Tax/Fee Level Necessary to Close 16-Year Ferry Funding Gap of $2,291 Million
MVET	0.2% (or about $16 on an $8,000 vehicle)
Registration fee Increase (alone)	$25 per vehicle
Combined registration and weight fee increase	$20 per vehicle plus a 50% increase in the weight fee per vehicle.

3.2 LOCAL SOURCES

Local sources have not contributed to the ferry system in the past, and there is no existing mechanism for collecting or distributing the funds. Therefore, consideration of local sources must address the following questions:

- What is the rationale for local funding?
- What are the most viable sources from which to generate revenue?
- What are reasonable geographic boundaries of a local ferry-funding district? How much revenue could be raised from different sized districts?
- How would the district be implemented and governed?

Each of these questions is considered in turn below.

Before proceeding, the reader should understand that neither the Washington State Transportation Commission nor the state legislature can create a local ferry funding district. The Commission can recommend its creation, and the

legislature can enact enabling legislation. However, the State cannot force localities to collect taxes and fees[8]. The localities themselves must do so.

This discussion is simply a starting place for thinking about how a local ferry funding district could be structured.

Rationale for Local Funding

The ferry system is facing an unprecedented funding shortfall. With such a large amount of funds to be raised if the ferry system is to be kept more or less intact, funding sources that have been overlooked in the past are now being scrutinized. This includes not only local funds, but also non-fare operating revenue, private investment, etc.

The primary argument for local funding is the "nexus" principle, which says that the amount paid for a good or service should be proportional to benefits received. Ferry-served localities receive a disproportionate share of benefits from the ferry system, but do not pay a disproportionate cost, even after including fares paid by their users. Some of these benefits might include the following:

- **Local economic benefits.** Everyone in Washington State benefits from commerce and tourism related to the presence of the ferry system. However, local residents may benefit disproportionately from local sales tax revenues and jobs created by tourism.
- **Property values.** Owners of residential and commercial properties may benefit from increased property values due to improved accessibility.
- **Unique access to residential locations.** The ferry system allows some individuals to live in unique natural locations that would otherwise be difficult to access.

Note that none of these benefits have been studied in detail or quantified, so their magnitude is uncertain.

There appears to be some public support for local funding of the ferry system among residents of ferry-served communities. The Transportation Commission's General Market Area Survey of Puget Sound Residents[9] showed

---

[8] Article XI, Section 12 of the State Constitution says: "The legislature shall have no power to impose taxes upon counties, cities, towns or other municipal corporations, or upon the inhabitants or property thereof, for county, city, town, or other municipal purposes, but may, by general laws, vest in the corporate authorities thereof, the power to assess and collect taxes for such purposes."

[9] The General Market Area Survey included 1,240 telephone surveys completed with a random sample of residents living in counties surrounding Puget Sound that are most likely to use the ferries. The sample included ferry riders and nonriders.

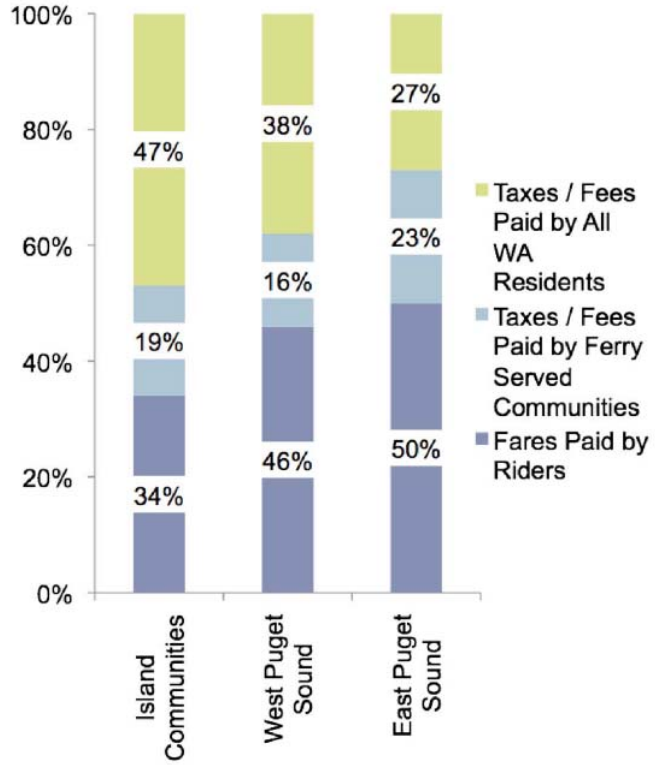
that, overall, respondents felt that 28 percent of the costs of funding the ferry system should be paid through local taxes and fees in ferry-served communities, 22 percent should be paid through state taxes and fees, and the remaining 50 percent should be paid by ferry riders.

Responses to this question varied by residential location, with West Sound residents assigning the lowest percentage to local funding (16 percent) and East Sound Residents assigning the highest percentage (23 percent). Figure 3.4 below shows responses by place of residence (West Sound County, East Sound County, and the Islands).

The information above suggests that in the minds of the general public, locally-collected revenues should cover provide in the range of 15 to 20 percent or more of the ferry system costs.

Figure 3.4 Responses to Question Regarding How Ferry System Costs Should Be Distributed

Question: Currently, about 50 percent of the ferry system's revenues come from ferry users and 50 percent come from general taxes paid by Washington State residents, and 0 percent comes from local taxes in communities served by the ferries. What percent of the cost to maintain the ferry system should come from state taxes and fees, taxes and fees paid by ferry-served communities, and fares paid by riders?



Sources of Local Funding

The Commission reviewed a range of local funding sources to determine which sources would be most attractive. As with state sources, a long list of potential sources was developed and then evaluated primarily according to yield, reliability, and administrative effectiveness. The evaluation results were published in the July 2008 report entitled, *Part II Technical Memorandum – Initial Screening of Ferry Funding Sources*.

Using the evaluation results, the Commission selected a smaller set of funding sources for more detailed financial analysis. These sources included the following:

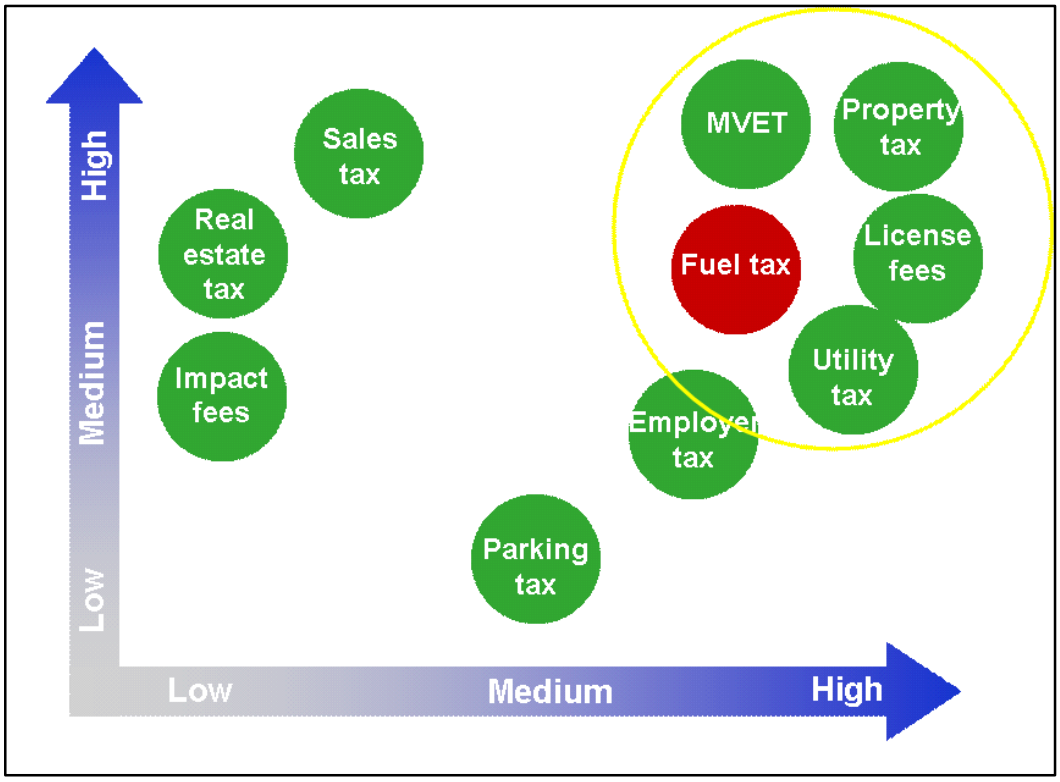
- Local motor vehicle excise tax,
- Local registration fee surcharge,
- Property tax, and
- Local utility tax.

These sources were selected primarily because of their superior yield and reliability. Figure 3.4 below shows the sources that performed best in those areas in the initial evaluation. The fuel tax is shown in red because it was judged to be politically infeasible at the current time, even though it has high yield and reliability.

The selection of a small number of local sources for detailed analysis was necessary to allow estimation of the revenue-generation capacity of a ferry funding district. In practice, localities would have a say in the selection of the tax or fee source. For example, legislation enabling localities to form Transportation Benefit Districts provides six different tax/fee options from among which localities can choose. Localities will also wish to consider the current use of the tax and fee source. This may be a subject of contention, since those who depend on it may object to it being used for another purpose. For reference, the source recommended for detailed analysis by the Commission is currently used for the following purposes:

- **MVET.** There is a 0.3-percent MVET in place in King, Pierce, and Snohomish Counties to support Sound Transit.
- **Motor Vehicle License/Registration Fee.** To the consultant's knowledge, there is no local motor vehicle license fee in place in the Puget Sound region. However, all residents pay the state fee of $30 per vehicle.

Figure 3.5 Yield and Reliability of Local Funding Sources



Note: The fuel tax is shown in red because it was judged to be less politically feasible than the other sources due to recent volatility in fuel prices, though it performed well on yield and reliability.

- **Property tax.** Property taxes are used for a very wide variety of purposes throughout the Puget Sound region. Property taxes vary greatly by location, depending on how many districts rely on the taxes. For example, in San Juan County, total property taxes range from $3.97 and $6.64 per $1,000 of assessed value. The taxes are used to support purposes, including schools, transport, roads, fire protection, cemeteries, libraries, parks and recreation, hospitals, and Emergency Medical Services[10].
- **Utility Tax.** To the consultant's knowledge, there are no utility taxes in place in the Puget Sound region. There is a utility tax in place in the City of Pullman in eastern Washington (Whitman County), used to support Pullman Transit, but it is a percentage of the utility bill, not a flat tax.

Table 3.4 below presents some of the pros and cons of the four sources selected for detailed analysis.

[10]Source: San Juan County Assessor's web site.

Table 3.4 Pros and Cons of Funding Sources Selected for Detailed Analysis

Local Tax/Fee	Pros	Cons
MVET	• High yield. • Not as vulnerable to inflationary pressures as a flat tax. • Less regressive (higher income individuals have more and higher value vehicles).	• Already in place in three counties to support Sound Transit. • Less linked to ferry system benefits.
Property Tax	• High yield. • Not as vulnerable to inflationary pressures as a flat tax. • Potential for more direct connection to ferry system benefits (existence of ferry system may influence property values, especially for Island residents and those living near ferry terminals). • Less regressive.	• Property taxes are used for many purposes; the ferry system would have to compete. • Imposing property taxes can be complex due to caps on property tax rates and increases. Total taxes may not exceed $10.00 per $1,000 of the market value of property, and $5.90 for junior taxing districts. For most districts, taxes may not increase by more than 1 percent per year without voter approval*.
Motor Vehicle Licensing Fee	• Not currently used on the local level; may be less likely to be seen as competing with other local priorities.	• Lower yield than the MVET and the property tax. • More regressive than other taxes (everyone pays the same amount for vehicles of similar weight, regardless of income). • Vulnerable to inflationary pressure.
Utility Tax	• Not currently used on the local level; may be less likely to be seen as competing with other local priorities.	• Lower yield than MVET, license fee, and property tax. More regressive than other taxes (everyone pays the same regardless of income). • Vulnerable to inflationary pressure.

Note: Limitations on property taxes are codified in RCW 84.52.050, RCW 84.52.043, and Chapter 84.55 RCW.

Ferry District Geography, Political Feasibility, and Revenue Generation Potential

The Commission is investigating a number of possible ferry district geographies. The geography will ultimately depend on which local governments agree to be a part of a local funding district. Some possibilities are listed below.

- **Eight-County District.** An eight-county ferry funding district, encompassing all eight ferry-served counties[11], would have the greatest revenue-generation potential, but would likely be the most politically challenging to implement, since voters in the counties on the eastern part of Puget Sound (King, Pierce, Snohomish, and Skagit) are less dependent on the ferry system, and so would be less likely to support a ferry funding district.

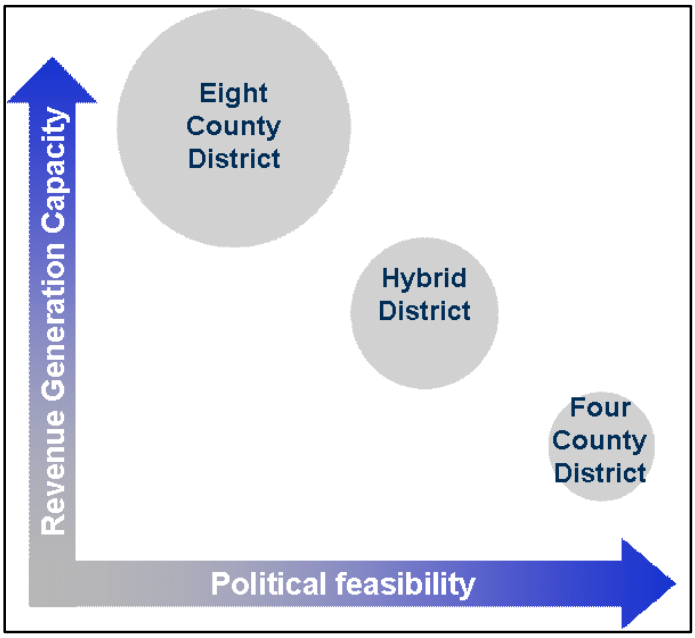
[11] King, Pierce, Snohomish, Skagit, Island, San Juan, Kitsap, and Jefferson Counties.

- **Four County Plus Vashon District.** It would likely be less challenging to gain political support for a four-county ferry district comprising only of the more ferry-dependent West Sound counties (Island, San Juan, Jefferson, and Kitsap, plus Vashon Island, which is part of King County). However, those areas have small populations, making revenue generation potential much lower than an eight-county district.
- **Hybrid district.** A hybrid of the first two options would include the four-county district plus those areas in the East Sound which, due to their proximity to the ferry system or enjoyment of other benefits from it, may be more likely to support a local ferry district. Additional research would be needed to identify such areas. For the purposes of this report, it was assumed that the hybrid district would include the four-county district (e.g., four West Sound counties plus Vashon Island), and the portions of King and Snohomish Counties lying west of Interstate 5. These areas encompass about 33 and 42 percent of the County populations, respectively[12].

There is a clear tradeoff between the size (and revenue generation potential) of the ferry funding district and its political feasibility. The eight-county district would generate about nine times more revenue than the four-county district, but would be less politically viable, since it would include populations that do not depend on the ferry system (e.g., those who both live and work in King County). Figure 3.6 illustrates this tradeoff.

[12]Percentages estimated through Geographic Information Systems analysis of Census blockgroup populations.

Figure 3.6 Tradeoff Between Ferry District Size and Political Feasibility



Note: An eight-county district includes all eight ferry-served counties. A four-county district includes the four West-sound counties plus Vashon Island, which is part of King County. The hybrid district is an intermediate option.

Ferry District Implementation and Governance

By law, the State may not force localities to collect funds; formation of the funding district would be voluntary and would be subject to a vote of either the affected public or the county councils.

Gaining local approval would require that local voters have some incentive to adopt the arrangement, and some assurance that the amount paid in would be linked to system benefits received. The potential for geographic fragmentation of what is now a state system would increase, with the undesirable specter of multiple bodies for the planning and funding of the ferry system.

Ultimately, there would need to be a change in the governance structure of WSF, with local government more directly represented in oversight and decision-making. While these are not insurmountable obstacles, they clearly represent challenges or impediments that need to be resolved. Start-up time for a local funding option could be several years.

In considering how the governance of a ferry district might work, it is useful to consider relevant examples of mass transit systems that are funded and governed by multiple localities and state agencies. The two boxes below explain the unique local funding arrangements devised to support the Washington Metropolitan Area Transit Authority (WMATA) and Caltrain, a commuter rail service in the San Francisco Bay Area. Sound Transit, not discussed here, is

another example of a transportation district that draws funds from multiple localities.

Caltrain: Transition from State to Shared State-Local Responsibility

Caltrain is a commuter rail service that serves San Mateo, San Jose, and San Francisco Counties in California. The service was initiated in 1980 and run by the State department of transportation (Caltrans) through a partnership with a private rail operator. Caltrain's annual budget is about $150 million.

In 1987, representatives of the localities served by the commuter rail formed a Joint Powers Board (JPB) to transfer responsibility for the rail service from the state to the local level. The localities signed a Joint Powers Agreement that stipulated the JPB membership and powers, specified financial commitments for each member, established the San Mateo County Transit District as the managing agency and detailed other administrative procedures.

Under the Joint Powers Agreement, member localities are responsible for funding the operating subsidy. The localities' share of the operating subsidy is apportioned based on A.M. boardings.

Capital funding needs have been met through a combination of state grants, Federal grants, and fixed match amounts paid by member localities. Member localities also occasionally pay extra for special projects that particularly benefit their area.

WMATA: Funding From Eight Localities and MDOT

The Washington Metropolitan Area Transportation Authority (WMATA) provides bus, rail, and paratransit service to the District of Columbia and portions of Maryland and Virginia. WMATA's annual budget is nearly $2 billion.

About 40 percent of WMATA's annual budget comes from contributions from the localities its serves, which include three counties, four cities, and the District of Columbia[1]. The remainder comes from fares and Federal funds.

Each localities' funding contribution is determined by a formula that approximates system benefits received. The rail funding formula for example takes into account factors, such as the population of the locality, ridership attributed to the locality, and the number of rail stations in the locality.

In addition, the localities and the Maryland Department of Transportation have historically paid hundreds of millions of dollars each year on top of the formula-based contributions for special improvements in their areas, such station improvements, parking lots, and additional rail stations and buses.

The localities that contribute to WMATA are directly involved in its governance. Each member of WMATA's board represents one of its member jurisdictions (including a member representing the State of Maryland).

Not all localities in the Metro Area have opted to subsidize WMATA. Fairfax County elected to operate its own local bus service (the Fairfax County Connector) rather than pay WMATA.

The examples illustrate that there is precedent for joint funding and management of transit systems by a group of localities and state agencies. They show that the following steps will likely be needed to make such a funding arrangement work:

1. Determine which local governments are willing to participate in the arrangement.
2. Determine what they would be expected to pay and what would be received in return. In other words, determine what level of control localities demand over how the funds are spent.
3. Determine how funding responsibility will be split among participants (most likely as a function of system usage and access variables (e.g., ridership, population, number of access points)).
4. Determine whether action is needed by the state legislature to allow creation of the district. Action may not be needed if an existing type of transportation funding district can be adapted for ferry system purposes. Current law authorizing Transportation Benefit Districts (RCW 36.73) may be adequate.
5. Draft an agreement that specifies funding contributions and management responsibilities of each locality. Form an administrative body (e.g., a district authority or a Joint Powers Authority) representing the localities; or incorporate the localities into the existing governance structure of Washington State Ferries.
6. Localities determine how to raise the necessary funds. Depending on the tax or fee type, voter approval may be necessary. In some cases, new taxes or fees may be implemented automatically by city councils (e.g., "councilmatic" decision-making).

The final draft of this report will explore these governance steps in greater detail.

Appropriate Level of Local Contribution

The Commission is exploring what would be an appropriate level of local contribution towards total ferry funding needs. The level of contribution will ultimately need to be negotiated with the local governments, and will need to be linked to certain levels of service.

Some possible roles for local funding include the following:

- **Locals pay the portion of operating subsidy not covered by state tax revenues.** Dedicated state taxes are projected to cover most of the future operating subsidy needed by the ferry system. Local revenues could close

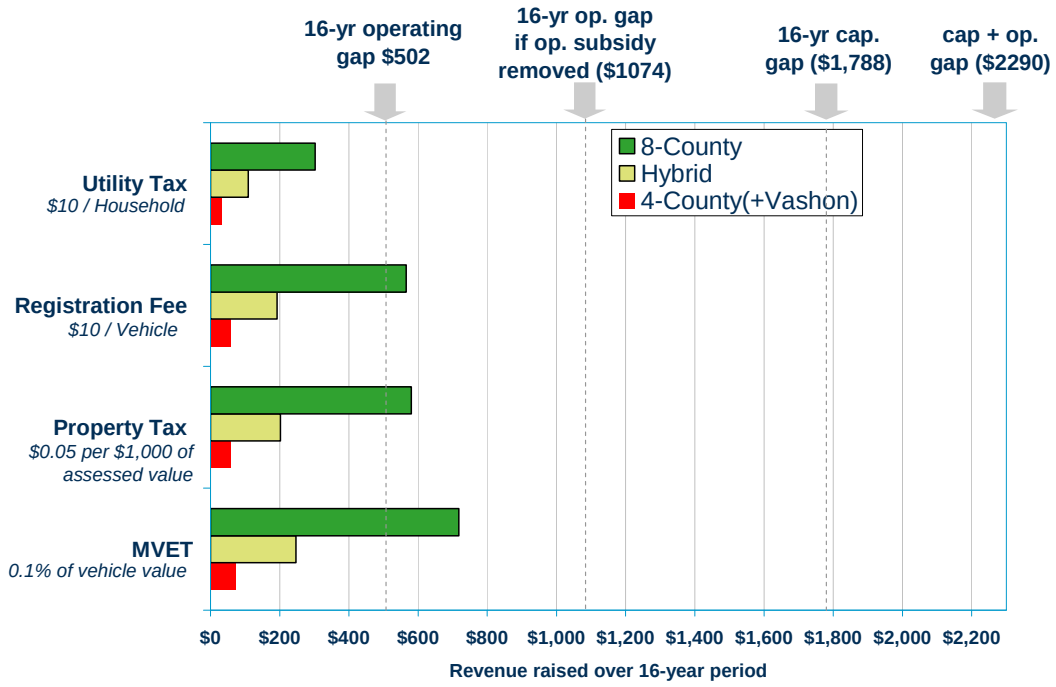
the operating revenue gap, which is projected to amount to $503 million between 2010 and 2025[13].

- **Locals pay the entire operating subsidy.** Local revenues could close the operating gap after all current dedicated state sources of operating funding are transferred to the capital budget. This increases the operating gap by about $35 million per year (more in the final years), for a total of approximately $1,074 million between 2010 and 2025.
- **Locals pay the entire operating subsidy plus a portion of the capital need.** Locals could pay some portion of the $1,788 million capital need, whether by contributing to terminal preservation and enhancement or vessel preservation. This would represent a break from historical practice in which all ferry system capital costs have been a statewide responsibility.

Figure 3.7 below provides an indication of how the various revenue sources compare to both the capital and operating gaps. The fee increments are not meant to reflect any recommended source or course of action, but rather to provide some working information about how these sources compare to the estimated need.

[13] This value and the values in the ensuing two bullet points are an average, expressed in year of expenditure dollars, over the 16-year legislative budgeting period. They are drawn from the September 2008 version of Washington State Ferries' baseline needs analysis, and take into account updated September 2008 fuel forecasts.

Figure 3.7 Local Tax and Fee Revenue Generation Potential Compared With Ferry Funding Gaps



The figure makes clear that the eight-county could make up the operating shortfall under low tax or fee levels, but would require much higher fee levels to significantly offset capital costs. The hybrid scenario could offset some of the operating gap, and possibly cover it if fee levels were set sufficiently high. Generating enough funds to cover the operating gap alone under the four-county scenario would require much higher high tax and fee levels (for example, a $150 per household utility fee or an $85 license fee).

Table 3.5 through Table 3.8 below show the tax and fee levels necessary under each scenario to generate enough funds to cover the operating shortfall (with and without state subsidy).

Table 3.5 Illustrative Tax and Fee Levels Necessary to Close the Operating Gap, *Local MVET*

District Size	Tax/Fee Level Necessary to Close 16-Year Operating Gap of $503 Million	Tax/Fee Level Necessary to Close 16-Year Operating Gap of $1,074 Million (Assumes State Operating Subsidy Is Removed)
Eight-County District	0.07%, or about $6 on an $8,000 vehicle	0.15%, or about $12 on an $8,000 vehicle
Hybrid District	0.2%, or about $16 on an $8,000 vehicle	0.4%, or about $32 on an $8,000 vehicle
Four-County District	0.7%, or about $56 on an $8,000 vehicle	1.4%, or about $112 on an $8,000 vehicle

Table 3.6 Illustrative Tax and Fee Levels Necessary to Close the Operating Gap, *Local Registration Fee*

District Size	Tax/Fee Level Necessary to Close 16-Year Operating Gap of $503 Million	Tax/Fee Level Necessary to Close 16-Year Operating Gap of $1,074 Million (Assumes State Operating Subsidy Is Removed)
Eight-County District	$10 per vehicle	$20 per vehicle
Hybrid District	$25 per vehicle	$55 per vehicle
Four-County District	$85 per vehicle	$185 per vehicle

Note: Values rounded to the nearest $5.

Table 3.7 Illustrative Tax and Fee Levels Necessary to Close the Operating Gap, *Local Property Tax*

District Size	Tax/Fee Level Necessary to Close 16-Year Operating Gap of $503 Million	Tax/Fee Level Necessary to Close 16-Year Operating Gap of $1,074 Million (Assumes State Operating Subsidy Is Removed)
Eight-County District	$0.05 per $1,000 of assessed value, or about $20 on a $400,000 home	$0.09 per $1,000 of assessed value, or about $36 on a $400,000 home
Hybrid District	$0.13 per $1,000 of assessed value, or about $52 on a $400,000 home	$0.26 per $1,000 of assessed value, or about $104 on a $400,000 home
Four-County District	$0.40 per $1,000 of assessed value, or about $160 on a $400,000 home	$0.90 per $1,000 of assessed value, or about $360 on a $400,000 home

Table 3.8 Illustrative Tax and Fee Levels Necessary to Close the Operating Gap, *Utility Tax*

District Size	Tax/Fee Level Necessary to Close 16-Year Operating Gap of $503 Million	Tax/Fee Level Necessary to Close 16-Year Operating Gap of $1,074 Million (Assumes State Operating Subsidy Is Removed)
Eight-County District	$15 per household	$35 per household
Hybrid District	$45 per household	$95 per household
Four-County District	$150 per household	$310 per household

Note: Values rounded to the nearest $5.

3.3 FERRY SYSTEM OPERATING INCOME

Throughout the ferry funding study, the Commission has been considering mechanisms for increasing ferry operating income, so as to reduce the amount of subsidy required to support the ferry system. Sources considered have included the following:

- Fare increases.
- New sources of ancillary revenue, such as naming rights, more aggressive advertising, and concessions sales on-board and in terminals.
- Public private partnership arrangements. These are not sources of revenue, but if structured properly, have the potential to produce money-saving efficiencies or reduce financial uncertainty.

Each type of source is considered in more detail below.

Fare Increases

The Commission has discussed a number of different types of fare increases throughout the funding study, including the following:

1. Across the board real fare increases (e.g., above the level of inflation);
2. Fuel surcharge;
3. Increase in the seasonal fare surcharge, and/or introduction of a three-season "off-peak, shoulder, peak season" surcharge structure;
4. Peak-period fare surcharge;
5. Reduction in frequent user discounts;
6. Surcharge on oversize vehicles; and
7. Indexing of fares to inflation.

The pros and cons of each type of increase are discussed in Appendix A, Ferry Fare Policy Ideas. Washington State Ferries is also analyzing the implications of

certain types of fare changes intended to manage demand, and will be presenting its analysis in its forthcoming long-range plan.

The Commission ultimately decided that the ferry funding study is not the appropriate forum for selection of specific types of fare increases. There exists a separate forum (the Tariff Policy Committee) devoted exclusively to working out the complex issues surrounding fare policy.

Rather, the Commission decided that this study should focus on determining an overall target for fare revenues. Fare revenue strategies under consideration are discussed below. To understand the difference between these strategies, the reader must have some knowledge the structure of the ferry system's operating fund and the concept of farebox recovery. Background information on these topics was presented in the first ferry funding report, *Long-Term Ferry Funding Study Part I Report*[14].

Strategies under consideration include the following:

- **Keep fare revenues stable and consistent with recent historical levels (~75 percent farebox recovery).** In 2005, WSF's farebox recovery rate was about 75 percent. That value has been eroded subsequently due to rising fuel costs and a freeze in fares. Returning the farebox recovery ratio[15] to the 75 percent level would require modest fare increases in the range of less than 5 percent. For example, if fares are increased at a rate of slightly less than inflation (2.5 percent per year, which is the base rate of fare increase assumed by Washington State Ferries in its Long-Range Plan) every year starting in 2010, the farebox recovery ratio would return to 75 percent by the year 2015[16].
- **Increase fares so that no additional state subsidy is required (~85 percent farebox recovery).** In the last several biennia, dedicated state taxes and fees have been insufficient to cover the entire operating subsidy[17] needed by Washington State Ferries. The state legislature has responded by transferring

[14] Available at: http://wstc.wa.gov/LongTermFerryFinance/FerryFinanceStudyPhase1.pdf.

[15] Farebox recovery ratios are calculated here as the ratio between ferry operating income (fare revenues plus miscellaneous operating income) and operating expenses, including direct operating expenses and other operating expenses funded out of the Puget Sound Operating Account (including Program C, Information Technology; Program S, WSDOT Executive Planning and Management; and the Marine Employees Commission).

[16] Fare revenue increase projections presented here for the three alternatives are estimates, and assume the same annual growth in ridership demand assumed by WSF in its baseline needs analysis, about 1.5 percent per year.

[17] The operating subsidy is the amount required to fill the gap between operating revenues and operating expenses.

the additional amount needed each year out of funding accounts intended for other purposes. The total shortfall expected in the next 16 years is $503 million. Covering that shortfall through fares would require increases of about 10 percent in 2010 and again 2011, followed by the assumed 2.5 percent base level of fare increase every year thereafter. This would result in an average farebox recovery ratio of around 85 percent over the 16-year period.

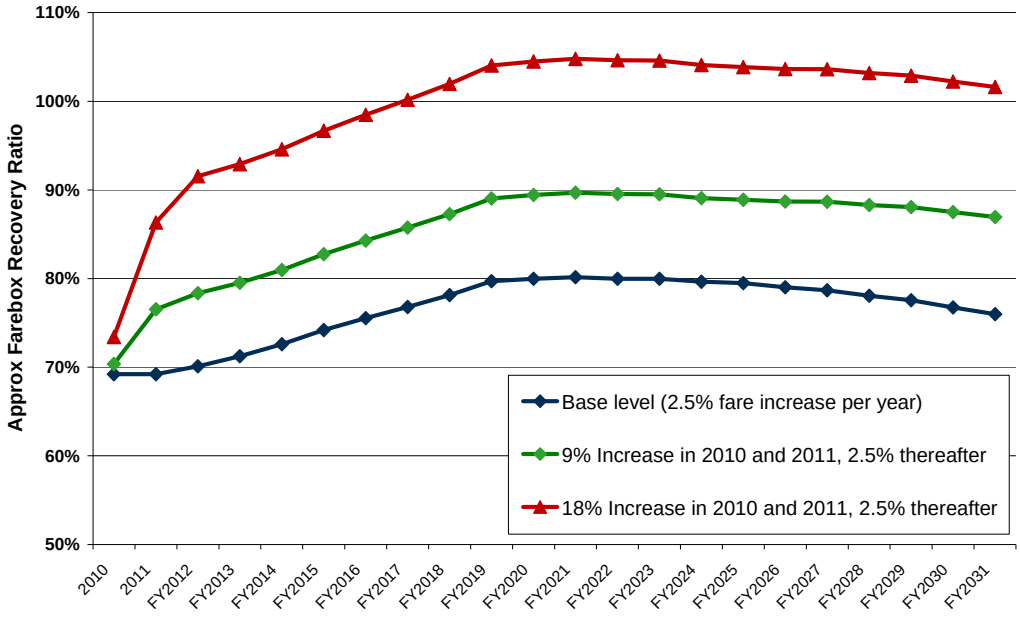
- **Increase fares so that no state operating subsidy is required (~100 percent farebox recovery).** If fares were raised by between 15 to 20 percent in 2010 and 2011, and every year thereafter by 2.5 percent, it would be possible to cover all of Washington State Ferries' operating costs through fare revenues and other operating income. This would allow the state subsidy currently dedicated to the ferry operating account to be used to cover capital costs instead.

Figure 3.8 below illustrates the approximate farebox recovery ratio over time that would result from the base case (fares raised 2.5 percent every year); a more aggressive case (fares raised by 9 percent in 2010 and again in 2011, followed by 2.5 percent every year); and the most aggressive case (fares raised by 18 percent in 2010 and again in 2011, followed by 2.5 percent every year). These estimates assume the same annual growth in ridership demand assumed by WSF in its baseline needs analysis (about 1.5 percent per year) but also take into account fare elasticity, therefore the growth in demand is somewhat offset by the assumed increases in fares. These estimates of revenue and farebox recovery are for sketch-planning purposes only, and WSF is developing more accurate estimates using its fare revenue model that will be incorporated into final funding analysis and recommendations.

These fare scenarios cannot be analyzed in the absence of assumptions about dedicated tax revenue. As previously stated in this report, if no dedicated tax revenue becomes available, aggressive fare increases will be necessary so that existing tax revenues can be used to maintain the core infrastructure of the ferry system.

The final version of this report will explore possible fare revenue scenarios in more detail in the context of varying assumptions about available tax and fee revenues, and will consider the rate at which increases are introduced. It will be supported by more precise fare revenue projections currently being prepared by Washington State Ferries.

Figure 3.8 Approximate Farebox Recovery Ratios From Illustrative Fare Increases



Source: Revenue estimates based on ridership projections by year provided in the September 2008 updated version of the WSF Baseline Needs Analysis (adjusted for September fuel forecasts). Estimates take into account elasticities by fare category, but use aggregated fares by category and thus are approximate and should be used for planning purposes only.

Ancillary Revenues and Public-Private Partnerships

Through the course of the Ferry Funding Study, the Commission has considered a number of possible sources of new non-fare ferry system revenues, or "ancillary revenues." Those analyzed have included the following:

- More aggressive advertising;
- More aggressive food and beverage sales;
- Public-private partnerships, such as terminal joint development, lease of the ferry system, or a long-term lease of the entire ferry system to a private operator;
- Ferry system naming rights; and
- Ferry reservation system.

The July 2008 report entitled, *Part II Technical Memorandum – Initial Screening of Ferry Funding Sources*, explored each of these areas, except ferry system naming rights.

Initial conclusions from that analysis were that ancillary revenues and public-private partnerships should be pursued aggressively, as they might help defray the amount of subsidy required. However, they cannot be expected to generate a

large amount of new capital of the magnitude needed to close WSF's operating gap, or replace ferry boats and terminals.

For context, the sum total earned from ancillary revenues is currently around $3 million per year, or less than two percent of the total operating budget. WSF's current forecasts assume that more aggressive strategies will allow revenues to grow at a rate higher than what would be expected from ridership growth and inflation (e.g., over five percent annual growth in ancillary revenues until 2014). Even with these growth assumptions built into the forecasts, ancillary revenues will still cover less than two percent of operating costs in the year 2025 (the last year of the 16-year legislative budgeting period).

Even if, for example, WSF were able to double its ancillary revenues over the next 16 years from $80 million to $160 million, there would still remain an operating gap of about $413 million over that period.

This example illustrates that, while ancillary revenues may defray some of WSF's operating gap, they will not eliminate it, even if such revenues are pursued very aggressively.

Nevertheless, ancillary revenues are worth considering as a means to supplement WSF's operating income. This section provides additional detail on potential revenues from naming rights, which were not explored in the initial report. The final report will summarize findings on ancillary revenues, and provide more detail on potential revenues from public-private partnerships.

Naming/Branding Rights

Ferry system naming rights were among the additional sources of operating income considered by the consultant team. Selling of naming rights would include applying commercial names or logos (e.g., Starbucks, Gap) to components of the ferry system, such as ferry vessels, routes, terminals, web sites, etc.

This source was considered in detail because the Transportation Commission has the authority to name transportation facilities owned and operated by the State. However, it is unclear whether the authorizing legislation allows naming for commercial purposes, since the Commission has not tried commercial naming in the past. In fact, there is little precedent in the United States for naming transportation facilities for commercial purposes. Naming is more typically undertaken to honor an individual or group.

Although naming components of the ferry system for commercial purposes is uncharted territory, the Commission felt that it is appropriate to explore it, given the magnitude of WSF's financial crisis and the need to identify new sources of revenue.

Some Examples

As stated above, there are few examples of transportation facilities named for commercial purposes. The most relevant examples include the following:

- **Oklahoma River Ferries**. A locally-based energy company contributed $2 million to the construction cost of new vessels on the Oklahoma River ferry transportation system. In exchange, these vessels will bear the name of the company for 15 years as part of the naming rights deal.
- **San Diego Port District Terminal.** The San Diego Port District is considering granting naming rights for its new proposed terminal, scheduled to open in 2011. The district will request bids in the near future, and expects to generate at least $5 million for a naming deal that could last up to 10 years.
- **Florida and Pennsylvania Turnpike Safety Vehicles**. In Florida, the largest toll road agency has a contract with State Farm that grants the company the right to put its colors, logos, and name on service trucks at an annual fee of approximately $1 million. The Pennsylvania Turnpike has a similar arrangement with the same insurance company. The service truck fleet is known as "State Farm Safety Patrol." For both turnpikes, the deal with State Farm allows the agencies to provide a service free of charge to their customers, as the sponsorship revenue enables the agencies to cover the operating expenses of the service trucks in full or part thereof.

Potential Value

It is not possible to estimate the potential value of a naming rights program without detailed analysis that is outside the scope of this study. However, it is possible to identify the variables that affect commercial value. In general, commercial value potential is a function of customer traffic, the available mechanisms for exposing customers to the name/logo, and the availability and types of ancillary consumer centric programs that can be implemented (e.g., related promotional marketing and advertising opportunities).

Potential sponsors would likely be interested in the following statistics:

- **Exposure.** Potential sponsors would need to assess how the naming rights arrangement would affect their "visibility" to potential customers. They would want to know how ferry riders would be exposed to their corporate name or logo (e.g., displayed inside the ferry vessel or terminal, noted on web sites, spoken aloud to those calling for information about the ferry system, etc.). They would also want to know how many people would be exposed to the name/logo and for how long? Prominently displayed corporate names and logos on ferry vessels should be attractive to potential sponsors, as they would be within view throughout the journey, not just for a few seconds, as is common with billboards.
- **Household income.** A key element to the willingness of businesses to sell advertisement or provide sponsorship is the household income of the target

market. This should be favorable to ferries, as its customer base is relatively affluent.

- **Economy.** The overall economy plays a key role because in downturns companies typically reduce expenses, including marketing. Hence, potential revenue analysis should consider how this may affect the agency's ancillary revenues. For instance, if the naming agreement specifies annual payments rather than an upfront payment for the naming deal, businesses under an adverse economic environment may not be able to fulfill their contract agreements.

A detailed analysis would review the above factors, as well as other ones relevant to the analysis of potential revenues from a branding/naming program. In addition to experts knowledgeable with ferry operations, it is advisable to involve subject matter experts in naming/branding to support the development of a reliable analysis.

Next Steps for Investigating Ferry Naming Rights

To further investigate the potential revenue from a naming rights arrangement, it would be necessary to take the following steps:

1. Review applicable statutes and regulations to determine whether commercial naming arrangements would be allowed.
2. Review asset inventory (e.g., vessels, terminals, routes, Internet sites, etc.) for their viability for a naming rights arrangement. This would involve reviewing traffic statistics and rider demographics, as well as physical inspections.
3. Prepare estimates of initial value of naming rights, solicit prospective sponsors/partners.
4. Determine how revenue from naming rights arrangements would compare to revenue from other forms of advertising, such as temporary but intensive advertising on board ferry vessels. For example, in the San Francisco and the Bay Area in California, commercial businesses buy the rights to temporarily "wrap" the Bay Area Rapid Transit (BART) stations with publicity to promote their products and services for a specified period of time. The same type of arrangement could be pursued for WSF.

It is important to note that the development of a naming rights program should be coordinated with existing efforts to expand advertising throughout the ferry system. Washington State Ferries is currently engaged in a commercial arrangement with an advertising agency, to use its vessel fleet as an advertising platform.

4.0 Conclusions and Recommendations

The purpose of this funding study has been to identify a sustainable source of revenue to fund continued operations of the WSF system well into the future. It is probably reasonable to say that at the time the need for the study was conceived it was anticipated that the resulting funding plan would be sufficient to allow continuation of a level of ferry service at least roughly comparable to today's levels, in terms of geographic coverage, hours of operation, and quality of service. Such a funding plan would need to consider not only the likely prospect of rising operating costs, but also the need to address past deferred maintenance and looming vessel replacement costs.

This draft report has accordingly focused on the level of revenue that would be needed to fund a "baseline" level of operations and investment, comparable to current system capacity and service level. Numerous viable sources of funding from state and local sources, as well fares and system operating income, have been quantified and described in terms of how they compare to the long-term (16- and 22-year) operating and capital need of the baseline level of activity.

It is clear from the analysis conducted thus far that substantial new revenue sources would need to be tapped to fund the baseline system or something similar. Unmet operating costs would be within the reach of a funding package built around fare increases and a ferry funding district of sufficient size that includes participation by at least a portion of east sound residents. Meeting the far more substantial capital preservation and replacement needs, however, would require a much larger revenue base, suggesting either very significant fees levied on a multicounty ferry district or a more modest statewide levy.

Completion of the WSF Draft Long-Range Plan will provide updated information about a preferred level of ferry operations and capital investment that is responsive to ESHB 2358, as well as one or more reduced level of operations scenarios that anticipate a much more constrained funding environment. The Commission recommends continued analysis of funding options more closely tailored to these alternative operating and investment scenarios, and will make final recommendations on a preferred funding strategy upon conclusion of that process.

Appendix A. Fare Policy Ideas

The Cambridge Systematics team is studying several possible changes to ferry fare policy intended to increase long-term revenues for the system. Initial findings are presented in this appendix. After revision, this appendix may serve as a component of the draft funding plan.

The team needs Commission input on which, if any, of these policies to pursue in more detail for the funding study. In addition, the team needs input on the role of the existing ferry fare revenue model in our study. PB Consult maintains a detailed fare revenue model that is significantly more sophisticated than what could be developed by the CS team for the limited purposes of our study. If any of the fare policy ideas in this appendix are worthy of serious consideration, it may be advisable to ask Washington State Ferries to use the model to estimate revenue implications.

The following types of fare changes are addressed in this appendix:

1. Across the board fare increase;
2. Fuel surcharge;
3. Increase in the seasonal fare surcharge;
4. Peak-period fare surcharge;
5. Reduction in frequent user discounts;
6. Surcharge on oversize vehicles;
7. Simplification of the fare structure; and
8. Indexing of fares to inflation.

Each option is discussed below. Note that all calculations of revenue from fare increases are estimates based on revenue and ridership projections provided by PB Consult. The estimates are illustrative "ball park" figures. They take into account the current elasticities of demand in the revenue model, but are subject to error due to aggregation of fare categories[18].

The revenue projections below are for 2009 only. This year was chosen because it is the first complete year in the forecast period (2008 actuals were not yet available at the time of preparation). Note that the projections assume fares will be 2.5 percent higher in 2009 than in 2008. Thus, all of the increases discussed in this appendix would be on top of the 2.5-percent assumed increase.

[18] There are currently hundreds of fare types charged by WSF; these are aggregated into six groups within the revenue model. They are passenger full, passenger commuter, passenger other, vehicle full, vehicle commuter, and vehicle other.

1. Across the Board Fare Increase

Ferry revenues could be raised across the board, either by a flat dollar amount per fare category or by a flat percentage increase for each fare category. For example, raising all fare categories by 10 percent would generate about $9 million in additional revenues in 2009. For reference, system operating costs amount to about $200 million per year.

2. Fuel Surcharge

Any fare increase could take the form of a fuel surcharge, which would be listed as a separate line item on the fare media. The fuel surcharge could be readjusted on a periodic basis to account for increases or decreases in the cost of fuel. This would be intended primarily to: 1) make the fare increase more palatable and understandable to ferry riders, and 2) to offset a part of the impact of the recent dramatic rise in the cost of fuel (see Table A1 below). Many commercial airlines, taxi companies, and other fuel-dependent businesses are implementing fuel surcharges. BC Ferries has recently done the same[19].

A fuel surcharge could be structured a number of ways, for example:

- A flat charge unrelated to the cost of fuel could be added to the fare (e.g., $1.00 per ticket sold, or a 10-percent fare increase), but listed as a separate line item to help offset the cost of fuel.
- The total difference between the previous year's fuel expenditures and projected fuel expenditures could be calculated each year and made up through fare increases in the subsequent year. For example, in fiscal year (FY) 2007, WSF spent $41.5 million on fuel compared to about $38 million budgeted in the FY 2006 16-year plan. WSF could recover the difference of $3.5 million by adding a surcharge to fares in the FY 2008. The burden of the surcharge could be distributed to reflect varying fuel usage by route (the surcharge would be greater on longer routes). The advantage of this method is that the surcharge would raise the amount needed to cover unexpected fuel cost increases in the previous year.
- Every percentage increase in fuel costs could be linked to a percentage increase in fares in the subsequent year. For example, fuel costs rose by 6.1 percent between FY 2006 and FY 2007. Fares could have been adjusted by the same percentage, or by a proportional percentage (e.g., one-half of 6.1 percent). The disadvantage of this method is that it would generate an amount unrelated to fuel expenditures.

---

[19]See BC Ferries July 24th press release: http://www.bcferries.com/bcferries/faces/attachments?id=34392; and a related article, BC Ferries to Hit Riders with New Fuel Charge: http://www.ctvbc.ctv.ca/servlet/an/local/CTVNews/20080611/BC_new_seabus_080611?hub=BritishColumbiaHome.

- Fuel expenditures over a certain "cap" in one fiscal year could be collected from riders through a fare increase in the next fiscal year. For example, WSF could set a fuel expenditure cap of $40 million per year, and recover any amount above that cap from riders by increasing fares in the subsequent year by whatever percentage necessary to make up the difference.

Table A.1 Washington State Ferries Fuel Costs

Year	Total Cost	Gallons	Average Price Per Gallon	Annual Price Change
FY 2003	$19,144,729	20,432,452	$0.94	–
FY 2004	$20,748,091	17,805,640	$1.17	24.4%
FY 2005	$30,081,305	17,400,875	$1.73	48.4%
FY 2006	$39,115,894	17,324,333	$2.26	30.6%
FY 2007	$41,513,418	17,324,333	$2.40	6.1%
FY 2008*	n/a	n/a	$2.75	14.8%

Source: WSF Budget Office.

*Based on average weekly diesel price (from WA Dept of General Administration).

3. Increase in the Seasonal Fare Surcharge

WSF applies a seasonal fare surcharge of about 25 percent[20] between May 1st and mid-October of each calendar year. The surcharge does not apply to passengers (walk-ons or vehicle passengers) or to vehicles paying with a multiride card (*Wave2Go*).

WSF could raise additional revenues from by increasing the surcharge to beyond 25 percent. As an example, if the average seasonal fare surcharge was increased to about 40 percent (from 25 percent)[21], about an additional $2 million could be raised in a calendar year.

The advantage of increasing the seasonal surcharge is that it affects summer riders who are less sensitive to price increases than winter riders. Results of the 2008 WSF Customer Survey showed that fares may be increased up to 16 percent on summer riders and still be considered "not expensive", while fares on winter riders would have to be discounted by 6 percent to be considered not expensive.

[20] The seasonal surcharge for certain types of fares is slightly higher. For example, the surcharge on elderly/disabled passengers on the Bainbridge route is 29 percent for elderly/disabled and drivers, and 38 percent for elderly/disabled motorcycle riders.

[21] This represents an effective increase of about 6 percent for the vehicle full fare category and about 12 percent for the vehicle "other" category (primarily oversize vehicles).

4. Peak-Period Surcharge

Washington State Ferries is currently exploring the possibility of instituting a peak-period fare surcharge or an off-peak discount, primarily as a means of managing demand during peak periods. Such a differential pricing strategy may also be a means of generating additional system revenues.

A simple method of calculating additional revenue from a peak surcharge is to divide revenues from an across-the-board increase by the approximate share of traffic in the peak. This assumes that peak travel has the same composition as off-peak travel (e.g., same proportion of multiride tickets, same proportion of elderly driver tickets, etc.); and that no mode shifting would occur as a result of the charge. Although both assumptions are likely false, the estimate still helps to bound revenues that could be generated from the surcharge. For example, if a 10-percent fare increase on vehicular travel generates about $6.6 million in a year, then a 10-percent surcharge on peak-period travel only would generate about one-third of that, or $2.2 million per year, since peak weekday travel is about one-third of all travel[22].

Washington State Ferries is developing its own detailed estimates of how much additional revenue could be raised from a peak-period surcharge, taking into account many of the complexities outlined above. The results of their work will provide a more precise estimate of the revenue implications of a peak surcharge.

5. Surcharge on Oversized Vehicles

Washington State Ferries has a special fare category for oversized vehicles. Increasing fares for vehicles in this group would generate additional revenues, and may also help encourage the use of smaller vehicles, thereby saving space on the ferry and potentially reducing capital costs in the long term. A fare increase of 10 percent on oversize vehicles would generate about $1.6 million per year in additional revenues.

6. Reduction in Frequent User Discounts

Frequent riders may receive substantial discounts. The amount of the discount varies by season and route. For example, those who purchase a multiride card on the Seattle-Bainbridge route receive a 25-percent discount during the off-season and a 57-percent discount during the peak season[23] (due to the fact that they are not subject to the peak-season surcharge).

---

[22] According to the WSF/WSTC 2008 Customer Survey.

[23] A multiride card on the Seattle-Bainbridge route costs $184.40 and is good for 20 rides, or an average of $9.24 per ride. This is a 25-percent discount off the regular vehicle fare of $11.55 and a 57-percent discount off the peak season fare of $14.55.

Given the steep discounts received by frequent users, it is not surprising that their elasticity of demand is lower than for other riders, indicating that fares could be raised on these groups without losing as many riders. For instance, a 15-percent increase on both passengers and vehicles purchasing the multiride card would yield about $4 million in additional revenue per year. Even with this increase, the average fare paid by multicard users would about 20 percent lower on average for multiride passengers, and 37 percent lower on average for multiride drivers.

7. Simplification of the Fare Structure

Washington State Ferries' fare collection process is dominantly manual. This contributes to longer vehicle boarding times and traffic backing up to travel lanes. A more efficient approach would be to install toll gantries at all boarding locations, allowing fares to be collected automatically through transponders.

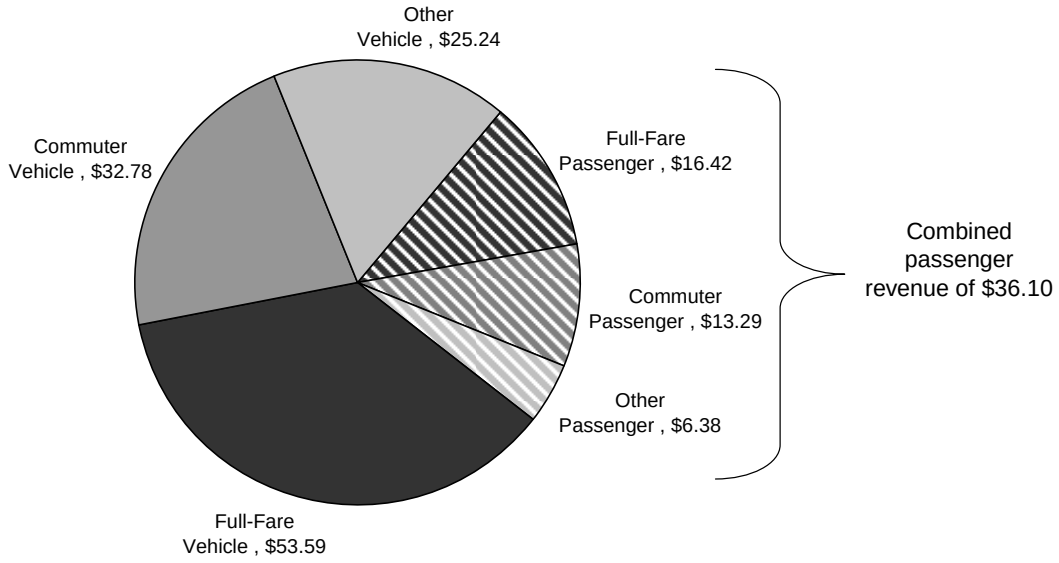
One of the main roadblocks to implementation of an automated fare collection system is the complexity of the current fare structure. In particular, the existence of a special fare category for vehicle passengers, who cannot be counted automatically, makes electronic fare collection difficult. Other potentially problematic types of fares are the special fares for oversize vehicles, motorcycles, motorcycle sidecars, over height vehicles, seniors, and youth.

Members of the Washington Senate have requested that Cambridge Systematics conduct a very preliminary investigation of the revenue implications of going to a drastically simplified fare structure that would allow automatic collection.

One simple means of considering the revenue implication of a fare structure change is to consider current sources of revenue by fare category. Figure A.1 below shows projected revenue by six aggregated fare categories for FY 2009. It shows that revenue from all categories of passengers will total about $36 million in FY 2009. About one-half that revenue, or $18 million, can be attributed to vehicle passengers[24]. Assuming that the vehicle passenger category were eliminated, about $18 million per year would have to be raised per year from other types of fare categories. Using the elasticities currently in the revenue model, fare increases of more than 30 percent on all vehicle fares would be necessary to generate that much revenue.

[24] According to a 2007 Rider Segment Report issued by Washington State Ferries, vehicle passengers comprised one-half of all passengers, and walk-on passengers comprised the remaining one-half.

Figure A.1 FY 2009 Projected Fare Revenues by Category
In Millions



Source: PB Consult, FY 2009 Fare Revenue Projections.

However, that figure may not be accurate due to the fact that elasticities are not reliable for very large fare increases. Further study would be needed to determine how riders might react to such large vehicle fare increases, while taking into account the added convenience of an automatic fare collection system.

There are a number of other questions that would need to be explored to determine the feasibility of a transition to automatic fare collection, such as the following:

- Which types of fare categories (besides the vehicle passenger category) would need to be altered or eliminated to allow automatic fare collection? Would it be possible, for example, to continue discounts for seniors and the disabled through a special registration system? How would such discounts be administered and enforced?
- To what extent would the new system encourage fare evasion, for instance from walk-ons getting into vehicles in order to avoid paying a fare?
- How would riders respond to the changes in the fare structure? Would the convenience of an automated system offset some of the burden of certain types of fare increases? Would riders split the cost of the increased fare with their passengers?

- How much would the toll infrastructure cost? Toll gantries typically cost in the range of $300,000 per lane[25]; for example, $900,000 for a three-lane gantry. That figure only covers roadside equipment; it does not include the cost of back office support, communication systems, or transponders.
- Where would toll gantries be installed? Is there sufficient space for them in all locations?
- Could the automated system be interoperable with existing toll systems, such as WSDOT's "*Good 2 Go!*"?
- How would unionized workers be transitioned into the new system? Could they be used for enforcement or for back office toll processing activities?
- Are there any alternatives to a tolling system that would achieve a similar result? What about on-board toll collection?

Such questions are outside the scope of the ferry funding study. A separate study would be necessary to pursue them in detail.

8. Indexing to Inflation

Cambridge Systematics has previously raised the possibility of indexing fares to inflation. In the past, fare increases have been highly erratic, resulting in an unpredictable situation for both riders and for WSDOT's financial planners. Real fares have declined over time, and in spite of recent increases, remain below 1960s' levels[26].

The WSF financial plan assumes fares will increase every year by 2.5 percent. This rate of increase is not consistent with past increases, which have been highly erratic and have not kept pace with inflation. This lack of predictability makes it difficult for WSF to accurately forecast its subsidy needs.

To achieve a more predictable stream of fare revenues, CS recommends that a system of indexing to inflation be a central component of the ferry funding plan. The Bay Area Rapid Transit (BART) system may be a good model for how automatic fare indexing can be achieved. In 2003, the BART board passed a directive allowing an automatic fare increase every other year to adjust to inflation, without any input from outside entities[27]. BART has not suffered a

[25] Federal Highway Administration, http://ops.fhwa.dot.gov/tolling_pricing/value_pricing/tools/index.htm.

[26] Washington State Ferries and Berk & Associates, 2006. Exhibit 29 in the Washington State Ferries Draft Long-Range Strategic Plan, 2006-2030.

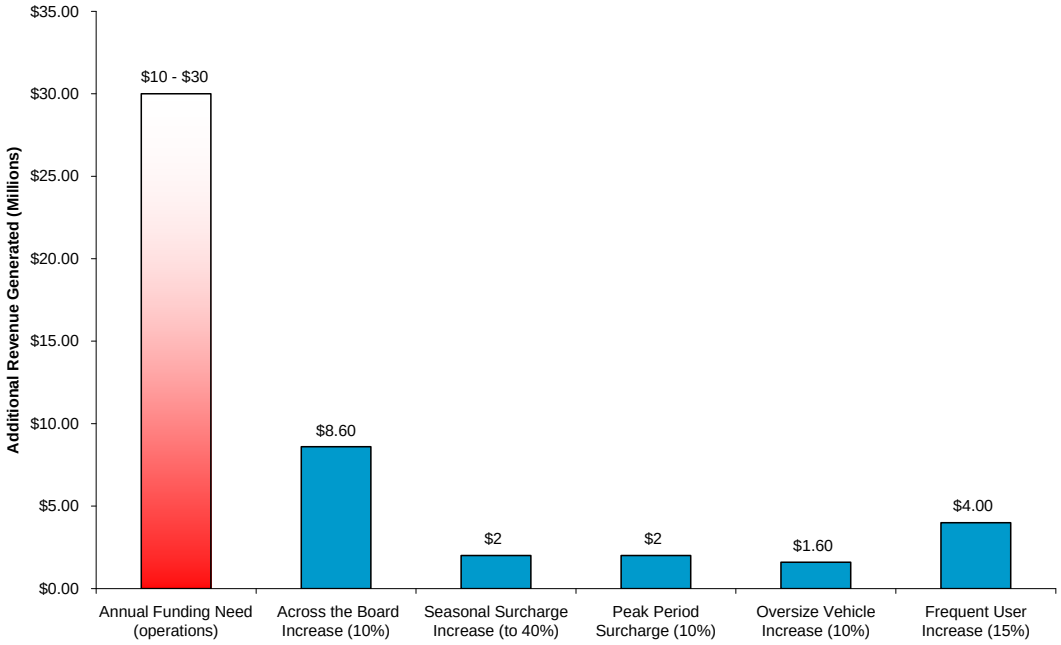
[27] Relevant article: http://findarticles.com/p/articles/mi_qn4176/is_20030523/ai_n14550765.

ridership decline because of the increases; in fact, ridership since 2003 has grown by more than 20 percent[28].

Summary

This appendix has discussed a number of types of fare increases. Figure A.2 below shows approximately how much additional revenue could be earned from some of the increases in FY 2009, compared to the approximate funding need to cover the operating gap in a given year (ranges from about $10 million to $30 million). The estimates take into account fare elasticity, but are subject to some error due to the fact that fare categories are aggregated.

Figure A.2 Estimated Revenue from Fare Increases
FY 2009



The clear conclusion to be drawn from this chart is that none of the types of increases is likely to cover the entire operating gap. Additional state subsidy will likely be needed to cover a portion of the gap. However, fare increases of 10 percent across the board could cover one-third to one-half of the gap in most years; not an insignificant amount.

Table A.2 below summarizes the types of increases discussed in this appendix, along with their pros and cons. The CS team needs guidance on which ideas, if

[28]Source: BART average weekday exits by fiscal year, http://www.bart.gov/docs/station_exits_FY.pdf.

any, to analyze in more detail, potentially through the WSF/PB Consult fare revenue model.

Table A.2 Summary of Fare Increases

Type of Increase	Potential Yield (Millions)	Policy Purpose	Pros and Cons
Across the board increase	About $9/year from a 10% increase	Revenue generation only	Raises the greatest amount of money, but serves no policy purpose other than revenue generation
Fuel surcharge	Varies depending on how surcharge is implemented	Reduce uncertainty associated with fuel price escalation	May be more palatable to riders than a regular fare increase, but adds another level of complexity to an already complex fare structure
Seasonal surcharge	About $2.00 a year if vehicle surcharge is increased to about 40% of regular fare (from 25%)	Revenue generation only	Summer riders are less sensitive to fare increases than winter riders
Peak-period surcharge	About $2.00 a year for a 10% surcharge on peak travel (vehicle only)	Reduce peak congestion; possibly reduce capital needs	Peak weekday riders are slightly less sensitive to fare increases than off-peak riders
Oversized vehicle surcharge	About $1.6 a year for a 10% surcharge on oversized vehicles	Potentially encourage the use of smaller vehicles	Would focus the burden of the fare increase on freight
Reduction in frequent user discounts	About $4.00 a year if vehicle and passenger commuter fares increased by 15%	Revenue generation only	Frequent users may demonstrate opposition to fare increases
Simplification of fare structure	This would not be intended to raise revenue	Reduce wait times and queuing	Requires detailed study
Indexing fares to inflation	No "real" increase – keeps fare revenues matched to inflation	Improve stability and predictability in fare revenues	Necessary for the predictability and stability of fare revenues over time

Source: Cambridge Systematics using data from PB Consult (FY 2009 projections from the Washington State Ferries revenue model received August 2008).

Note: These estimates are illustrative "ball park" figures. They take into account the elasticities of demand in the revenue model, but represent aggregates of fare categories and thus are subject to error. The estimates are based on FY 2009 ridership projections from the revenue model. The projections assume fares will be 2.5 percent higher in that year. The increases illustrated here would be on top of the 2.5 percent assumed increase.

Appendix B. Assumptions Used in Revenue Forecasts

Table B.1 Assumptions Used in State Tax and Fee Revenue Forecasts

Year	Key Assumptions Used in Revenue Forecast
MVET	• Used vehicle fleet values for passenger and truck vehicles from Washington State Joint Transportation Committee MVET study (2006) as a base. Base values were draw from "Alternative 5," where the tax base for cars and light trucks equals 85% of the manufacturer's price and the tax base for medium and heavy trucks equals 100% of the purchase price. • Increased vehicle fleet value by 5 percent per year, a value suggested by the Washington State Transportation Revenue Technical Forecasting Group; it is slightly lower than historical trends in vehicle fleet value increases. • Reduced revenues by 0.66% based on average fee administration costs reported by the Washington State Department of Revenue.
Motor Vehicle Registration Fee	• Used 2005 vehicle registrations as a base (divided 2005 fee revenues by $30, the fee amount). • Increased registrations every year by 1.3%, the average annual rate of driver population growth between 2008 & 2023 (projected by WSDOT Financial and Economic Analysis Office). • Reduced revenues by administrative costs of 0.66%, based on average fee administration costs reported by the Washington State Department of Revenue.
Motor Vehicle Weight Fee	• Used 2007 weight fee revenue as a base. Revenues provided by WSDOT Office of Financial Planning and Economic Analysis. • Increased revenue every year by 1.3%, the average annual rate of driver population growth between 2008 & 2023 (projected by WSDOT Financial and Economic Analysis Office). • Reduced first year revenues by administrative costs of 0.66%, based on average fee administration costs reported by the Washington State Department of Revenue.

Table B.2 Assumptions Used in Local Tax and Fee Revenue Forecasts

Year	Key Assumptions Used in Revenue Forecast
MVET	• Same as state; county-level fleet values calculated by multiplying county-level registrations by average vehicle value (drawn from Washington State Joint Transportation Committee MVET study).
Motor Vehicle Registration Fee	• Same as state; used 2006 vehicle registrations by county as a base (data drawn from the Office of Financial Management Counties Profile).
Utility Tax	• Used housing units by county as a base (2006 Census). • Increased units each year by the projected average annual increase in housing units by County between 2005-2010 (Washington State Office of Financial Management). • Reduced revenues by administrative costs of 0.66%, based on average fee administration costs reported by the Washington State Department of Revenue.
Property Tax	• Used 2006 total assessed property values by County, reported by the Washington State Office of Financial Management. • Applied an average annual rate of revenue increase suggested by consultation with Washington Economic and Revenue Forecast Council (3.2%) based on past experiences, for 2010 and onward. Used a more conservative growth estimate (1%) for 2008 and 2009. • Reduced first year revenues by administrative costs of 0.66%, based on average fee administration costs reported by the Washington State Department of Revenue.